

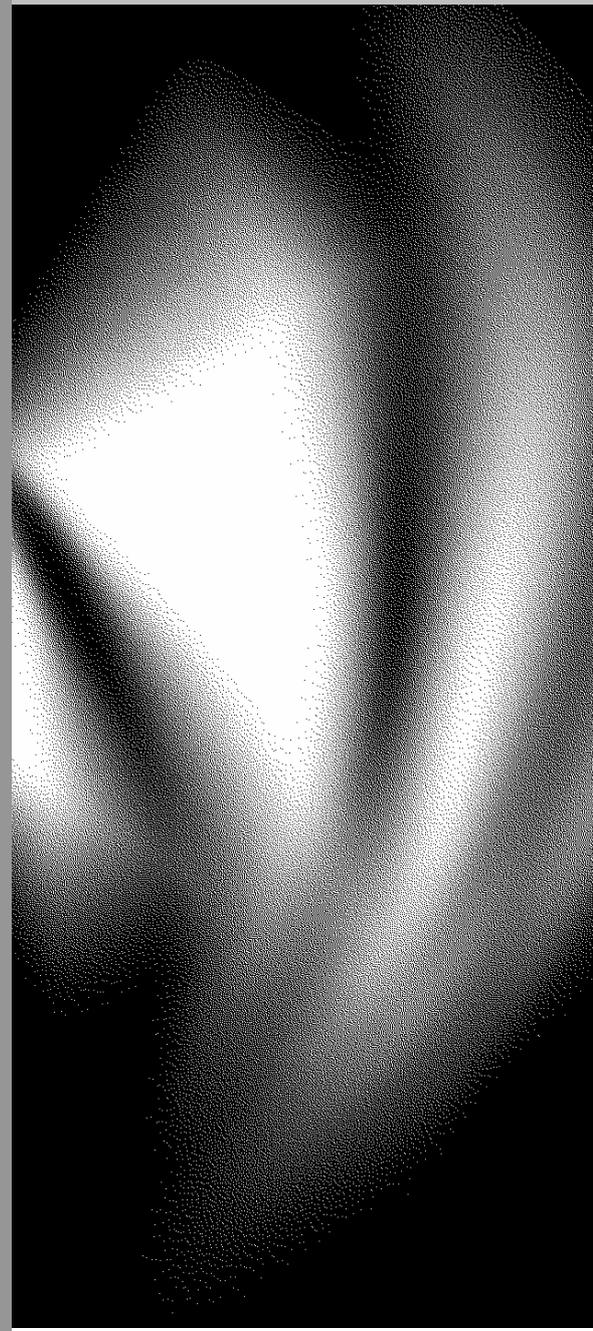


Australian Government
Productivity Commission

Reform of Building Regulation

Productivity
Commission
Research Report

17 November 2004



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The Productivity Commission

The Productivity Commission, an independent agency, is the Australian Government's principal review and advisory body on microeconomic policy and regulation. It conducts public inquiries and research into a broad range of economic and social issues affecting the welfare of Australians.

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Foreword

This research report has been prepared by the Commission in response to a request by the Parliamentary Secretary to the Treasurer, on behalf of the Australian Government.

The objective of the study was to examine the contribution that reform of building regulation, under the auspices of the Australian Building Codes Board (ABCB), has made to the productivity of the building industry and economic efficiency. In addition, the Commission was asked to examine the scope for further reform to make additional gains.

The study was overseen by Commissioner Tony Hinton, with a staff research team led by Sue Holmes.

The Commission's report has drawn on information and views from a wide range of sources, including companies engaged in the building industry, industry associations, interest groups and government agencies in all States and Territories. The study has benefited from round table discussions held to consider findings and recommendations of a draft report, as well as submissions from interested parties. The Commission wishes to thank the many people who have contributed to the study.

Gary Banks
Chairman
November 2004

Terms of reference

The Productivity Commission is requested to undertake a research study examining the contribution that national building regulatory reform under the auspices of the Australian Building Codes Board (ABCB) has made to the productivity of the building and construction industry and its impact on economic efficiency in Australia as well as the potential that such reform has to make further gains.

The Commission is to:

1. Investigate progress in building regulatory reform in the building and construction sector since 1994 and the need and scope for further regulatory reform post-2005, including:
 - a) whether the Inter Government Agreement on building regulation reform of 1994, as revised, is achieving its objectives;
 - b) whether the Inter Government Agreement is producing gains for the industry and maximising net benefits for the Australian economy;
 - c) whether the Inter Government Agreement is providing efficiency and cost effectiveness in meeting community expectations for health, safety and amenity in the design, construction and use of buildings through nationally consistent building codes, standards and regulatory systems;
 - d) the need for on-going national co-ordination of the Building Code and related reforms; and
 - e) the effectiveness of the Australian Government's current role in building regulatory reform.
2. If it is found that further work in this area is appropriate post-2005, report on:
 - a) the Australian Government's role in future building regulatory reform;
 - b) whether the objectives of the Inter Government Agreement adequately address the need for future reform; and
 - c) whether the ABCB or alternative models would be more efficient and effective in delivering the reforms.
3. Make recommendations based on the findings.

In undertaking the study, the Commission is to consult widely with interested parties comprising the Australian Government, State and Territory agencies, relevant industry bodies and practitioners including:

- Australian Building Codes Board
- Australian Government - Department of Finance and Administration
- Australian Government - Department of Prime Minister and Cabinet
- Housing Industry Association
- Master Builders Association
- Australian Construction Industry Forum
- Australian Council of Sustainable Energy
- Alternative Technology Association
- Australia and New Zealand Solar Energy Society
- Urban Ecology Australia
- Royal Australian Institute of Architects
- Institute of Engineers Australia
- Australian Institute of Building
- Australian Institute of Building Surveyors
- Building Designers Association of Australia
- Property Council Australia

The Commission is required to report within 9 months of receipt of this reference.

(signed)

ROSS CAMERON

17 FEB 2004

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Abbreviations and explanations

Abbreviations

ABCB	Australian Building Codes Board
ABS	Australian Bureau of Statistics
ACA	Active Cooperation Agreement
ACCI	Australian Chamber of Commerce and Industry
ACEA	Association of Consulting Engineers Australia
ACF	Australian Conservation Foundation
ACIF	Australian Construction Industry Forum
ACTU	Australian Council of Trade Unions
AEA	Australian Elevator Association Ltd
AFAC	Australasian Fire Authorities Council
AGO	Australian Greenhouse Office
AIB	Australian Institute of Building
AIBS	Australian Institute of Building Surveyors
ALGA	Australian Local Government Association
AMCA	Airconditioning and Mechanical Contractors Association
AMUBC	Australian Model Uniform Building Code
ANTA	Australian National Training Authority
ANZFRMC	Australia New Zealand Food Regulation Ministerial Council
ANZSES	Australian and New Zealand Solar Energy Society
ANZSIC	Australian New Zealand Standard Industrial Classification
APS	Australian Public Service
ATC	Australian Transport Council
AUBRCC	Australian Uniform Building Regulations Coordinating Council
BASIX	Building Sustainability Index
BCA	Building Code of Australia
BCC	Building Codes Committee

BIA	Building Industry Authority
BPIC	Building Products Innovation Council
BPS	Basic Product Set
BRAC	Building Regulation Advisory Committee Building Regulations Advisory Council (NSW)
BRANZ	Building Research Association of New Zealand
BRBWA	Builders' Registration Board of Western Australia
BRRT	Building Regulation Review Taskforce
BSA	Building Services Authority
C&D	Construction and Demolition
CEO	Chief Executive Officer
CER	Australian New Zealand Closer Economic Relations Trade Agreement
CIB	International Council for Building Research and Documentation
CoA	Commonwealth of Australia
COAG	Council of Australian Governments
CRC	Cooperative Research Centre
CSES	Centre for Strategic Economic Studies
CSIRO	Commonwealth Scientific and Industrial Research Organisation
CTA	Construction Training Australia
DAF	Development Assessment Forum
DDA	<i>Disability Discrimination Act 1992</i>
DEH	Department of the Environment and Heritage
DEWR	Department of Employment and Workplace Relations
DISR	Department of Industry, Science and Resources
DITR	Department of Industry, Tourism and Resources
DOFA	Department of Finance and Administration
DPMC	Department of the Prime Minister and Cabinet
DTS	Deemed-to-Satisfy
FHOS	First Home Owner Scheme
FMA Act	<i>Financial Management and Accountability Act 1997</i>
FPA	Fire Protection Association
FSANZ	Food Standards Australia New Zealand

GBC	Green Building Council of Australia Ltd
GDP	Gross Domestic Product
GST	Goods and Services Tax
GTAP	Global Trade Analysis Project
HBWI	Home Builders Warranty Insurance
HIA	Housing Industry Association Ltd
HREOC	Human Rights and Equal Opportunity Commission
ICA	Insurance Council of Australia Ltd
ICT	Information and Communications Technology
IGA	Inter Government Agreement
ISO	International Organization for Standardization
IT	Information Technology
ITAB	Industry Training Advisory Body
ITR	Industry, Tourism and Resources
JAS-ANZ	Joint Accreditation System of Australia and New Zealand
MBA	Master Builders Australia Inc
MBAWA	Master Builders Association of Western Australia
MFP	Multi-Factor Productivity
MOU	Memorandum of Understanding
MRA	Mutual Recognition Agreement
NatBACC	National Building and Construction Committee
NATHERS	Nationwide House Energy Rating Scheme
NCP	National Competition Policy
NCVER	National Centre for Vocational Education Research Ltd
NECA	National Electrical and Communications Association
NFIA	National Fire Industry Association
NGV	National Gallery of Victoria
NOHSC	National Occupational Health and Safety Commission
NRTC	National Road Transport Commission
NTC	National Transport Commission
OCA	Olympic Coordination Authority
OECD	Organisation for Economic Cooperation and Development
OH&S	Occupational Health and Safety

ORR	Office of Regulation Review
PC	Productivity Commission
PCA	Plumbing Code of Australia Property Council of Australia
PIA	Preliminary Impact Analysis
PPP	Purchasing Power Parity
PWC	PricewaterhouseCoopers
QDC	Queensland Development Code
R&D	Research and Development
RBP	Registered Building Practitioner
RCM	Reliability Centred Maintenance
RD	Regulation Document
RIS	Regulatory Impact Statement
RPB	Registered Building Practitioners
RTO	Registered Training Organisation
SAI	Standards Australia International Ltd
SDB	Standards Development Board
SEDA	Sustainable Energy Development Authority
TAFE	Technical and Further Education
TBT	Technical Barriers to Trade
TTMRA	Trans-Tasman Mutual Recognition Arrangement
TVP	Technical Validation Panel
VET	Vocational Education and Training
WMAP	Waste Management and Awareness Program
WTO	World Trade Organization

Explanations

Billion	The convention used for a billion is a thousand million (10 ⁹).
Findings	<i>Findings in the body of the report are paragraphs highlighted using italics, as this is.</i>
Recommendations	<i>Recommendations in the body of the report are highlighted using bold italics with an outside border, as this is.</i>

OVERVIEW

Key points

- The building sector is subject to a diverse range of regulations by all levels of government. The Building Code of Australia (BCA), in particular, contains building standards aimed at achieving health, safety and amenity objectives.
- There has been work over many years to bring a national approach to building regulation. Progress has been made, particularly in:
 - reducing differences in mandatory technical requirements across jurisdictions
 - changing the BCA to performance-based requirements, rather than prescriptive requirements.
- However, this reform work is far from complete and recent developments are undermining a national and soundly based system of building regulation. The future agenda for building regulation reform should include:
 - further reducing variations across jurisdictions
 - better articulating the performance-based requirements
 - examining ways to enhance administration, compliance and enforcement systems
 - examining the BCA's approach to property protection from fire, in dialogue with interested parties, in order to resolve differences
 - examining ways to reduce the erosion of a national approach to building regulation caused by actions of Local Governments through their planning powers
 - applying rigorous analysis to incorporating environmental requirements in the BCA.
- The Australian Government, as well as the State and Territory Governments, should continue to be actively involved in building regulation reform (including funding).
- A new Intergovernmental Agreement should be negotiated by all nine governments, so as to:
 - clarify the Australian Building Codes Board's mission statement and objectives of building regulation reform
 - strengthen the commitment to national consistency
 - affirm the importance of a whole-of-government approach to building regulation initiatives
 - outline the future work agenda, drawing on recommendations contained in this study
 - emphasise the importance of the Australian Building Codes Board giving priority to its core business
 - strengthen the use of regulatory impact analysis
 - agree to shared and increased funding and removal of some charges for the BCA.

Overview

The Commission has been asked to assess the contribution that reform of building regulation has made and could further make to the productivity of the building and construction industry. Reform of building regulation essentially refers to the pursuit of a nationally consistent regulatory framework for the building and construction sector. The Australian Building Codes Board (ABCB) was established in 1994 via an Inter Government Agreement (IGA) to coordinate this reform work. It has government and industry representation. The ABCB decides on the content of the Building Code of Australia (BCA), without reporting to a Ministerial Council, while the State and Territory Governments are responsible for adopting the Code into regulation and enforcing its implementation.

The terms of reference request assessment of the progress of reform of building regulation. They also request an assessment of whether further reform should be undertaken after 2005 — when the current funding arrangements for the ABCB are due to cease — and whether this requires coordination at the national level with continued Australian Government involvement. If so, the Commission has been asked to advise whether the objectives of the IGA should be amended and what institutional structure should be used for delivering reforms in the future.

The study has found that reform of building regulation has delivered greater certainty and efficiency to the building industry, as well as benefits to the broader community. The Board has successfully reduced many regulatory differences across jurisdictions, especially those based on the core elements of the Code, and established the framework for a performance-based regulatory regime.

The influences on productivity in the building sector are varied, including not only regulatory reform but also factors such as labour force skills, workplace relations, research and development and information technology. While it is difficult to quantify the separate contribution of each to industry performance and productivity growth, available evidence suggests that regulatory reforms implemented or overseen by the ABCB have been positive. Their biggest impact appears to have been through encouraging skill acquisition, reducing costs and encouraging and enabling innovation.

Overall, the Board has established sound processes and criteria for assessing and developing the requirements that are contained in the BCA and has undertaken

activities to support its regulatory reform agenda, including increasing awareness of the Code, training and research.

The ABCB provides an effective vehicle for governments to collaborate and work for the benefit of the community and industry to deliver the reforms. The Commission considers that leadership by, and the support of, the Australian Government is critical to the continuing success of reform of building regulation.

There is widespread recognition that the reform work is far from complete and there is considerable support for the Board to continue in some form. Additional reforms should lead to further productivity gains.

There are several concerns, including that the Board's focus has tended to be diverted from its core activity of better articulating the performance-based requirements of the Code and keeping the deemed-to-satisfy requirements up-to-date. In addition, recent events, such as the introduction of energy-efficiency standards by a number of jurisdictions that are different to those contained in the BCA, are undermining the role of the Code as the technical basis for a national and soundly-based system of building regulation.

The Commission has made a range of suggestions to improve the IGA and the Board's operations. Changes are proposed to: the objectives (contained in the IGA) to be pursued by the Board; priorities for the work program; and the processes and criteria applied to a number of its functions, especially the development and assessment of standards.

Why should governments intervene?

There are some broad characteristics of the building industry that may justify government intervention.

Complex information and knowledge gaps

It is difficult for some buyers and users of buildings to ascertain and/or understand some of the characteristics of buildings. Purchasers, who are infrequent buyers, are not easily able to ensure that the building in fact meets the qualities they think they are paying for and are often not even aware of what could go wrong. Also, users (such as tenants and workers) are often not in a position to fully assess building performance, as once a building is completed some aspects are concealed within the building fabric and impossible to inspect thoroughly.

Aspects of buildings that are subject to information gaps with potentially significant adverse impacts include:

-
- structural soundness
 - effectiveness of the protection against fire
 - use and impacts of materials, such as asbestos, that could cause painful and life-shortening diseases
 - ability to withstand the impacts of earthquakes or cyclones in areas prone to either.

Other (non life-threatening) matters include the quality of service the building provides, for example, sound and weather-proofing.

Spillover benefits (or positive externalities)

Positive externalities refer to the benefits experienced by people, other than those directly engaged in a particular activity without paying for them. As the provider cannot reap the full returns, less is produced than if they could be charged for. Research often provides spillover benefits. In addition, once the knowledge has been created, it would cost no more to allow more people to benefit from it. From a public policy perspective, the challenge is to provide incentives for the creation of building relevant research, while allowing as many practitioners as possible to access it.

Spillover costs (or negative externalities)

Negative externalities refer to the costs experienced by people other than those directly engaged in a particular activity, such as noise impacting on neighbours. Hence, in the absence of government intervention (or other means of action), the person responsible does not bear the full costs of the adverse effects and so has no incentive to redress those effects. Other aspects of buildings that may have adverse effects on others include:

- deficiencies in building safety
- the costs imposed on owners of adjacent buildings when little has been done to contain fire to the building in which it occurs
- emission of toxic or saline substances into public drains
- adverse environmental impacts from energy use (where the price does not reflect the effects of greenhouse gas emissions or other pollution).

Guaranteeing minimum standards

Governments sometimes intervene in the market for the social purpose of ensuring certain minimum standards of accommodation (including access to buildings) for all. It is most unlikely that certain building qualities, such as access for people with disabilities, would be delivered widely in the absence of government intervention.

Various intervention options

These potential shortcomings associated with buildings do not, in themselves, justify regulation. While regulation is one form of intervention, it may not be the best option. There are ways other than government regulation to address market imperfections. For example, with respect to knowledge imbalances, governments can undertake education campaigns or facilitate access to relevant information. Consumers can engage an architect or a building inspector to act on their behalf to provide the level of expertise and quality control to help bridge the knowledge gap. They can also research a builder's reputation before hiring, or they may be able to take out insurance against poor building outcomes. Contracts and appeals through the tribunals and courts also provide for financial and legal redress, albeit possibly costly and uncertain, when consumers experience adverse outcomes.

Similarly, with spillover benefits, direct government subsidisation of the benefit may be far more efficient and effective than regulation and, for spillover costs, taxing the adverse effect can often produce better results than regulation.

However, information programs may not reach everyone; some individuals may be unable to absorb or act on information provided; and a significant number 'do not know what they don't know'. In addition, some benefits are not easily subsidised, some costs are not easily taxed and at times governments have other reasons for not choosing these 'fiscal' instruments.

In these cases, policy makers might look to regulation. Technical standards contained in the Code set a baseline level of protection for safety, health and amenity of buildings, for all parties. While building codes are clearly a key element in any strategy in this regard, they are only part of the overall building system — and are not always the most effective means of achieving particular goals with respect to building.

Processes and criteria

The policy challenge for building regulation is to achieve a balanced combination of instruments, without unduly restricting innovation and consumer choice, to address weaknesses in the market. The risk of excessive regulation or overly demanding standards clearly exists.

Soundly based regulatory assessment processes and criteria are therefore needed to assess the case for intervention and, if there is one, to select the best instrument(s). Policy makers should clearly identify the nature and size of the problem, assess how their proposal will solve it relative to alternatives, and take account of side-effects.

It may be that individuals, communities and companies operating in the market will find ways to address weaknesses themselves, without government intervention.

Regulatory system

The building sector is subject to a diverse range of regulations by all levels of government (as depicted in the diagram below). Reform of building regulation essentially has been directed at improving this regulatory system, with a particular focus on achieving a national framework. Assessing this reform requires an examination of the ABCB's performance in relation to its mission statement, objectives and work program.

ABCB's mission statement should be revised

The Board's mission does not provide clear guidance and needs to be revised. Currently the Board's mission statement, as contained in the IGA, is:

To provide for efficiency and cost effectiveness in meeting community expectations for health, safety and amenity in the design, construction and use of buildings through the creation of nationally consistent building codes, standards, regulatory building requirements and regulatory systems.

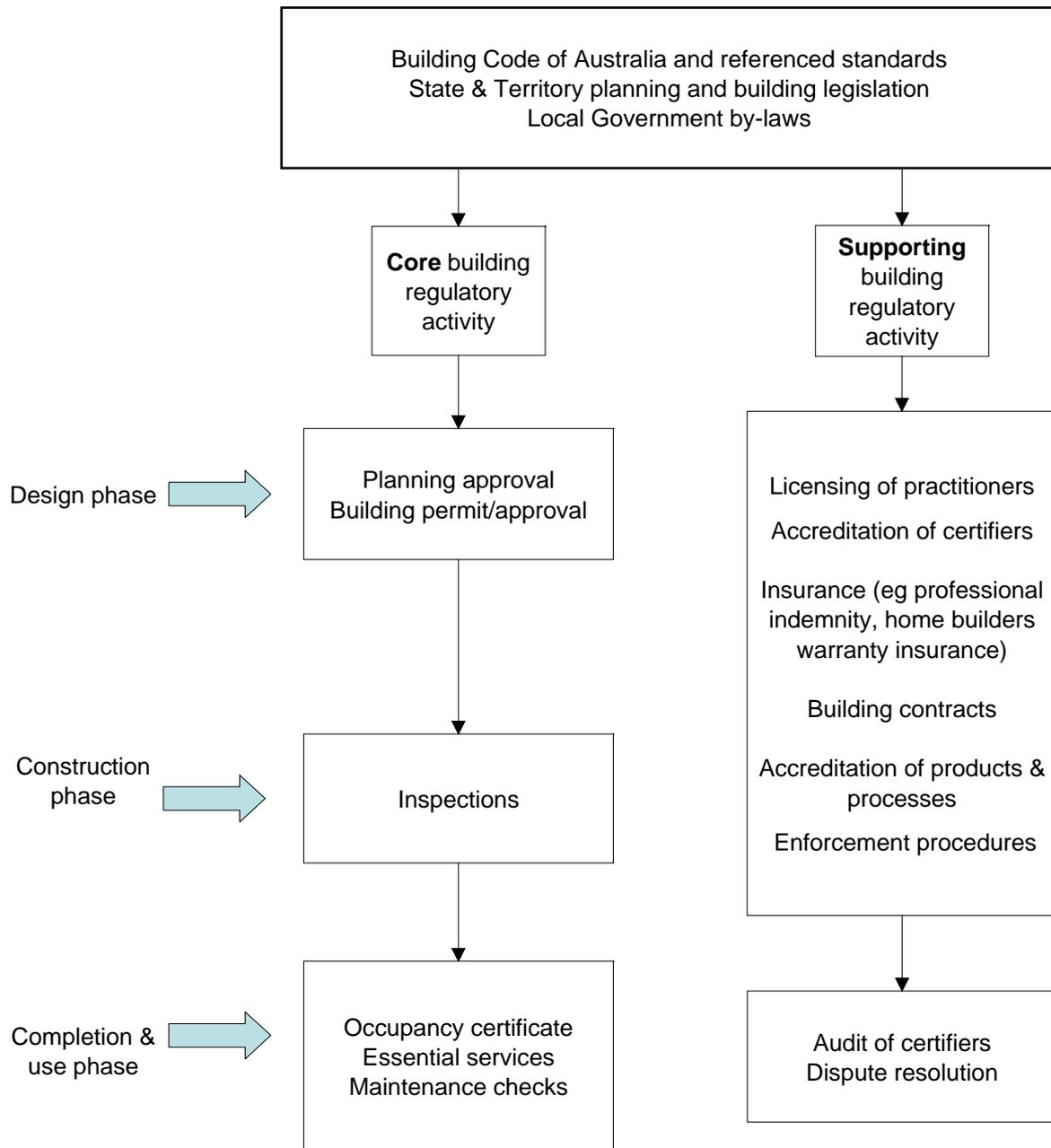
The focus in the mission statement on the overall objective of **efficiency** is appropriate and should remain.

While **community expectations** currently guide the identification of the levels of building performance that are to be embodied in the Code, the concept of 'community expectations' is operationally unhelpful and unclear. What the community expects may not:

- be closely related to what it is prepared to pay for
- be well correlated with what presents the greatest risk to health, safety and amenity
- provide the solution that generates the greatest net benefits among viable alternatives
- be well formed in the case of information difficulties
- be a basis on which to form a consensus, due to the diversity of views.

Hence, meeting community expectations should not be the ultimate goal and should not be an explicit component of the Board's mission statement.

Regulation of the building process



The mission statement specifies **health, safety and amenity**, as the areas to be addressed by the Code. While health and safety are relatively straightforward terms, amenity is less easily defined and does not offer precise guidance as to what areas of building performance should be regulated. In the past, the Board has treated amenity as being of secondary importance to health and safety concerns. However, more recently, amenity appears to have been used as a catch-all, for example providing the justification for recent moves into access requirements for people with

disabilities. Health, safety and amenity should remain as legitimate areas for regulation.

More recently, **sustainability** has been addressed by the Board, even though it is not included in its mission statement. The meaning of the term ‘sustainability’ is not altogether clear: it is hard to define and is more difficult than the concept of ‘environment’ to relate to market failures. Most of the environmental issues relating to building can be categorised into two broad groups: negative environmental spillovers and use of under-priced non-renewable or scarce natural resources. The actual term used is less important than ensuring rigorous analysis to establish whether there is a market failure and a case for intervention via setting standards for some environmental impacts. The Commission considers that ‘**environment**’ (rather than ‘sustainability’) should be added to the list of broad areas assessed by the Board for coverage by the Code, as long as the case for any environmental standards clearly satisfies the net benefit test.

National consistency is the most significant national reform initiative with the objective of improving efficiency. The national framework allows for variations by regions with different characteristics, such as cyclone risks. Continuing the pursuit of national technical standards is important.

Reflecting these considerations, the Commission considers the Board’s mission statement should be amended to:

In addressing issues relating to health, safety, amenity and the environment: to provide for efficiency in the design, construction and use of buildings through the creation of nationally consistent building codes and standards; and to contribute to effective regulatory systems.

The terms — health, safety, amenity and environment — should be used to guide and not to prescribe the Code. Rigorous testing of market failure and analysis of alternative instruments, via the Regulatory Impact Statement (RIS) process, are more important than seeing whether problems fall into one of these categories. It is important that the assessment process, as progressed via RIS requirements, is rigorous in determining whether a significant problem exists, that no better alternative to the Code is available, and, if regulation is chosen, that it is the minimum effective to address the issue.

ABCB’s objectives should be revised

Currently, the Board has a large number of objectives. These require the Code to be: efficient, cost-effective, representative of minimum, least-cost solutions, representative of modern solutions, and targeted at safety, health and amenity.

These terms suffer from over-determination, overlap and inconsistency. For example, any regulation that is efficient may not necessarily be the least-cost solution if the nature of the risk or problem justifies a higher cost solution.

The objectives also direct the Board to consult with industry and promote awareness of regulatory reform, amongst others. This also points to confusion between means and ends.

Efficiency should be the principal objective

The pursuit of **efficiency** should be the prime objective of the standards adopted by the Board. Within the efficiency framework, the community is taken into account, but in a way that places greater emphasis on what fully-informed, community members would be prepared to pay for. This approach deals with community expectations and preferences in the context of a cost-benefit analysis, thus helping to make choices more realistic and cognisant of resource constraints.

The Commission proposes the following new objectives (under the umbrella of the revised mission statement with its emphasis on pursuing efficiency):

Proposed Objectives for the Board

Proposed Objective 1

Establish building codes and standards that are the minimum necessary to achieve relevant health, safety, amenity and environmental objectives efficiently.

In determining the area of regulation and the level of the requirements, the Board should ensure that:

- there is a rigorously tested rationale for the regulation
- the regulation would generate benefits to the community greater than the costs (that is, net benefits)
- there is no regulatory or non-regulatory alternative (whether under the responsibility of the Board or not) that would generate higher net benefits.

Proposed Objective 2

Ensure that, to the extent practicable, mandatory requirements are:

- consistent across the States and Territories
- performance-based
- verifiable
- based on international standards
- expressed in plain language.

Proposed Objective 3

Identify and encourage the implementation of improvements to compliance and enforcement systems for building regulation.

Proposed Objective 4

Encourage reduced reliance on regulation by providing the forum to explore alternative mechanisms for delivering outcomes, including:

- non-mandatory guidelines
- training to increase skill levels of building practitioners and certifiers
- improvements to the licensing, accreditation and auditing of building practitioners.

Currently, a number of support activities undertaken by the Board, such as consultation, are contained in the objectives. Instead, the Commission proposes that these not be included in the objectives, but still be covered by a revised IGA.

ABCB's work program

The core elements of the regulatory reform strategy to date have been:

- developing and updating the BCA
- pursuing consistent adoption of the BCA by all States and Territories
- introducing performance-based standards
- achieving a rationalisation of the administration of building regulation
- seeking consolidation of other mandatory requirements impacting on building into the BCA.

Most of these should continue to be part of the Board's work program. However, the future work program would benefit from some re-focussing.

Updating the Code

While performance-based regulation and alternative solutions have led to significant cost savings and more modern and innovative designs, the prescriptive deemed-to-satisfy solutions are used by most builders most of the time.

The BCA is often described as a ‘living document’. It needs regular updating to reflect ongoing innovation in building technologies and practices. However, it appears that the Board has given insufficient attention to:

- maintaining and updating the Code, especially to revising deemed-to-satisfy solutions to ensure they embody up-to-date building practices
- improving the clarity of performance requirements
- establishing equivalence between some deemed-to-satisfy solutions and performance requirements.

Work on these areas has been given lower priority of late in order to focus on the development of provisions for access for people with disabilities and energy efficiency. Given the considerable investment made in and use made of the Code, the ABCB should place a higher priority on maintaining and updating the core technical requirements in the Code.

National consistency

The driving force behind the establishment of a national body for building regulation, and the development of a national code, was to promote consistency in building regulations across the States and Territories. Many submissions strongly endorsed the ABCB’s efforts to have a nationally consistent BCA.

National consistency is desirable for a number of reasons. Builders and designers, especially those that operate across jurisdictional borders, can use and apply a single set of mandatory requirements, rather than having to be familiar with multiple codes. Further, building designs that comply in one jurisdiction do not have to be reworked or altered to comply in other jurisdictions. This is especially useful for owners or users of buildings, such as wholesalers and retailers, who wish to use the same design for multiple buildings across jurisdictions. Manufacturers of building products strongly support a national scheme, as this allows them to manufacture a single product to meet demand across all jurisdictions, rather than having to develop different products for each jurisdiction. Tradespeople benefit from consistent building designs as they can apply their skills in any jurisdiction. The development of a national code is also likely to be significantly more cost effective for government than developing eight separate State and Territory based codes.

Within the framework of a national code, the BCA caters for the specific needs of geographic areas. For instance, the Code applies specific requirements for protection against storms in areas likely to be subject to cyclones. This gives the code sufficient flexibility, without resorting to variation according to jurisdictional borders. A national code, with uniform requirements according to geographic/climatic needs, is superior to uniformity *within* each State.

Overall, the ABCB has been successful in significantly reducing the number of variations to the Code, while still catering for legitimate regional variation. Nevertheless, more still needs to be done, especially as recent amendments to the Code, such as energy efficiency requirements, have increased inconsistencies.

The pursuit of the national consistency objective would be considerably assisted if the Australian, State and Territory Governments re-confirmed their commitment to national consistency. For example, they could agree to the presumption of automatic adoption of the Code by all States and Territories, along with a requirement to give reasons to the Board if a jurisdiction diverges from an agreed regulation or other reform. This would provide transparency and clarity to the building industry and the community as a whole, as well as provide a discipline on introducing variations that are not justified on cost-benefit grounds. As well, the Board should establish a process for regular monitoring and reporting on the progress with implementation of the Code and other agreed reforms, including reporting on any divergence from such reforms.

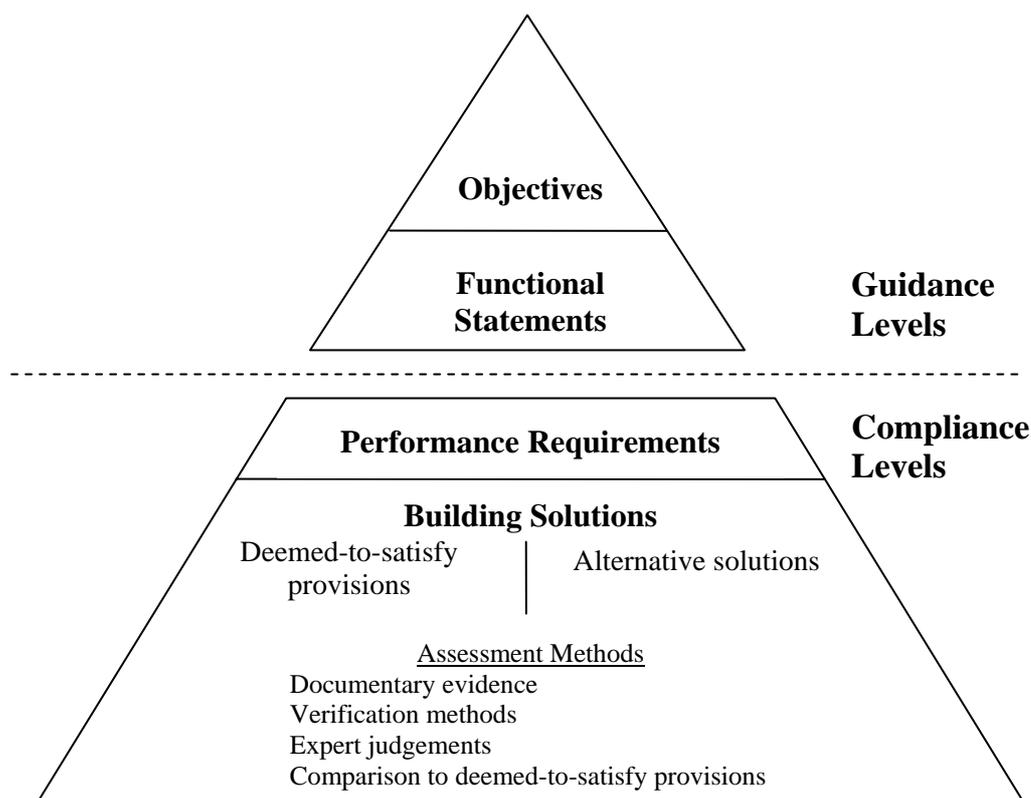
Ensure performance-based standards are verifiable and equivalent with deemed-to-satisfy solutions

One of the primary objectives pursued was a conversion from a prescriptive to a performance-based code (with prescriptive style, deemed-to-satisfy solutions included as one way to meet the performance requirements). (See the BCA structure depicted in the diagram below.) Performance-based regulations have several advantages compared with prescriptive regulation, allowing innovation and providing the flexibility to choose the cheapest option to achieve desired outcomes. There is widespread endorsement of the move to base the BCA on performance-based requirements.

However, the majority of the ‘performance’ requirements contained in the Code do not provide readily measurable outcomes nor specify verification methods. The standards are more accurately described as ‘principle’ based, specifying broad, but not measurable, targets or objectives for buildings. For instance, for structural provisions, the Code does not specify precisely the loads that must be withstood by any building (such as wind-speed loads or dead loads) — rather it requires that the

building must withstand ‘actions to which it may reasonably be subjected’. This means it is not possible to judge whether objectives have been met and gives little guidance to building practitioners.

BCA Structure



Source: BCA 2004, vol. 1, p. A0.4.

Other weaknesses with the current version of performance-based regulation include:

- in some instances, the deemed-to-satisfy provisions are not devised to achieve the same level of performance as that required by the equivalent performance-based standard, distorting the choices of builders and designers, and creating competitive disadvantages and/or biases toward using one or the other solution;
- costs can be shifted from the construction of a building to the use phase, transferring savings in capital costs to maintenance and other costs, which poses problems if the owner or occupier is not fully informed. This may be a particular issue for multi-dwelling residential buildings where the developer can make savings by passing such costs on to the ultimate owners and occupiers of the building;
- more pressure is put on the expertise of designers and certifiers to devise and assess alternative solutions than is the case with deemed-to-satisfy solutions; and

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- some insurers are unable to assess accurately the risks associated with alternative designs, possibly resulting in higher premiums for alternative solutions.

Although the performance-based approach of the BCA has the capacity to deliver significant benefits to the building industry and consumers and is widely endorsed, the above issues need to be addressed, as part of the future work program.

Facilitate improvements in administration and compliance

Good technical standards are not sufficient to ensure good building outcomes. The Code's ultimate value depends on the extent to which it is complied with and enforced efficiently by the States and Territories. A number of mechanisms are employed within regulatory systems for building to encourage and support compliance with building codes and regulations. These include:

- training to help ensure building practitioners are competent to implement Code-compliant building solutions
- licensing and registration schemes, including ongoing competency requirements and audits
- insurance requirements to provide incentives for compliance and some measure of consumer protection
- contractual arrangements to clearly set expectations and the consequences of non-compliance
- inspection and other approval mechanisms
- enforcement mechanisms to address cases of non-compliance with regulations
- dispute resolution processes
- information dissemination to ensure players know the 'rules of the game' and where to go for help.

There have been ongoing concerns about poor building outcomes due to non-compliance with the Code and to the operation of different administrative systems across jurisdictions. Shortfalls that have been identified, particularly in relation to NSW by the *Report upon the Quality of Buildings* (Campbell 2002), include:

- buildings that do not meet building codes, including those that had been certified as compliant by either council or private certifiers
- builders and certifiers not operating in the interests of the property owner
- dwellings not being consistent with the approved design that had been certified for occupation

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- the operation of unqualified builders.

Underlying causes of these problems have been attributed to:

- a lack of transparency and consistency in dealing with the approval of alternative solutions
- poor qualification and skill levels of some building practitioners, especially certifiers
- potential conflict of interest issues for certifiers
- inconsistent administration of maintenance requirements
- difficulties in dispute resolution.

Therefore, although it is widely agreed that the reforms involving performance-based regulation have brought significant benefits, there have also been some unintended side-effects. For example, introducing performance-based standards requires a higher level of competence of designers and certifiers. In New Zealand, regulation of inputs to the building process, including the skills of people, has been seen as the most effective way to increase the quality of building outcomes and improve compliance with performance-based standards, as well as overcome recent problems with weather tightness. It has become clear that reforms to the building sector require an integrated approach because each part of regulation is dependent on other parts.

To date, the ABCB has played a relatively small role with respect to regulatory systems, compared with its activities in other core areas, such as developing the Code. For example, while the ABCB has recently introduced national competency standards and an accreditation framework for certifiers, these have not been generally adopted by jurisdictions.

While the Board has a mandate to improve ‘regulatory systems’, it has found it difficult to make progress in this area. The momentum behind initiatives to gain greater national consistency in administration of the Code and to contribute explicitly to achieving improved compliance appears to have waned. While national consistency for administration is desirable, it is less important than each of the States and Territories devising regulatory systems that are effective in delivering satisfactory building outcomes at reasonable cost. The ABCB’s contribution to efforts in this area by jurisdictions could include:

- providing a forum for jurisdictions to share information and best practices
- developing a best practice administrative model.

A focus on effectiveness, combined with an approach to improve progressively administrative processes related to compliance and enforcement, is likely to be more effective than targeting national consistency at this time. There appears to be scope for the Board to provide the forum through which jurisdictions could explore ways to improve enforcement and compliance.

Seek consolidation of, or consistency with, other regulations impacting on building

In principle, the Code should contain all mandatory requirements for buildings, so that they are more easily accessible to practitioners in the industry. It is not good practice to have various (especially conflicting) requirements for building in separate documents. However, the Board's efforts to incorporate other mandatory requirements for building into the Code have had mixed success.

One stumbling block is that the Code has been required to embody 'minimum' standards, while many other mandatory requirements are designed to address the issue at an 'optimum' level. If consolidation is to progress, this divergence in objectives needs to be addressed. The answer lies in placing greater emphasis on setting standards at an 'efficient' rather than a minimum level, where appropriate.

Work should continue on incorporating mandatory requirements affecting buildings into the BCA but, where this is not possible, the Board should work to remove conflicts in objectives and ensure that other mandatory requirements are easily accessible to the industry. One approach would be to require that all extra requirements be included in an appendix to the Code, as is already done by Tasmania, to improve transparency.

Environmental impacts, access to buildings for people with disabilities, plumbing and gas, property protection from fire, and local government requirements have drawn most comment concerning either a case for consolidation or greater consistency.

Environmental impacts

The Australian Government asked the ABCB to develop energy-efficiency standards in order to reduce greenhouse gas emissions and endorsed a recommendation from the Laver (2000) review of the ABCB to pursue energy efficiency. Taxing negative environmental impacts and ensuring that the scarcity value of non-renewable resources is reflected in their prices often are more effective policies than standard setting. However, the Australian Government has, for the time being, decided not to use taxation or tradeable emission permits to reduce greenhouse emissions (although some State Governments are considering this

approach and NSW now has a scheme in place). Rather, it has adopted other instruments, including energy-efficiency standards, as have several other jurisdictions. To the extent that such regulation provides net benefits, it would be preferable for them to be adopted through a national approach and using a rigorous assessment system.

Access to buildings for people with disabilities

Following extensive public consultation, a draft RIS on *Proposals to formulate Disability Standards for Access to Premises and to amend the access provisions of the BCA* was released for public comment in February 2004. Following an assessment of comments and any necessary revisions, a final proposal is being developed and is expected to be submitted to ministers in early 2005.

The ABCB should continue to work on amending the BCA provisions in relation to the performance of buildings for access for people with disabilities. The access provisions of the BCA should be amended and linked to the *Disability Discrimination Act 1992* (DDA) so that compliance with the Building Code would also ensure compliance with requirements of the DDA, including allowance for an ‘unjustifiable hardship provision’ for both new and existing buildings.

Plumbing and gas

As long as national consistency in plumbing requirements is achieved across jurisdictions through the Plumbing Code of Australia (PCA) and its contents are not in conflict with the BCA, the additional costs in attempting to incorporate plumbing requirements into the BCA may not be warranted. The ABCB should continue to work with the National Plumbing Regulators Forum to identify and resolve differences between the BCA and the PCA and on-site gas requirements.

Property protection from fire

Requirements relating to fire safety make up the majority of technical provisions of the Code. They differ from State and Territory legislation for fire brigade services, because they do not aim to protect the building that is on fire to the same extent. The situation is further complicated by the claim that the deemed-to-satisfy requirements of the Code, largely derived from the old Code, embody a degree of property protection above that of the performance-based provisions.

Some insurance companies also consider that the Code’s performance-based fire safety solutions tend to be deficient in relation to property protection for

commercial buildings. There have been cases where owners have found that a BCA compliant and council approved building does not meet the requirements of some insurers.

The question of property protection needs to be addressed by the ABCB. The ABCB should work, in consultation with interested parties (including fire authorities) towards determining whether the BCA should pursue property protection with respect to fire and, if so, resolving differences in the level of protection provided across jurisdictions. It is important that this is done using rigorous impact analysis.

Local Government requirements

Increasingly, Local Governments have been imposing building requirements, via their planning approval processes, beyond the scope of the BCA. These relate to such matters as access for people with disabilities and bushfire, water, waste management, energy efficiency and salinity issues. Local Governments often see themselves as generally more in tune with community views and able to respond rapidly to emerging issues, perceived community needs or local political agendas. However, this has created inconsistencies for building regulation across jurisdictions and undermines gains from national consistency.

Local Governments usually do not conduct an adequate level of impact analysis of their regulations. New regulations may be introduced that contain extra requirements on business, with increased costs, for uncertain benefit.

Given that local councils will continue to impact on building, some approaches that will improve outcomes should be put in place. Options include:

- subjecting changes to a suitably rigorous justification process involving impact analysis, via the originating State
- maintaining a register of State RISs undertaken for Local Government building regulations, to help inform Board discussions
- facilitating inter-jurisdictional discussions, with the objective of establishing national agreement over a delineation between regulation-making powers relating to planning and building
- assessing the feasibility of requiring any Local Government requirement that is inconsistent with the BCA to be approved by the responsible State Minister (similar to the Victorian approach).

Research to support work program

The ABCB's research program underlies both the technical standards developed for the BCA and other guidance offered to building practitioners. It appropriately addresses a weakness in the market that otherwise would result in under-provision of research that is relevant to the industry. While the ABCB's research program is generally regarded as being successful, research efforts should be prioritised in line with the Board's new work program.

Regulatory Impact Analysis

Good regulatory impact analysis is central to devising effective and efficient building standards, as well as determining whether or not regulation is required at all. The ABCB should maintain its good record with conducting RISs and make some improvements, particularly:

- ensure risk assessment forms a central element of the analysis, whenever significant health and safety issues are under consideration
- ensure RIS-type analysis is undertaken at an early stage in the development of standards that are expected to be referenced in the BCA and that are likely to have non-minor effects.

Increase funding and reduce charges for the Code

The Australian Government has approved funding for the ABCB to the end of 2004-05. If the Australian Government accepts the Commission's recommendation that funding of (and involvement in) the ABCB should continue, then the question remains at what level.

The ABCB supplements its funding by charging for access to the Code. Charging for a minimum level of access is not consistent with the Australian Government's cost recovery guidelines. Mandatory legal requirements should be readily accessible. The cost of the Code appears to impede access and use (uptake by subscribers as a proportion of potential users is around 30 per cent). Easier access is also likely to have a positive impact on compliance. Hence, the ABCB should provide a basic level of access to the BCA free of charge. This would require, in the absence of reducing activities, an increase in funding from the Australian, State and Territory Governments.

Board role and membership

Implementing the recommendations of this study would widen the mandate of the Board. Rather than solely being the ‘keeper of the Code’, the ABCB would more actively contribute to improving regulatory systems.

Several participants raised concerns about the independence of the Office, specifically that it is linked too closely to the Department of Industry, Tourism and Resources and the Australian Government. The need for greater independence could be addressed by a Memorandum of Understanding (MOU) between the Board and the Department. Creating a statutory body in place of the Board is not warranted. If a subsequent review found that the MOU had not been successful in achieving the necessary degree of autonomy, other options could be examined further.

As the ABCB does not report to a Ministerial Council and is the final decision maker on Code amendments, it is essential that governments continue to have majority representation on the Board. This is crucial to ensuring that ABCB decisions serve the public interest and that jurisdictions have ‘ownership’ of outputs and therefore commitment to their adoption. For at least one meeting each year the government representatives should be of sufficient standing and authority such that the Board truly is a board of ‘decision makers’. It is also important that these representatives take a ‘whole-of-government’ perspective, given that many issues concern several portfolios.

In contrast with many intergovernmental standard-setting bodies, the ABCB has direct industry representation on the peak decision-making Board. While there is potential for conflicts of interest, industry representation contributes valuable expertise and helps to ensure acceptance by the building sector.

New Intergovernmental Agreement (IGA)

A new IGA by the Australian, State and Territory Governments would be the mechanism for implementing the proposals in this study and to take forward the continuing process of building regulation reform. This IGA, drawing on the recommendations of this study, should:

- state the ABCB’s revised mission statement and objectives
- re-confirm commitment to national consistency
- outline the future work program
- agree to shared and increased funding and removal of some charges for the BCA

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- strengthen the use of regulatory impact statements to enhance rigour for mandatory regulations
 - affirm the independence of the Chairman of the ABCB
 - confirm ABCB membership and ensure government members represent whole-of-government positions.

Findings and recommendations

Impact of reforms

FINDING 4.1

The productivity performance of the construction industry as a whole (including engineering construction) has been lower than that of the market sector over the past 20 years. However, there was a notable turnaround in the 1990s, from negative to positive labour and multifactor productivity growth.

FINDING 4.2

The influences on productivity in the building sector are varied, including labour force skills, workplace relations, firm organisation, economies of scale, research and development, technology uptake, innovation and information technology. It is difficult to quantify the separate contribution each has made to industry performance and productivity growth.

FINDING 4.3

The regulatory reforms implemented or overseen by the ABCB appear to have had a positive impact on industry productivity. Their impact appears to have been mainly through encouraging skill acquisition, reducing costs and encouraging and enabling innovation. There is scope for further productivity gains from additional reforms.

Building Code of Australia

FINDING 5.1

The majority of the ABCB's objectives pursued through the BCA are appropriate. However, some objectives are unclear, appear to overlap and have the potential to be in conflict.

RECOMMENDATIONS 5.1

The objectives of the ABCB should be revised in order to remove conflict, overlap and imprecision.

FINDING 5.2

The ABCB has reduced the number of jurisdictional variations in the BCA. However, there are still significant inconsistencies, particularly in relation to energy efficiency regulations, which have recently been added to the BCA.

FINDING 5.3

The ABCB has introduced a framework for performance requirements for all areas of building covered by the BCA. However, actual requirements still follow a 'principle-based' approach, broadly outlining what is required, but not offering readily measurable or verifiable requirements, even though it was intended to revise and convert them to measurable 'performance-based' standards. In some areas of building performance regulated by the BCA, the deemed-to-satisfy solutions prescribe a level of performance that is not aligned with the performance requirement.

RECOMMENDATION 5.2

The ABCB should enhance efforts to make the performance-based requirements in the BCA more effective. This should include providing measurable criteria to aid judging compliance and clarifying the assessment process to be used.

RECOMMENDATION 5.3

The ABCB should enhance efforts to ensure that all deemed-to-satisfy provisions in the BCA offer an equivalent level of building performance to that required by the performance requirements.

RECOMMENDATION 5.4

Where a building solution imposes maintenance requirements throughout the life of a building, these should be required by regulation to be documented and be readily available to prospective owners and occupiers.

RECOMMENDATION 5.5

The ABCB should consider the feasibility of referencing more than one standard in the Code as deemed-to-satisfy solutions where multiple standards satisfy the performance requirements.

FINDING 5.4

The ABCB has implemented a number of strategies aimed at improving the clarity and accessibility of the BCA. However, it appears that the BCA may still be difficult for some users, in particular builders and tradespeople, to access and understand.

The ABCB should continue to examine ways for the BCA to be expressed more clearly and simply, to articulate building requirements better and to enable access by all levels of building practitioners.

Code coverage

There are various mandatory requirements impacting on building that have not been incorporated into the BCA.

The ABCB should continue to work on incorporating into the BCA, as far as practicable, all mandatory requirements affecting building.

The ABCB should explore ways to make all mandatory requirements affecting building accessible and transparent. Avenues to explore include:

- *the States and Territories could require all state/territory-based mandatory requirements affecting building to be included in their appendices to the BCA along the lines of the Tasmanian model and could ensure that the BCA requirements prevail over any other mandatory requirements; and*
- *the Australian Government could include an appendix in the BCA that lists all Australian Government mandatory requirements that impact on building.*

The ABCB should continue its work on amending the BCA provisions in relation to the performance of buildings for access for people with disabilities. The access provisions of the BCA should be amended and linked to the Disability Discrimination Act 1992 so that compliance with the BCA would also ensure compliance with obligations under the Act, including allowance for an ‘unjustifiable hardship provision’ for both new and existing buildings.

Incorporating the Plumbing Code of Australia (PCA) into the BCA would not seem to be warranted at this stage.

RECOMMENDATION 6.4

The ABCB should continue to work with the National Plumbing Regulators Forum to identify and resolve differences and remove unnecessary overlap between the BCA and the PCA and on-site gas requirements.

RECOMMENDATION 6.5

The ABCB should continue its work to identify and resolve differences between the BCA and on-site electrical installation and telecommunications requirements.

RECOMMENDATION 6.6

The ABCB should continue its work on removing inconsistencies between occupational health and safety (OH&S) legislation and the BCA and incorporating relevant OH&S requirements that impact on building into the BCA.

FINDING 6.3

A number of jurisdictions are implementing their own energy performance requirements for buildings. These are leading to substantial divergences across jurisdictions, thereby eroding the national approach for building regulation.

RECOMMENDATION 6.7

The ABCB should put in place a system for ensuring a national approach to the application of any BCA energy-efficiency standards for buildings across jurisdictions and that the assessment of these standards are soundly based (with benefits greater than costs).

RECOMMENDATION 6.8

The ABCB should continue to examine problems associated with adverse environmental impacts of building, starting with energy, water, indoor environmental quality and materials. These, and any other proposals for mandatory standards for other factors, need to be rigorously assessed to ensure that:

- their role is evaluated against other instruments, including information provision and market instruments;*
- there is, in fact, a case for regulation; and*
- the level and form of protection they embody would provide a net benefit.*

The degree of property protection from fire in the objectives of the BCA is different to that generally required by fire authorities' legislation (and some insurance companies) in relation to building performance, particularly for commercial buildings.

The ABCB should work, in consultation with interested parties (including fire authorities), towards determining whether the BCA should contain property protection requirements with respect to fire and, if so, resolving differences in the level of protection provided across jurisdictions. This should be done using rigorous impact analysis.

Local governments, through their planning approval processes, are imposing regulations on building. While this may offer benefits, there are concerns about the resulting regulatory inconsistencies across Australia and a lack of rigorous regulatory assessment.

The future work agenda for the ABCB should include an examination of ways to reduce the scope for the inappropriate erosion of national consistency of building regulation by Local Governments through their planning approval processes. Avenues for this include:

- the possibility of Local Governments being required to seek prior approval from the relevant State Government to apply building requirements that are inconsistent with the BCA;*
- requiring these changes to be assessed as to whether net benefits would accrue, via the originating State;*
- maintaining a register of State RISs undertaken for Local Government building regulations to help inform ABCB discussions; and*
- requiring that any Local Government variation that is inconsistent with the BCA to be approved by the responsible State Minister (similar to the Victorian approach, where local council changes to the planning scheme must be approved by the Minister for Planning under an over-arching State policy framework and strategic plan).*

To assist the design of such a system, the ABCB, in consultation with key stakeholders, should examine the possibility of defining a clear delineation

between those issues to be addressed by planning regulation and those issues to be addressed by building regulation.

Regulatory systems: compliance and delivering outcomes

FINDING 7.1

There are concerns that the current compliance and enforcement systems for building regulation may be deficient, to varying degrees across jurisdictions.

FINDING 7.2

The compliance system for building regulation could be improved by jurisdictions establishing more soundly based requirements for licensing, accreditation and audit of building practitioners, including building certifiers. The ABCB could provide a forum for this.

FINDING 7.3

There would be benefits from jurisdictions sharing information and ideas on best practice in the regulation of insurance to formulate and implement more efficient and effective insurance regimes for the building industry.

FINDING 7.4

Improvements to the systems of approval, inspection and certification of buildings should be pursued. Jurisdictions would benefit from sharing information and best practices, particularly in such areas as: systems for the approval of alternative solutions; independence of private certifiers; and the use of self certification and third party certification. The ABCB could provide a forum for this.

RECOMMENDATION 7.1

The ABCB should provide a forum for jurisdictions to work towards reaching agreement as to the most appropriate and efficient provisions for enforcing maintenance requirements.

FINDING 7.5

While there may be benefits from some alignment across jurisdictions of administrative processes, it is not clear that net benefits would arise from harmonisation of all aspects. A progressive approach, advancing harmonisation in those areas with the largest net benefits, may be appropriate. Effective compliance and enforcement is a higher priority than full national consistency at this stage.

RECOMMENDATION 7.2

The ABCB should work at identifying and communicating best practices that improve compliance and enforcement of the BCA. The development of a best practice administrative model, for use by States and Territories, is one option for achieving this.

Code-making processes and access

FINDING 8.1

The ABCB has a relatively good record of compliance with Regulatory Impact Statement requirements, but there is scope for further improvement. It is important for good regulatory systems that the RIS requirements are rigorously applied for BCA amendments.

RECOMMENDATION 8.1

The ABCB should continue to pursue improvement in its use of Regulatory Impact Analysis, drawing on the advice of the Office of Regulation Review.

RECOMMENDATION 8.2

The Australian Government should examine the appropriateness of a non-government entity (Standards Australia International) coordinating Australian representation in international standards' forums and assess the merits of the ABCB having a formal role, in conjunction with SAI, for building and construction standards.

RECOMMENDATION 8.3

The Memorandum of Understanding between Standards Australia International (SAI) and the ABCB should be re-negotiated and the Referenced Documents Protocol revised to provide for a clearer requirement for RIS-type analysis to be undertaken at an early stage in the development of standards that are expected to be referenced in the BCA and that are likely to have non-minor effects.

FINDING 8.2

Delays in reaching agreement and implementing BCA reforms are providing some incentive for unilateral action at the State and Territory or Local Government level. This trend is contrary to the goal of a nationally consistent building code. However, to some extent delays are an inevitable consequence of the need to achieve

agreement across nine jurisdictions; and the need for rigorous and transparent consultation and impact assessment processes.

RECOMMENDATION 8.4

The ABCB should continue its efforts to expedite BCA reforms to the extent possible, whilst maintaining comprehensive consultation and rigorous impact analysis processes.

RECOMMENDATION 8.5

The ABCB, as a high priority, should continue to work towards maintaining and updating the core technical requirements in the BCA.

FINDING 8.3

The number of BCA subscribers is low relative to the number of potential users. This has implications for awareness and compliance. The cost of the BCA appears to be a barrier to improving access, awareness and usage. The ABCB's cost recovery arrangements are inconsistent with the Australian Government's cost recovery guidelines.

RECOMMENDATION 8.6

The ABCB's cost recovery arrangements should be amended to be made consistent with the Australian Government's cost recovery guidelines. The revised Intergovernmental Agreement (IGA) should provide sufficient ABCB funding for the reform agenda and to enable a minimum level of access to the BCA free of charge.

RECOMMENDATION 8.7

The ABCB should continue to work towards minimising the number of referenced standards in the BCA. The Australian Government could review the broader issue of access to standards referenced in legislation/regulation. As part of this review, consideration could be given to the possibility of free access to any standards retained in the BCA.

Other activities of the Board

FINDING 9.1

Overall, the ABCB's research program has been effective and it is important that it continue. The research priorities should be guided by the future work program of the ABCB.

FINDING 9.2

While the ABCB has already made substantial progress toward improving awareness of the BCA objectives and requirements, more needs to be done, particularly in relation to reaching smaller builders, tradespeople, students and consumers.

RECOMMENDATION 9.1

The ABCB should enhance its BCA awareness campaign, including investigating opportunities for further partnerships with universities, colleges and industry in the provision of training.

FINDING 9.3

Greater use by the ABCB of guidance/advisory documents could be a cost-effective mechanism for improving the performance of buildings.

Governance issues

FINDING 10.1

The involvement and support of the Australian Government is critical to the continuing success of building regulation reform.

FINDING 10.2

Overall, the composition of the ABCB membership has been appropriate for the role of the ABCB to date. As the Board's priority should be the public interest, broadly defined, it is appropriate that government representatives are in the majority and that they represent a whole-of-government position.

RECOMMENDATION 10.1

The formula for determining the individual State and Territory Government contributions to the funding of the Board should be reviewed. An option to consider would involve a combination of a minimum base contribution and a pro rata component based on building activity.

RECOMMENDATION 10.2

There should be a recommitment by governments, in a revised IGA, to the objective of consistency across jurisdictions for building regulation. State and Territory Governments should ensure that BCA amendments determined by the

ABCB are automatically referenced in State and Territory legislation and that jurisdictional variations and additions are minimised.

FINDING 10.3

An annual meeting of Ministers (with appropriate whole-of-government backing) may be a useful mechanism to demonstrate ongoing commitment to a nationally consistent approach to reform of building regulation. Ministers could also set broad strategic direction and priorities. Administrative arrangements, such as who would chair such a forum, would need to be determined.

RECOMMENDATION 10.3

The ABCB Chairman should be an additional Board member, rather than being chosen from amongst the Government and industry members. The appointment should be independent from sectional interests and based on a demonstrated capacity to advance the work of the Board.

FINDING 10.4

Overall, current institutional arrangements for pursuing building regulation reform have been reasonably effective. The creation of an Australian Government statutory body is not supported at this stage. However, there is scope for some refinements to structures and processes to further improve effectiveness and efficiency.

RECOMMENDATION 10.4

A formal Memorandum of Understanding should be agreed between the ABCB and the Department of Industry, Tourism and Resources to provide for increased autonomy for the ABCB Office and clearer separation from the Australian Government. The effectiveness of the MOU in addressing concerns about the independence of the Office should be reviewed after two years.

Assessment and the new IGA

FINDING 11.1

The ABCB has made considerable but varied progress in relation to the 10 objectives with which it was tasked by the IGA. In general, the Board has prioritised well. However, there have been some shortfalls and performance can be improved.

The mission statement for the ABCB should be amended to:

In addressing issues relating to health, safety, amenity and the environment: to provide for efficiency in the design, construction and use of buildings through the creation of nationally consistent building codes and standards; and to contribute to effective regulatory systems.

The objectives of the ABCB should be amended to:

Proposed Objective 1

Establish building codes and standards that are the minimum necessary to achieve relevant health, safety, amenity and environmental objectives efficiently.

In determining the area of regulation and the level of the requirements, the Board should ensure that:

- ***there is a rigorously tested rationale for the regulation***
- ***the regulation would generate benefits to the community greater than the costs (that is, net benefits)***
- ***there is no regulatory or non-regulatory alternative (whether under the responsibility of the Board or not) that would generate higher net benefits.***

Proposed Objective 2

Ensure that, to the extent practicable, mandatory requirements are:

- ***consistent across the States and Territories***
- ***performance-based***
- ***verifiable***
- ***based on international standards***
- ***expressed in plain language.***

Proposed Objective 3

Identify and encourage the implementation of improvements to compliance and enforcement systems for building regulation.

Proposed Objective 4

Encourage reduced reliance on regulation by providing the forum to explore alternative mechanisms for delivering outcomes, including:

- ***non-mandatory guidelines***
- ***training to increase skill levels of building practitioners and certifiers***

-
- *improvements to the licensing, accreditation and audit of building practitioners.*

RECOMMENDATION 11.3

The future work agenda of the Board should give priority to the following issues:

- *maintain and update the BCA*
- *clarify performance-based standards*
- *national consistency*
- *consolidation*
- *compliance and enforcement*
- *access, use and egress for people with disabilities*
- *plumbing and gas*
- *property protection against fire*
- *Local Government requirements for building*
- *environment*
- *electrical installation and telecommunications*
- *occupational health and safety*
- *plain language.*

RECOMMENDATION 11.4

A new Intergovernmental Agreement (IGA) should be negotiated by all nine governments, so as to implement many of this study's recommendations. The IGA should:

- *state the ABCB's revised mission statement and objectives*
- *reconfirm the commitment to national consistency of regulatory requirements and systems*
- *outline the future work program*
- *agree to strengthen the use of regulatory impact statements to enhance rigour for mandatory regulations*
- *agree to shared funding and removal of some charges for the BCA*
- *affirm the independence of the Chairman of the ABCB*
- *confirm ABCB membership and emphasise the need for government members to represent whole-of-government positions.*

1 Introduction

The Australian building and construction industry is an important component of the national economy. The value of work done in the building and construction sector (excluding engineering construction) accounted for around 6.3 per cent of GDP and 7.1 per cent of all employed persons in Australia in 2002-03.¹ The output of the building and construction industry can be an end product (for example, a residential dwelling) or an input into the production of other goods and services (for example, a factory or office block). The quality and quantity of activity carried out by the building and construction industry can affect many other sectors of the economy and the wellbeing of society.

In order to ensure a minimum standard of building, governments have regulated the activities of the building and construction industry. Such regulation has traditionally been the domain of the State and Territory Governments, although cooperation and consistency at a national level has been increasing since the mid 1960s. At the national level, the main regulatory instrument is the Building Code of Australia (BCA).

The Australian Building Codes Board (ABCB) was formed via an Inter Government Agreement (the IGA) in 1994 and was charged with progressing national reform initiatives. It has representation from all levels of government, as well as industry. Under the IGA, the Board is responsible for producing, maintaining and amending the BCA and is the lead player in the pursuit of nationally consistent building codes, requirements and regulatory systems.

1.1 Scope of the study

The Productivity Commission has been requested to undertake a research study examining the contribution that national building regulatory reform under the auspices of the ABCB has made to the productivity of the building and construction industry and economic efficiency in Australia. The Commission has also been asked to comment on the potential for further gains from reform. As Australian Government funding for the ABCB is due to cease in 2005, the results of this study

¹ ABS (*Building Activity, Australia*, Cat. no. 8752.0, *Australian System of National Accounts*, Cat. no. 5204.0, *Labour Force, Australia, Detailed*, Cat. no. 6291.0.55.001).

may form input into decisions about future funding arrangements and the future role of the Australian Government in building regulatory matters.

Terms of reference

At the broadest level, the terms of reference require the Commission to assess whether the IGA has been a success. A key question is the extent to which reform under the ABCB, guided by the objectives of the IGA, has resulted in net benefits for the Australian economy, via improvements in productivity and efficiency. These improvements may have occurred not only in the building and construction industry, but also in the wider economy, for example, in sectors where buildings are an important input into production processes.

In assessing the IGA, it is necessary to assess the effectiveness of the ABCB in achieving the objectives set for it in the IGA. These objectives are listed in box 1.1. As part of this assessment, the ABCB's institutional arrangements and the role of the Australian Government in delivering national coordination and building regulatory reform also need to be examined.

The Commission has also been asked to report on whether the current objectives of the IGA adequately address the need for future reform and what model would be most efficient and effective in delivering these reforms. Judging the extent to which the Australian Government's current involvement is central to the achievement of the IGA objectives will help to inform decisions on the most appropriate future model for building regulation.

Spheres of regulation

The range of potential 'spheres' of regulation that are relevant to this study is quite wide. The BCA, a key element of building regulation, relates predominantly to technical specifications. However, building regulation, broadly defined, may also encompass or be affected by: building approval processes; planning approval processes (to the extent they impact on building requirements); standard setting and accreditation of products, people and processes; environmental regulation; some social regulation; some economic and financial regulation (such as insurance); and occupational health and safety (OH&S) regulation.

Box 1.1 Objectives of the ABCB

The original Inter Government Agreement between the Commonwealth Government and the States and Territories to establish the ABCB contained nine objectives to which the proceedings and operations of the Board were to be directed. The tenth objective was added in 2001. The ten objectives are:

1. Establish codes, standards and regulatory systems that are, as far as practicable:
 - consistent between States and Territories;
 - cost-effective;
 - performance based; and
 - based on modern and efficient building practices.
2. Base building requirements on minimum, least-cost solutions which address the regulatory objectives of health, safety and amenity.
3. Investigate and promote opportunities for deregulation.
4. Undertake and promote research which offers innovative and cost-efficient solutions.
5. Consult and liaise with industry to achieve transparency in the reform process.
6. Simplify the wording of building requirements to achieve user friendliness and plain language style.
7. Coordinate and integrate reform activities with those of other agencies to ensure consistency of approach and to encourage consolidation into the BCA of all mandatory requirements affecting buildings.
8. Create an efficient regulatory environment to encourage an internationally competitive building industry.
9. Matters ancillary to its objectives: consulting, training, Action Agenda, conferences and meetings.
10. Undertake education and marketing activities to promote the work of the Board, to increase awareness of building regulatory reform and to increase use of Board publications and products.

Source: IGA, as amended 2001. See appendix B.

Industry scope

The building and construction industry, broadly defined, covers residential and non-residential building and engineering construction, as well as construction trade services. However, as the Commission's terms of reference mainly focus on the BCA, for the purposes of this study, the Commission has defined the industry more narrowly, with the primary focus on those classes of building defined in the BCA

(see box 1.2). The BCA applies to new buildings, certain renovation work in existing buildings, and existing buildings that are to be used for a different purpose from that for which they were originally designed (ABCB 2003a, pp. 4–5).

This study also encompasses the full range of activities, people and skills involved in the BCA building sectors. The process of building can require the coordination of a large number of stages, from the initiation of a project, through design, planning approval, building approval, construction and inspections, occupancy approval and operation and maintenance. Important players, therefore, include developers, project designers, architects, engineers, surveyors and certifiers, project managers, builders, subcontractors, labourers and specialist trades and sub-trades. These people may be employed in a range of firms, from family owned enterprises through to major national and multinational companies.

Further, each sector is supported by a number of other industry segments, such as suppliers and producers of building products and materials; machinery and equipment sectors providing such items as construction equipment and commercial heating and cooling equipment; and client services such as commercial property operators, developers and financiers. These supporting sectors are also considered in the context of the study.

1.2 Conduct of the study

On receipt of the terms of reference, the Commission informed interested parties of the study by a circular and advertisements in major newspapers. The Commission released an Issues Paper in mid-March 2004, seeking written submissions.

The Commission met with a wide range of organisations with an interest in the reform of building regulation, including business entities, industry organisations, professional groups and representatives of the Australian, State, Territory and Local Governments.

After release of the Draft Report in August 2004, round table discussions were held with interested parties in Sydney, Melbourne and Canberra (and Perth via video conference) to assist preparation of the final report.

The Commission received 52 submissions prior to the release of the draft report and another 47 submissions following its release. The Commission thanks interested parties for their participation in meetings and round tables and for their submissions in response to the issues paper and the Draft Report.

Box 1.2 Classes of buildings as defined by the BCA

- Class 1a:** a single dwelling being: a detached house; or one or more attached dwellings, each being a building, separated by a fire-resisting wall, including a row house, terrace house, town house or villa unit; or
- Class 1b:** a boarding house, guest house, hostel or the like with a total floor area not exceeding 300 m² and in which not more than 12 persons would ordinarily be resident.
- Class 2:** a building containing two or more sole-occupancy units each being a separate dwelling.
- Class 3:** a residential building, other than a building of Class 1 or 2, which is a common place of long term or transient living for a number of unrelated persons, including: a boarding-house, guest house, a residential part of a hotel or motel, a residential part of a school, a residential part of a health-care building which accommodates members of staff, or a residential part of a detention centre.
- Class 4:** a dwelling in a building that is Class 5, 6, 7, 8 or 9 if it is the only dwelling in the building.
- Class 5:** an office building used for professional or commercial purposes, excluding buildings of Class 6, 7, 8 or 9.
- Class 6:** a shop or other building for the sale of goods by retail or the supply of services direct to the public, including: a cafe, restaurant, bar, a hairdresser's or barber's shop, public laundry, market or sale room, showroom, or service station.
- Class 7a:** a car park.
- Class 7b:** a building for storage, or display of goods or produce for sale by wholesale.
- Class 8:** a laboratory, or a building in which a handicraft or process for the production, assembling, altering, repairing, packing, finishing, or cleaning of goods or produce is carried on for trade, sale, or gain.
- Class 9a:** a public health-care building; including those parts of the building set aside as a laboratory; or
- Class 9b:** a public assembly building, including a trade workshop, laboratory or the like in a primary or secondary school, but excluding any other parts of the building that are of another Class; or
- Class 9c:** a public aged care building.
- Class 10a:** a non-habitable building being a private garage, carport, shed, or the like; or
- Class 10b:** a non-habitable structure being a fence, mast, antenna, retaining or free-standing wall, swimming pool, or the like.

Source: BCA 2004.

1.3 Previous reviews

Building regulation matters have been the subject of a number of reviews over the past 15 years. In 1989, in response to a Special Premiers' Conference, the Building Regulation Review Taskforce (BRRT) was established to 'review technical regulations, codes, standards and other requirements affecting the construction and operation of buildings, including residential dwellings, with the objective of streamlining such requirements and lowering the overall costs of building' (BRRT 1991, p. vi). The Taskforce's report highlighted problems within the building industry, including marginal profitability, an inability to compete with foreign competitors, reduced efficiency and competitiveness in the delivery of major projects, and a high cost structure for the infrastructure used by all industries (BRRT 1991, p. 14). Pointing to regulation, it noted:

The existing regulatory system, taken as a whole, greatly inhibits the ability of the industry to efficiently and effectively deliver the products required by industry and consumers. (BRRT 1991, p. 15)

In setting the agenda for reform, the Taskforce stated 'it is essential to overcome the regulatory differences that needlessly inhibit building and construction activity and impose cost penalties on all States and Territories' (BRRT 1991, p. 17). It considered a national approach would bring greater scale, increased innovation and efficiency, and a greater level of transferability of skills and expertise to the building industry (BRRT 1991, pp. 26–27). In this context, the Taskforce recommended the formation of a body responsible for the national management of building regulation. As well, the Taskforce recommended a national legislative framework, reform of the technical basis of building regulation to include performance-based regulations, and a simplified system for housing (BRRT 2001, pp. 4–5).

More recently, reviews have focused on the activities of the ABCB, as the body charged with progressing national reform initiatives. In 1999, a technical review of the ABCB was conducted by three overseas experts. The review team looked at the performance of the ABCB in meeting the objectives and outputs of its work program. It also reviewed whether the ABCB's functions were appropriate in the context of the IGA and sought feedback from stakeholders on past and future reforms. The review concluded that the ABCB was providing a significant return on investment to the governments involved (Meacham et al 1999, p. i). It also identified opportunities where further progress could be made, including the structure and presentation of the Code, consistency in the administration of the Code, and further funding of research (Meacham et al 1999, pp. ii–iii).

In 2000, in accordance with a requirement of the IGA, a further assessment (the Laver Review) was conducted. (The IGA required a review of the operation of the ABCB and the administration of the IGA to be held within five years of its commencement.) The Review concluded that the ABCB was ‘performing a valuable role in developing nationally consistent performance based codes and its work should continue’ (Laver, Butterfield and Huxley 2000, p. 1). The review made 17 recommendations, including some change in focus in order to expand the use of the BCA and extend its coverage to emerging issues such as energy efficiency. Some administrative changes were also suggested. The joint Commonwealth, State and Territory Ministerial response to the Laver Review supported the major policy priorities and proposed action be taken in a number of areas, including development of a model administrative framework, redesign of the product certification scheme, development of a national plumbing code and the development of mandatory energy-efficiency provisions (sub. 4, p. 9).

The Laver Review also drew on an impact assessment report by KPMG, which used a case study approach to look at the impacts of five major initiatives progressed by the ABCB — the performance-based BCA96, the economic evaluation system for building regulatory proposals, private certification, liability reform and national product certification. The assessment concluded that the ABCB’s achievements had received wide approval and that the body was important for national coordination. It was suggested that further work was needed in reducing State and Territory exceptions to the Code, formalising maintenance requirements and responsibilities, moving closer to a national administration system, encouraging education of building professionals and reviewing the risk and liability landscape to ensure the regulatory framework was appropriate (KPMG 2000, pp. 5–6).

1.4 Problems and issues

The key issues and/or problems that have been identified during this study in relation to reform of building regulation are addressed in the following chapters. These include:

Consistency

- Despite the substantial progress made towards national consistency of building regulation, significant variations across jurisdictions remain. These inconsistencies generate inefficiencies, including unnecessary administration and compliance costs.

-
- Many mandatory, sometimes inconsistent or overlapping, requirements outside the Code, made by all levels of government, are impacting on the construction of buildings. Particular concerns relate to:
 - the use by Local Governments of their planning approvals role to move into regulatory areas that traditionally come within the scope of the BCA; and
 - fire solutions that satisfy BCA requirements (which have the objective of protecting life and adjoining properties) that can fail to meet the requirements of fire authorities (which are required under their governing legislation to protect property more broadly) and the views of insurers.
 - There appear to be many recent examples (particularly in relation to environmental issues) of jurisdictions acting unilaterally and introducing their own building requirements covering matters that could be better addressed on a nationally consistent basis. Delays in reaching agreement and implementing national reforms through the BCA have contributed in part to this trend.

Coverage of the Code

- There have been calls for the coverage of the Code to be expanded by incorporating certain existing mandatory requirements currently outside the Code (for example, requirements relating to plumbing, electrical and OH&S).
- Also, a number of interested parties consider that sustainability objectives need to be explicitly incorporated into the BCA.

Performance requirements

- The performance requirements in the Code currently only broadly outline what is necessary and do not give readily measurable or verifiable requirements. This has led to some confusion about what is required to meet the performance requirements.

Access and awareness

- Access, awareness and usage of the Code should be higher. There are complaints that:
 - the Code is not user friendly;
 - the cost of acquiring the Code is too high and it should be provided free of charge; and
 - the Board's education and training initiatives are not adequately targeting certain user groups, particularly smaller builders, tradespeople and consumers.

Regulatory system more broadly

- There have been ongoing concerns about poor building outcomes due to non-compliance with the Code and the operation of different administrative systems across jurisdictions. Particular problems include:
 - poor qualification and skill levels of some building practitioners, especially certifiers;
 - a lack of transparency and consistency in dealing with the approval of building solutions alternative to the ‘deemed-to-satisfy’ examples;
 - potential conflicts of interest for certifiers;
 - inconsistent administration of maintenance requirements; and
 - difficulties in dispute resolution.

Process and governance issues

- Notwithstanding that the Board’s processes for developing and amending the Code generally have a high degree of transparency (characterised by wide consultation and relatively rigorous impact analysis), concerns have been raised, including:
 - Regulatory Impact Statements not being prepared early enough, particularly in relation to standards referenced in the Code; and
 - partly as a consequence of this, there are examples of referenced standards being set at inappropriate levels and/or not adequately reflecting international standards.
- Because of the considerable focus in recent years on issues such as access for people with disabilities and energy efficiency, some consider that the Board has given insufficient attention to maintenance and updating of the Code.
- Particular issues relating to institutional arrangements include:
 - the independence of the ABCB office from the Australian Government;
 - concerns about the composition of the Board and the process for appointing members;
 - a need for a stronger commitment by jurisdictions to uniformity in national building regulation; and
 - the possible benefits of a formal role for a Ministerial Council.

1.5 Structure of the report

The remainder of the report is structured as follows:

- Chapter 2 describes the legal framework and government structures for the regulation of building. It also describes the role and structure of the ABCB and the main regulatory instrument — the BCA;
- Chapter 3 sets out the Commission’s criteria for assessing the effectiveness of the ABCB;
- Chapter 4 assesses the impact of reforms to building regulation on the productivity and performance of the industry;
- Chapter 5 assesses the BCA, the appropriateness of objectives pursued through the BCA and the extent to which the ABCB has achieved these objectives;
- Chapter 6 considers the incorporation into the BCA of non-BCA mandatory requirements impacting on building, expanding the coverage of the Code (including the desirability of including new areas such as sustainability into the Code), and Local Government requirements on building;
- Chapter 7 focuses on the supporting regulatory systems and assesses their effectiveness in ensuring compliance with building regulation;
- Chapter 8 discusses code-making processes of the ABCB and issues relating to the Code’s accessibility and use;
- Chapter 9 assesses other activities of the ABCB, including research, education and international liaison;
- Chapter 10 considers governance issues, with a view to identifying ways to increase the effectiveness of delivering the reform agenda; and
- Chapter 11 concludes with an overall assessment of the ABCB’s performance and the proposal of a revised IGA to take the agenda forward.

2 Legal framework, the ABCB and the BCA

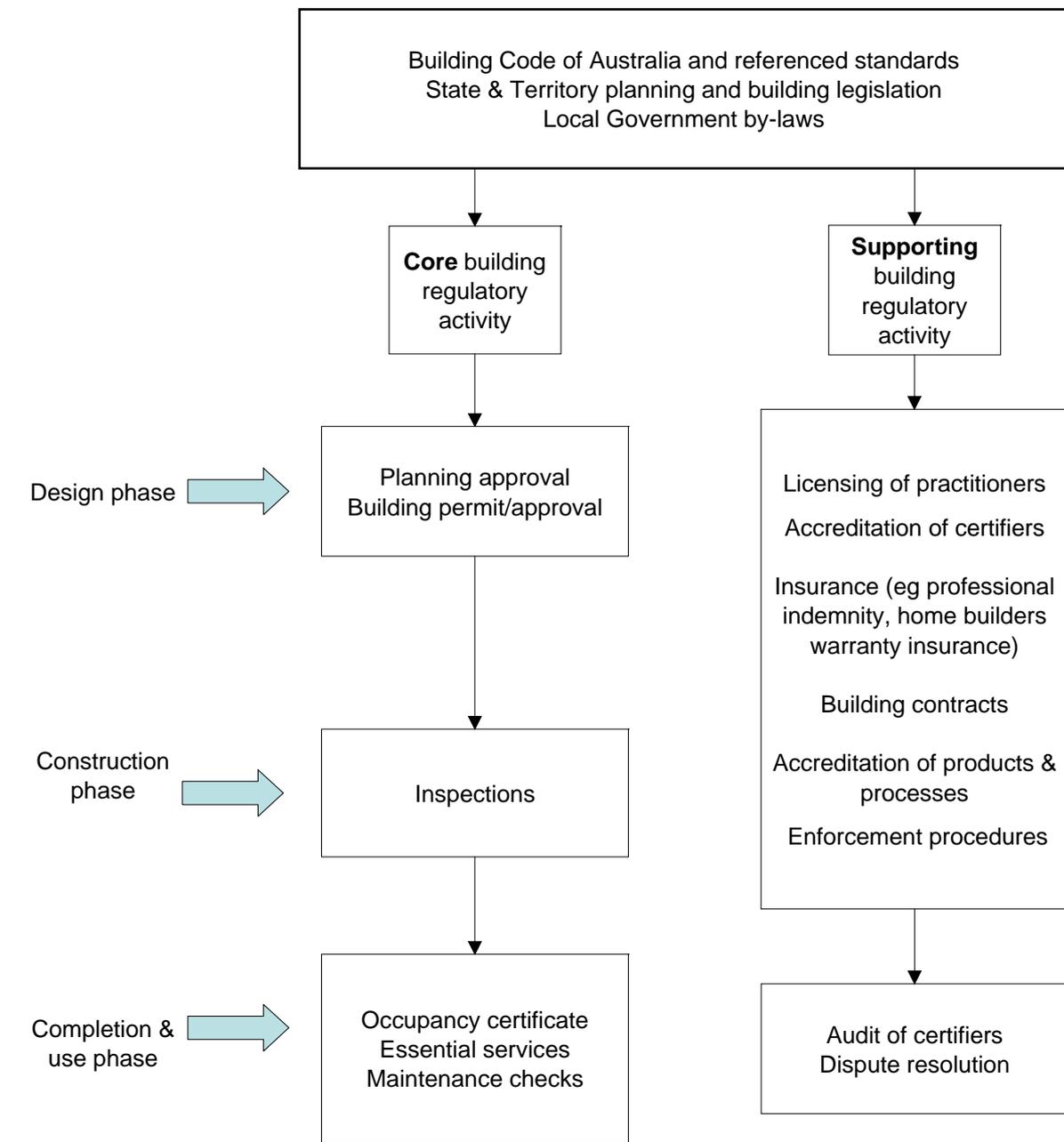
This chapter describes the legal and jurisdictional framework for building regulation in Australia, the structure of the ABCB and the composition of the BCA. Section 2.1 outlines the role of regulation in the building process. Sections 2.2, 2.3 and 2.4 examine the roles of the State and Territory, Local and Australian Governments respectively. Section 2.5 examines the ABCB, while section 2.6 looks at the BCA.

2.1 Regulation of the building process

Regulation specifically relating to the building process is embodied in three main instruments: the BCA; other State and Territory legislation and regulations; and local council by-laws. A number of players contribute to these regulations, both government policy makers and private bodies such as Standards Australia International. The implementation of these regulations is through a variety of entities, both private and public, and at various levels of government.

As shown in figure 2.1, the phases of the building process — from the choice of building site and design of the building through to the completion, use and even demolition of the building — are regulated in Australia. For each phase, the regulatory activities can be thought of as ‘core’ or ‘supporting’. **Core** regulatory activities refer to those steps necessary for a building to comply with regulations at each stage of the project – these primarily include approvals and inspections. **Supporting** regulatory activities are those making core activities more efficient or ensuring that they are conducted properly, and regulating other participants in the building process. The description below necessarily generalises the practices and requirements which vary somewhat across jurisdictions.

Figure 2.1 Regulation of the building process



Initiation and design phase

As a first step, the initial design ideas for the proposed building may have to comply with several regulations or standards. Issues in the design of a building can include health, safety, amenity, energy efficiency, sustainability, access for people with disabilities, fire safety concerns and characteristics of the building such as

appearance or height of ceilings. These design considerations are regulated by the core requirements of planning and building approvals.

Planning (or development) approval will usually be required where a new building or structure is erected, the use of a building is changed, or the boundaries or other property rights attaching to the land in question are altered. If planning approval is required, it must usually be granted before building approval can be issued.

The central focus of planning approval is the use of the land as it impacts on the surrounding community. In addition to zoning requirements, this includes other issues external to the construction of the building, such as considerations relating to the environment (including water use and waste disposal), heritage, parking, access, effects on existing property rights and design considerations (including the shading provided and distances from surrounding property and public areas such as roads and footpaths).

Local councils commonly administer their own planning systems, but in some cases planning can be governed by regional or State or Territory-wide policies. As some areas of planning approval can overlap with areas affecting building approvals, this can lead to local council by-laws effectively contradicting the BCA.

In general, building approval (a building permit), necessary for all but the most minor building work, relates to matters specific to the proposed building – namely, the safety (particularly structural integrity) of the building and the processes involved. It also involves checking initial compliance with any requirements stemming from the planning approval process. Building approval is provided by private certifiers and by local council certifiers in most jurisdictions.¹ The regulatory requirements for building approval are usually made at State and Territory Government level.

In addition to planning and building approvals, regulation impacts on other aspects of the initiation phase of the building process. As mentioned in chapter 1, the construction of a building involves the work of several professions and trades. These building practitioners, including certifiers, are often licensed in an effort to ensure a minimum standard of practice in the jurisdiction (by requiring qualifications, audits and insurance) and to signal certain information to the users of building services. Insurance requirements have generally been established to ensure that, in the case of a dispute or non-completion of a building contract, the financial interests of both parties are protected.

¹ Both the Australian Capital Territory and the Northern Territory use only private certifiers.

Another consideration before building is commenced is the building contract. This governs the relationship between the builder and the owner of the proposed building, and contains some important controls on the way in which the building process takes place. Building contracts are the key means by which consumers can specify levels of quality and workmanship, over and above the minimum standards contained in the BCA. These contracts are regulated in some jurisdictions, usually on a consumer protection basis.

Once planning and building approvals have been obtained and the relevant building practitioners have been engaged, construction can begin.

Construction phase

During the actual construction process, some jurisdictions require regular inspections of the building work. As with the granting of building approval, these inspections are conducted by a council certifier, or in some cases, a private certifier. The inspections are primarily focused on the structural integrity and general safety of the building. They may also look at other aspects of the building, such as energy efficiency, but importantly inspections are not aimed directly at ensuring any particular level of quality or workmanship. The role of these inspections is to make sure that the whole building process (and various steps along the way such as the foundations, frame and completed building) is conducted according to the building approval requirements, including those of the BCA, but not to assess the building against any building contract. It is up to the owner to regularly check for compliance with the contract, either directly or through the use of hired building consultants.

In order to assist the inspection process, jurisdictions provide accreditation for products, methods and systems used in building work. Essentially, this accreditation serves as proof that the product meets the requirements of the BCA. This means that the suitability of the product does not need be tested each time it is used in a building process, saving time for the certifier and encouraging the use of quality products in buildings. Currently, this accreditation is provided at Australian, State and Territory levels. Some products are accredited nationwide, while some are only accredited in particular jurisdictions. (See chapter 9.)

To further assist the certifier, in some instances, a certificate issued by, for example, a structural engineer, may be used to ‘tick off’ compliance with an aspect of the regulation. This can also involve self certification, where the contractor can certify that their own work is compliant.

If a building fails an inspection, enforcement procedures are available to ensure that the building is brought up to compliance. In some cases, the certifier (either private or council) can issue an order requiring the abandonment of the project, or that particular work be done to rectify the problem. Often local councils have the power to levy financial penalties for the contravention of building regulations, including the failure to rectify non-compliant work. Other enforcement measures available may include taking the offending practitioner before a registration board, to a tribunal or to a court (all of which are usually at a State or Territory, not Local Government, level).

Completion and use phase

Before a building can be used, an occupancy certificate (or a certificate of final inspection in the case of renovations) is often needed. This certifies that, from a health and safety perspective, the building can be occupied. As such, an occupancy certificate may be granted, even though aspects of the project relating to the appearance and enjoyment of the building may not be completed. The occupancy certification may also signal compliance with the original building and planning approvals.

Once the building has been occupied, it is still subject to certain regulatory requirements. In the case of commercial buildings, essential services must be maintained. This relates mostly to emergency features of the building, such as exits, fire stairs, fire extinguishers, fire alarms and sprinklers. Typically, local councils enforce on-going building safety requirements through checks and essential services reports (completed by the building owner). In addition to general public liability for injury, landlords have a duty of care to provide safe premises for their tenants and may be subject to common law actions in relation to negligence.

While disputes can arise at any stage during the building process, problems with a building will most often become apparent after the building is completed and is being used. Dispute resolution processes vary by jurisdiction and can involve:

- complaints or appeals to local council
- State and Territory Government departments
- professional registration boards
- building-specific or multi-purpose tribunals (such as the Administrative Appeals Tribunal)
- other statutory bodies
- a range of specialist or common law courts

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- independent arbitration.

Each of these varies in power, formality and expense.

2.2 Role of State and Territory Governments

Constitutionally, the power to regulate the use of land resides with the States and Territories. As such, State and Territory Governments are responsible for the statutory framework for land use, planning, development and building regulation.

Although they are the source of legal power in building regulation, State Governments often delegate the power for local governments to apply, or enforce, rules relating to building regulation.

Rule making

Although the BCA is created and maintained at a national level by the ABCB, for it to have any legal force as building regulation it must be adopted by each State and Territory jurisdiction. The majority of jurisdictions adopt the BCA ‘as amended from time to time’, meaning that any changes to the BCA made by the ABCB or the jurisdiction itself are automatically included in their legislation. By adopting the BCA ‘as amended from time to time’, jurisdictions can ensure that they have in force the most up-to-date Code. This means that each jurisdiction adopts BCA amendments at the same time, helping to ensure that the Code represents a consistent national standard. Nevertheless, they still have the right to amend or vary the Code as they see fit. South Australia refers to a specific version of the BCA in their legislation, and dictates a method of changing that version — by notification in the Gazette. Each jurisdiction can adopt the BCA to any extent they choose, in total or in part with their own variations. All States and Territories maintain formal appendices to the BCA listing jurisdictional variations and additions to the Code’s mandatory requirements.

In addition to their own variations relating directly to building, States and Territories also have the power to make other rules that can impact on the building process, for example, rules relating to energy efficiency and fire safety (discussed further in chapter 6). These rules can be contained in legislation that covers areas other than building, such as fire, health or the environment.

Administration

As they set up the legislative framework for building regulation, the States and Territories are also primarily responsible for the administration and enforcement of the regulations. While some powers (for example, building and planning approval) are commonly delegated to local councils, different jurisdictions retain varying levels of control over the administrative process. Despite the existence of model legislation governing the administration of building regulation, only a few jurisdictions (Victoria, Tasmania and the Northern Territory) have adopted it to any significant degree, most preferring to retain their own administrative frameworks (see chapter 7 and appendix G).

State and Territory Governments usually administer several of the supporting regulatory activities in the building process, such as the licensing of practitioners, the regulation of building contracts and insurance, accreditation of products and systems and dispute resolution. As mentioned above, there is a variety of dispute resolution options available across the jurisdictions.

2.3 Role of Local Governments

Local Governments are established under State legislation and their structures, powers and functions are determined by that legislation (there is no Local Government tier in the two Territories). For all jurisdictions the relevant legislation creating and regulating Local Government has been reviewed in the past 10 to 15 years, and significantly amended or replaced with new legislation that gives local councils greater general powers. Generally, these changes allow Local Governments to provide a range of services or to undertake functions to meet the needs of their local communities. As Local Governments also have a measure of choice over the range of non-statutory functions they get involved in, as well as the manner in which they interpret their statutory functions, there are differences in the activities of local councils both within and across States and Territories.

Local Governments impact on building regulation primarily through their administration of planning schemes. Local Governments exercise their statutory planning powers in two ways:

- through the creation of land-use plans and development controls; and
- through the process of assessing applications for land use and development by granting approval, granting approval with conditions, or refusing an application, and through the enforcement of planning scheme provisions.

Local Governments also play a role in enforcing building regulations. Despite the introduction of private certification, councils in most jurisdictions are still heavily involved in the certification process that governs building approvals. Additionally, local councils enforce breaches of building regulation through work orders or fines.

Thus, the role of Local Government in building regulation is primarily in the administration and enforcement of the regulations. However, depending on the level of control retained by the State that governs them, some Local Governments can make their own building or planning by-laws applicable only within the particular Local Government area. As noted above, given the overlap between planning and building regulation, these by-laws can effectively vary or add to requirements contained in the BCA. An example of this is local council requirements to use a particular form of energy or water-saving device, such as a dual flushing toilet or water-saving shower rose. This issue is discussed in chapter 6.

2.4 Role of the Australian Government

As mentioned above, under the Australian Constitution, responsibility for building rests with the States and Territories. However, increased interstate cooperation has led to the Australian Government also taking on a coordination and reform role in building regulation.

History of national building regulation

In 1965, an Interstate Standing Committee on Uniform Building Regulations was established with the aim of creating greater consistency in building regulation (ABCB 2003a, p. 36). In the early 1970s, the Committee released the Australian Model Uniform Building Code (AMUBC), which contained proposals for both technical and administrative building matters.

However, further work was needed to produce a more nationally acceptable and harmonised set of rules. After a review in 1979, the Interstate Committee was restructured to form the Australian Uniform Building Regulations Coordinating Council (AUBRCC). In line with the new focus on consistency in technical building regulations, the Council removed all administrative provisions from the original model code and renamed the resulting technical document the BCA. Editions of the BCA were released in 1988 and 1990, with increasing use of performance regulations. In 1990, in an effort to encourage national consistency, the Council also commissioned a project to develop model legislation for the administration of building regulations. However, to date adoption of this legislation has proven to be limited and piecemeal.

Meanwhile, following general concerns about the effectiveness of Australia's regulatory systems, a Special Premiers Conference in 1989 placed planning and building approval reform on the national microeconomic reform agenda. As a result, the Building Regulation Review Taskforce (BRRT) was established, with terms of reference to 'examine the scope for significant reforms of technical regulation of building' (BRRT 1991, p. 1). It recommended the establishment of an Australian Building Regulation Corporation, to replace the AUBRCC, which would be responsible for key reforms.

Based on the recommendations of the Taskforce, the ABCB was formed in 1994 via an Inter Government Agreement (the IGA). In the IGA, the State, Territory and Australian Governments agreed to the formation of the ABCB as a representative Board to develop a nationally consistent regulatory framework and to maintain the BCA as a nationally consistent source of technical regulation.

Present role of the Australian Government

The Australian Government's role in building regulation is one of coordination and reform through its representation on and part funding of the ABCB.

The Australian Government also plays an indirect role through its actions in broader social, environmental and economic policy areas. Examples of where these actions overlap with building regulations include regulation aimed at access for people with disabilities and accreditation standards for aged care facilities.

Another area where the Australian Government can indirectly influence building regulation is through the processes and competition payments associated with reviews of State and Territory legislation under the National Competition Policy (NCP) Agreement.² These reviews can encompass not only building legislation, but also legislation governing building practitioners, such as architects or surveyors.

For areas of land over which it has constitutional power, the Australian Government can create and implement its own building-approval process. Examples of this include airports³ and land under the control of the defence forces⁴.

² The Productivity Commission is currently conducting a Review of National Competition Policy Arrangements. Details of this review can be found at: <http://www.pc.gov.au/inquiry/ncp/index.html>.

³ See *Airport Act 1996 (Cwlth)*.

⁴ See *Defence (Areas Control) Regulations 1989 (Cwlth)*.

2.5 ABCB

The ABCB was established through the IGA signed in 1994 by the Australian Government and the State and Territory Ministers responsible for building regulation reform. Standing Orders were established in conjunction with the IGA to provide for administration of the Board and implementation of the Board's objectives. The Agreement was amended in 2001 following an independent review. The IGA, as amended, is in appendix B.

The ABCB's mission is 'to provide for efficiency and cost effectiveness in meeting community expectations for health, safety and amenity in the design, construction and use of buildings through the creation of nationally consistent building codes, standards, regulatory building requirements and regulatory systems'.

The primary means by which the ABCB achieves its mission is through the development, upgrading and maintenance of the BCA. The Board's processes for developing code reforms are based on extensive consultation and assessment of economic and social impacts (see chapter 8).

The Board has no legislated regulatory power. The technical requirements of the Code become mandatory legal requirements when they are referenced in State and Territory Building legislation.

The Board pursues a range of activities in support of its Code maintenance and development functions, including education, training, research and international cooperation and collaboration. The ABCB has also produced a number of non-regulatory guideline documents. These other activities are discussed in chapter 9.

In addition to influencing regulation through changes to the Code, the Board seeks more generally, through these other activities, to promote and be a catalyst for reform of building regulation. Indeed, the ABCB Chairman (sub. 4, p. 6) considers that the mission statement 'does not adequately reflect the strong regulatory reform agenda of the ABCB'.

Structure and membership

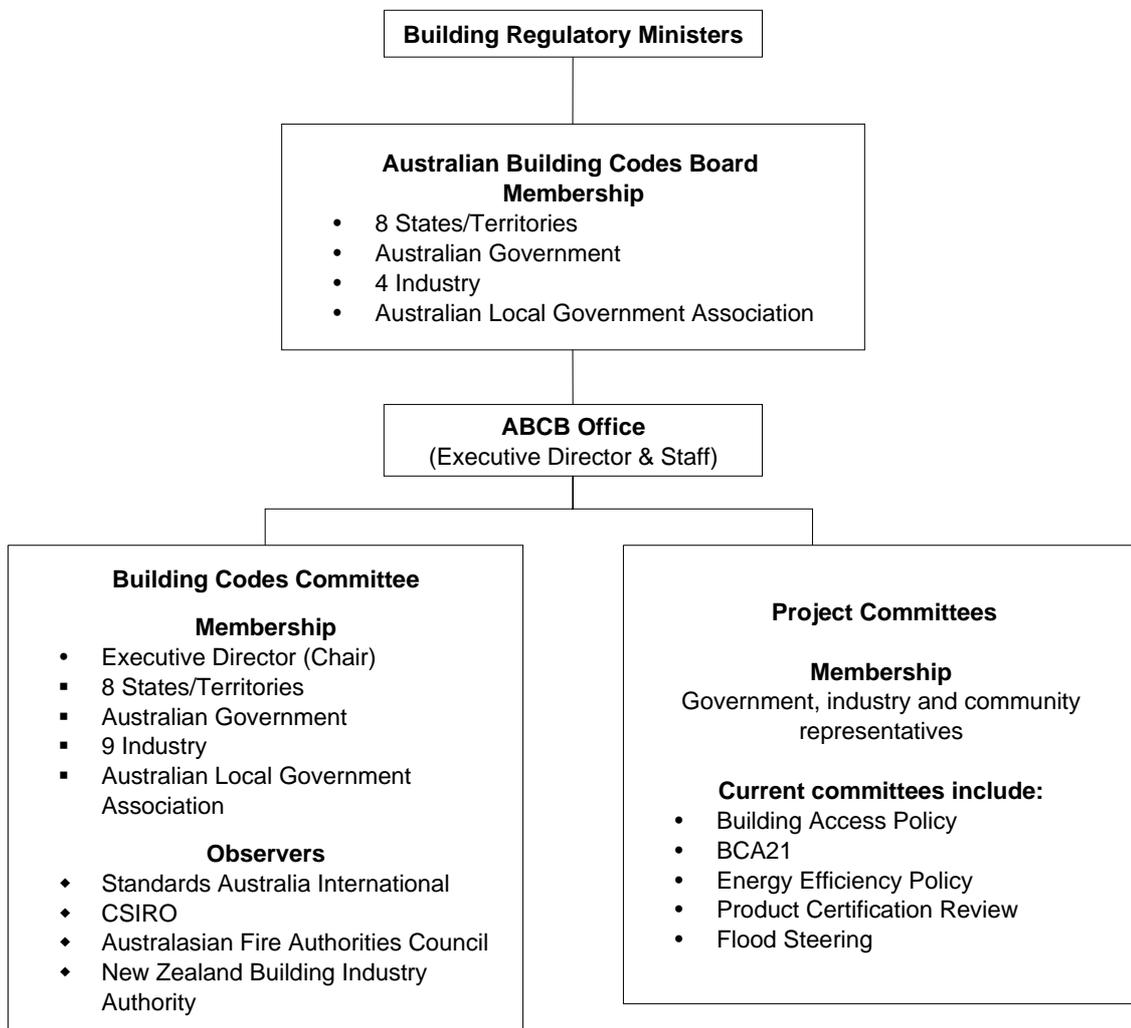
Figure 2.2 outlines the structure and composition of the ABCB and supporting committees.

Board membership comprises the Australian, State and Territory Governments' chief executives responsible for building regulatory matters, a Local Government representative (a nominee of the Australian Local Government Association) and four

industry representatives. Board members are appointed by Ministers. The current membership of the ABCB is listed in appendix C.

The Chairman is appointed by the Australian Government Minister from amongst the Board members, following consultation with State and Territory colleagues. The present Chairman is an industry representative, but unlike the other industry members (who are appointed as a result of a nomination by the Australian Construction Industry Forum (ACIF)), he was selected by the Minister, also in consultation with States and Territories.

Figure 2.2 **ABCB structure**



Source: Based on ABCB 2003a, p. 41.

The Standing Orders require that the Board meets at least once in each calendar year. Each member of the Board is entitled to one vote. While the Standing Orders for the Board state that decisions shall be by a simple voting majority, the ABCB Chairman points out that in practice:

... there has never been voting at the Board level but the provision needs to be retained to avoid one or two members frustrating the will of a large majority. (sub. 4, p. 48)

The Board is supported by an Executive Director and staff that are employed by the Australian Public Service and located within the Australian Government Department of Industry, Tourism and Resources (ITR). The Office comprises around 35 professional, technical and administrative staff, who are responsible for coordinating, managing and implementing the work program under the direction of the Board. The Executive Director attends meetings of the Board.

The Building Codes Committee (BCC) is the peak technical body with responsibility for advice to the Board on reforming, maintaining and upgrading the Code and its standards. The ABCB Executive Director chairs the BCC. Other members of the Committee include representatives from the Australian, State and Territory Governments, the Australian Local Government Association and industry. In addition, representatives from Standards Australia International (SAI), CSIRO, the Australasian Fire Authorities Council (AFAC) and the New Zealand Building Industry Authority have observer status.

As with decisions of the Board, the BCC standing orders provide for simple majority voting. While this mechanism is available to resolve irreconcilable positions, in practice, most issues are resolved through consensus (sub. 36, p. 14). Further, standing orders require that decisions cannot be taken by the BCC that lead to a State or Territory variation to the BCA.

The BCC meets at least twice a year to consider and authorise amendments to the BCA and to agree on other matters of a technical nature. In addition, separate working groups of State and Territory BCC members meet, as required, to assist the ABCB in developing material for the BCC.

In addition, various project committees provide advice to the ABCB on its operations. Current committees include:⁵

- BCA21 Committee (provides technical support and advice on the future scope and format for the BCA)
- Building Access Policy Committee
- Energy Efficiency Steering Committee

⁵ ABCB website (accessed 21 October 2004) and (ABCB, pers. comm. 15 October 2004).

-
- Flood Steering Committee
 - Product Certification Review Working Group.⁶

The ABCB has recently trialled the establishment of a Technical Validation Panel (TVP). The purpose of the TVP is to undertake reviews of detailed technical matters, freeing up BCC resources to concentrate more on priority regulatory policy and administrative issues (see chapter 10).

The ABCB reports separately to the Minister responsible for building regulation matters in each jurisdiction (and not to a Ministerial Council).⁷ In practice, the Board is generally the final decision maker on proposals for changes to the Code. However, the IGA does not create legally binding or enforceable arrangements for the parties. As noted above, while most States and Territories automatically adopt changes to the Code ‘as amended’, all maintain the right to implement variations and additions to the Code.

2.6 BCA

Since the current BCA was first developed in 1996, it has been progressively refined and amended. While all States and Territories have adopted the BCA, most have variations and additions⁸ to the Code.

Scope of the BCA

The Code articulates (minimum) requirements for building practices for most building types and for a variety of aspects of building performance.

The BCA covers all commercial and domestic buildings, but not ‘non-building’ or engineering constructions (such as roads and bridges). The BCA identifies 10 classes of buildings, each covering a particular type of building (see box 1.2). The Code has been divided into two volumes, each covering particular types of buildings.

⁶ In addition, the ABCB also works with an industry liaison committee, an informal group of industry representatives who meet with the ABCB on a regular basis to discuss various issues related to the work of the ABCB.

⁷ When the IGA was signed in 1994 the relevant ministers met in a national council known as the Planning, Housing and Local Government Ministerial Council.

⁸ Variations to the code refer to instances where the jurisdictions have derogated from the BCA by either removing provisions or by replacing the provision of the BCA with jurisdiction-specific regulations. Additions to the BCA refer to instances where the jurisdictions have included additional regulations (beyond the coverage of the BCA) in their building code.

In essence, volume one of the Code covers commercial buildings (such as factories, office blocks and warehouses) and multi-unit residential buildings, while volume two covers domestic housing.

Volume one of the BCA covers:

- all class 2 to 9 buildings;
- access requirements for people with disabilities in class 10 buildings; and
- certain class 10 structures.

Volume two covers:

- class 1 and 10 (other than access requirements for people with disabilities in class 10 buildings); and
- certain class 10 structures.⁹

The style and structure of each volume is different, reflecting the different users at which they are pitched and the different classes of buildings they cover. Volume one is aimed at firms working on larger scale constructions and contains only the technical requirements of the Code. A separate companion manual, ‘Guide to the BCA’, provides ‘clarification, illustrations, or examples’ to aid interpretation of volume one. Volume two of the Code — aimed at firms and individuals engaged in the design and construction of houses — includes, within the Code, interpretive material and additional information, such as diagrams, examples and explanations.

As outlined in appendix D, the BCA covers several aspects of *building performance* including: structural provisions, fire resistance, access and egress, health and amenity (including room sizes, light, sound transmission and ventilation), services and equipment (including safety equipment and lifts) and energy efficiency.

The coverage of volumes one and two are different in several areas. In some cases, this reflects the different nature of the buildings under reference, for example, volume one (commercial buildings) has regulations covering lift installations, emergency lighting and special use buildings, which are not relevant for housing (volume two). Nevertheless, in some other areas the coverage appears to differ for other reasons. For instance, energy-efficiency measures have been included in

⁹ Class 10 structures are essentially out-buildings such as garages, sheds, walls, swimming pools, fences etc. Generally, most matters relating to class 10 buildings are contained in volume two. However, requirements for some class 10 buildings (such as access requirements for public toilets) are found in volume 1. Similarly, swimming pools would usually be attached to class 1 buildings (houses), but can also be constructed in commercial buildings. Thus, requirements for swimming pools are contained in both volumes one and two.

volume two of the Code, but are still in the process of being included in volume one.

In addition to differences between the two volumes, a number of the requirements of the Code only apply to certain classes of buildings (within the one volume). This is usually because the area of building performance in question is only applicable to certain classes of buildings. For example, regulations relating to sound insulation in volume one of the BCA¹⁰ only apply to class 2, 3 and 9c buildings (certain residential buildings and aged care homes) and not other classes of commercial buildings such as factories or office buildings.

While different regulations for different building classes are necessary to target the Code properly, they do provide incentives for designers or owners to have their building classified to a particular class. For example, the developer of a hotel (class 3) may wish to have the building initially classed as class 2 (sole occupancy units) if the building requirements are lower for a class 2 building. This mis-classification of buildings, apart from inducing distortions in building decisions, may lead to unsafe outcomes if buildings do not meet the appropriate regulations for their ultimate use (Hook, B. Queensland Fire and Rescue Service, pers. comm., 11 May 2004).

BCA structure

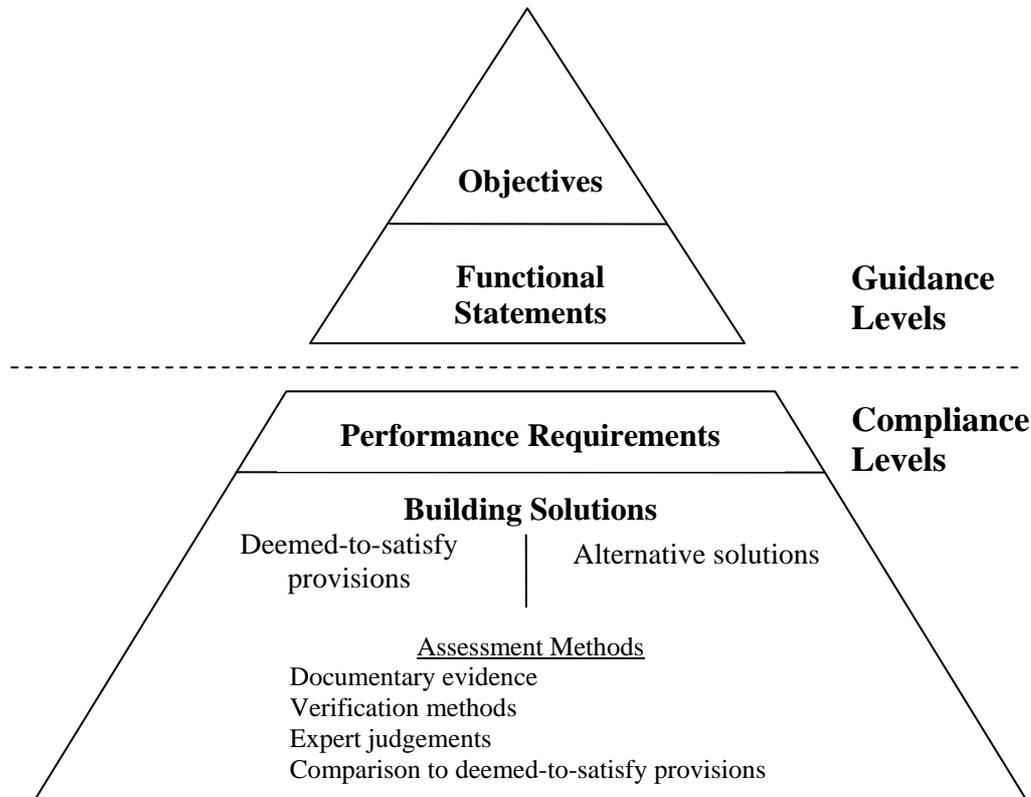
The structure of the BCA is outlined in figure 2.3. There are four broad levels of guidance and obligations contained in the Code.

At the broadest level, *objectives* outline what the ABCB has judged to be the ‘community expectation’ in relation to a particular area of building performance. For example, in relation to the structure of a building, the Code has the objective of safeguarding people and other property from injury and loss of amenity from a structural failure or malfunction.

At the next level, the *functional statement* describes ‘how it is proposed that the building will be designed and constructed to meet those community expectations’ (Guide to the BCA 2004, p. A0.8). In relation to structural provisions, for example, the functional statement states that a ‘building or structure is to withstand the combinations of loads and other actions to which it may be reasonably subjected’ (BCA 2004, vol. 1, p. BP1.1). Both the objective level and functional statements are provided for information only and are not formal requirements for a building to meet the BCA.

¹⁰ Volume two of the code has separate sound insulation requirements.

Figure 2.3 **BCA Structure**



Source: BCA 2004, vol. 1, p. A0.4.

The third level of detail in the BCA are the *performance requirements*. The performance requirements form the backbone of the BCA and enunciate what level of performance is required for a building to meet the BCA. The purpose of these requirements is to meet the functional statements and objectives of the Code and outline the **minimum** standard that a building must meet. The performance requirement does not preclude builders or designers from achieving a higher standard if they (or the consumer) desire.

Continuing the previous example, the performance requirement for structural stability states that the building must, by resisting the actions to which it may reasonably be subjected:

- remain stable and not collapse;
- prevent progressive collapse;
- minimise local damage and loss of amenity through excessive deformation, vibration or degradation; and

-
- avoid causing damage to other properties (BCA 2004, vol. 1, p. BP1.1).¹¹

Performance-based regulations and requirements are discussed in more detail in chapter 5.

The most detailed level in the BCA hierarchy are the *building solutions*. The BCA offers a dual approach to complying with the performance requirements. Buildings can either be designed using ‘deemed-to-satisfy’ solutions or an alternative solution — provided the solution can be demonstrated to meet the performance criteria. The ABCB chairman noted that the majority of houses are designed using the deemed-to-satisfy solutions, although commercial buildings are often built using alternative solutions (sub. 4, p. 11). Similarly, responses to a survey of building surveyors (see appendix F) indicated that the use of alternative solutions was very limited in the case of residential building (in the order of 2–5 per cent), but quite common for commercial buildings (between 70 and 80 per cent).¹²

Four primary assessment methods can be used to demonstrate that an alternative solution meets the performance requirements:

- the use of evidence showing that the use of a material, form of construction or design meets with the relevant performance criteria;¹³
- verification methods contained in the BCA¹⁴ or acceptable to the authority judging compliance with the BCA (that is, the certifier);
- comparison with the deemed-to-satisfy provisions; and
- expert judgment.

¹¹ In addition, the performance requirement lists a number of actions that are to be considered, including: dead loads; loads arising from occupancy and use; wind action; earthquake action; and ground movement. The section also has a requirement to determine the structural resistance of materials used in the building.

¹² While a large proportion of commercial buildings are designed using alternative solutions, it may not be the case that each building was designed solely using alternative solutions. Many of these buildings may have utilised alternative solutions for particular aspects of the building (such as egress requirements), but used deemed-to-satisfy solutions for other parts of the buildings (such as lift installations).

¹³ Evidence may include: a report issued by a registered testing authority; a current certificate of conformity or a certificate of accreditation; certification from a professional engineer or other appropriately qualified body; a certificate issued by a product certification body; and/or a current product listing data sheet and listing entry in the register of fire protection equipment (see <http://www.abcb.gov.au/index.cfm?fuseaction=DocumentView&DocumentID=86>).

¹⁴ Some performance requirements in the BCA have associated verification methods that provide details on how compliance with the performance requirement can be verified.

The deemed-to-satisfy solutions form the bulk of the BCA and offer prescriptive solutions that have been judged to comply with the performance requirement. The deemed-to-satisfy solutions offer a ‘recipe book’ approach that give detailed information on one method of constructing a building that will meet the BCA requirements.

In the BCA96, many of these deemed-to-satisfy solutions were adopted from the previous prescriptive code (Fire Protection Association, sub. 19, p. 5). In many cases, the deemed-to-satisfy solutions make use of standards to define construction methods and levels of performance of building products. The majority of these are Australian standards (largely developed by SAI), although other sources, such as the CSIRO and American Society for Testing and Materials, are used in some cases. The development of standards is discussed in chapter 8.

3 Assessment criteria

3.1 Background

The terms of reference request assessment of the past performance of reform of building regulation against a number of criteria:

- effectiveness in achieving objectives
- improving productivity of the industry
- maximising net benefits for the economy.

They also request an assessment of whether further reform should be undertaken after 2005 and the form that this should take, especially in terms of reform objectives. In addition, they raise the issue of the appropriate institutional arrangements to deliver future reform, including the role of the Australian Government.

As reform of building regulation is relevant to all levels of government, subsidiarity issues arise. The approach taken in this study is to apply the assessment criteria from the perspective of the wellbeing of Australians and Australia as a whole, while noting differences in the impacts on, and the preferences and interests of, jurisdictions.

A particularly challenging aspect of this study is to assess the different functions of the Building Code of Australia (BCA). The Code is, at one and the same time:

- a technical document providing information to building practitioners about what has been demonstrated by experts to work;
- a ‘regulatory’ document by which to specify and judge compliance;
- the mechanism by which national consistency is achieved; and
- a social document purporting to set society’s minimum acceptable standards for health, safety and amenity, with recent or expected extensions to other social objectives, including accessibility and sustainability.

3.2 Rationale for government intervention

Any intervention needs to have a sound rationale. Ultimately, government initiatives will be judged by whether they are addressing significant problems and pursuing worthwhile objectives and the extent to which these are met at least cost.

A first step for assessing the objectives of building regulation is to establish that there are problems of a nature that justify government intervention; and that the remedy is preferred to inaction. Many problems can be solved by individuals and communities operating in the market-place without resort to government regulation. At issue is whether the building sector faces problems that cannot be best solved by the industry or by those using building services. And, if this is the case, then what is the best form of government response?

Buildings and the services they provide are diverse and multi-faceted. A building, whether it is primarily for accommodation or for other uses, provides many services, comprises a range of materials, is constructed by practitioners with greatly varying skills and expertise, and is an area where numerous social objectives converge, many of which overlap and some of which conflict. All of these aspects potentially provide fertile ground for regulation.

Market imperfections

There are some broad characteristics of the building industry that may justify government involvement, namely:

- complex and asymmetric information;
- spillover benefits (or positive externalities) — such as those derived from research;
- spillover costs (or negative externalities) — such as those from construction noise, inadequate ventilation, poor aesthetics, poor drainage, fire and adverse environmental impacts; and
- as accommodation is an aspect of living standards, there is the objective of seeking to ensure certain minimum standards for all citizens in society.

First, with respect to informational problems, while consumers generally have an incentive to seek out goods and services with the price-quality combination they want, this is difficult where information is inadequate. This information gap is particularly large for purchasers of residential buildings, especially buyers of single residences, since many of them will be infrequent buyers and so do not build up experience of the market.

There are many aspects of a building that are hidden by the time a building is completed. For example, NATSPEC's submission to the Campbell Report stated that 'at the time of certification the installation works are generally concealed within the building fabric and not available for anything but the most cursory inspection' (2002, p. 3). Thus, with respect to buildings, suppliers have much more knowledge than the consumer, and even the certifier, about the likely standards of the final product and the trade-offs to be made between the various characteristics of a building.

Aspects of buildings which are subject to information gaps with potentially significant adverse impacts, include:

- structural soundness;
- effectiveness of the protection provided against fire;
- use and impacts of materials, such as asbestos, that could cause painful and life-shortening diseases; and
- ability to withstand the impacts of earthquakes or cyclones in areas prone to either.

The owner and/or the occupier of a building are not easily able to ensure that the building in fact meets the specifications they think they are paying for. Without addressing this information imbalance between building practitioners and prospective purchasers and occupiers, people may unwittingly contract for, buy or rent buildings that do not meet with the approved design and/or do not meet their needs. Sooner or later these defects may present risks to health or safety, disappoint in terms of quality of finish, and/or fail to meet expectations for sound proofing, thermal and waterproofing standards and other aspects of amenity. (In addition, there may be difficulties in pursuing the original builder.)

A particular aspect of information asymmetry relates to the circumstances where those making the decisions do not reap the rewards nor bear the costs. For example, 'those making the decision as to whether to upgrade the energy-efficiency standards of a new building may not be the occupiers of the completed building' (Clinch 2003, p. 6). Similarly, those deciding to save on building costs by increasing maintenance costs may not be the ones who bear the costs of maintenance. From an efficiency perspective, this is an issue because it is often not easy for owners and occupiers to determine what decisions have been made on their behalf and/or to assess their full impact on amenity and cost for the total life of a building.

Government intervention is not necessarily required to address knowledge imbalances. For example, individuals wishing to be assured of the quality of a building can hire people with appropriate professional qualifications and experience,

such as an architect or a building inspector, to act on their behalf to provide the level of expertise and quality control required to bridge the knowledge gap. Alternatively, they can research a builder's reputation before signing a contract, or they may be able to take out insurance against poor building outcomes. Where the insurance market is working well, insurance premiums can become a signal to consumers as to the reputation of a particular building practitioner. Contracts and appeals through the courts also provide for financial and legal, albeit possibly costly and uncertain, redress when consumers experience adverse outcomes.

However, as noted by the New Zealand Government, consumers may not use available mechanisms to address information asymmetry:

Consumers appear to display inconsistent behaviour in terms of their understanding or evaluation of risk in relation to the construction of dwellings. For example, very few consumers would drive without insurance. ... In contrast, relatively few consumers take out available insurance products to protect against poor building. (2004, p. 19)

This reflects the fact that building is a complex process, involving trade-offs between costs, skills, materials, building systems and processes which impact on the characteristics of the finished building. The full implications of these choices are often not clear to the ultimate owner. The Campbell report quotes a representative of the Owners Corporation Network, describing the problem for strata title developments:

... I agree with you that the buyer should be aware. The challenge we face at the moment is that most buyers are not aware of what they should be aware of ... (2002, p. 168)

The **second** characteristic, namely spillover benefits, refers to cases where people can access benefits without paying for them. Suppliers of these benefits cannot fully recoup their value in the market place and thus they tend to be under-supplied. Building research displays this characteristic. Without government or some other form of collective action, research into building techniques would tend to be too low, because of the difficulty in preventing other suppliers from copying new techniques without payment. (Even if effective ways could be found to prevent copying, this would be inefficient because it prevents others from making use of information that it would cost no extra to provide (non-rival consumption).) Another fact is the predominance of small businesses in the building industry, very few of which can afford to invest in in-house research. The costs of under-provision of research and development are likely to be high because building is an industry facing significant technical innovation.

The Australian Building Codes Board (ABCB), via Standards Australia International (SAI) and other funded research, attempts to address this incentive gap by supporting research, by providing research results collectively and by embodying

an agreed set of standards for buildings and building materials in the BCA. Alternative strategies might include subsidies to research and development (possibly funded by a levy on the industry) and providing patents.

With respect to the **third** characteristic, spillover costs, the process of construction and the finished product itself can have negative impacts on inhabitants of buildings and the surrounding community, through such things as excessive construction noise, inadequate ventilation or poor drainage. The Code does not address most ‘environmental’ impacts, on the grounds that impacts on others should be addressed via planning requirements. However, some negative externalities, such as those derived from energy consumption, have wider impact than the immediate community and have not traditionally been the domain of planning regulation.

Finally, there is the objective of seeking to ensure that disadvantaged members of the community, are guaranteed some minimum standard of accommodation and access to buildings. Currently, the Board is developing standards to ensure a level of access to public buildings for people with disabilities. One question is determining the best way to achieve this minimum standard of accommodation. Alternatives to the increased use of regulatory standards, include funding disadvantaged groups directly or subsidising buildings with specified characteristics.

In sum, the characteristics of the building sector (the knowledge gap between builder and buyer and the difficulties facing buyers due to the complexity of building decisions; difficulties in getting those who gain from research to pay for it; the potential for buildings to have adverse impacts on the surrounding community; and its contribution to achieving social objectives) mean that there are sound reasons for accepting that efficient and well-targeted government intervention may be able to improve market outcomes in some areas.

Role of the BCA

A pivotal question in this study is whether the BCA is an efficient and effective mechanism to address these imperfections. For example, are buyers and users of buildings confident that the BCA and its enforcement address the risks that arise from the knowledge gap, or are they increasingly seeking alternative means to address the problem? Even if the BCA does deliver, is it worth the cost?

While it might seem that all these market imperfections clearly justify regulatory intervention, this is not necessarily the case. The complexities of the problems and the trade-offs involved require flexible approaches. An alternative to regulation based on technical standards, would be to place greater emphasis on certifying the

expertise of practitioners and relying on them to make skilled judgments in the interest of their clients.

It is not realistic to expect the Code to redress all imperfections in the market:

In discussing the appropriate role for building codes, it is important to make a distinction between society's *goals* for buildings, and the *objectives* of building codes. While there are many things that society may wish for its buildings – aesthetically pleasing, affordable to purchase and operate, long-lasting – that does not necessarily mean that all of these *goals* should be reflected in the *objectives* of the building code. Regulation is not always the best way of achieving particular goals – it depends on the context and what alternative means may be available to achieve the goal. (Clemmensen 2003, pp. 1-2)

A building code is just one instrument in the tool-kit of possible solutions. The Chairman of the Canadian Commission on Building and Fire Codes, put it this way:

... our codes were not the best vehicles to achieve *all* of our societal goals with respect to buildings. Quality of construction, durability, liability, and the ability to compensate owners when things go wrong — all were identified as issues that were not appropriate objectives for the building code. In order to achieve these broader societal goals, it is necessary to recognise the importance of other key elements in the construction system ...

- A well-functioning market — with knowledgeable and accountable ‘professionals’ (designers, builders, manufacturers, contractors etc) who understand building and stand behind their product, and knowledgeable consumers who know their obligations and have access to the information they require to make informed decisions and choices.
- A legal framework for the conduct of business — so that all parties can be held accountable for their actions.
- Reliable standards, testing and design guides — so that ‘professionals’ and owners can have confidence in the materials and processes used in construction, and that these will be installed properly.
- Warranties and insurance — to provide a measure of assurance to building owners that any defects in the ultimate product will be rectified.
- Education and training — to enhance the knowledge and skills of those involved in the building process. (Clemmensen 2003, p. 3)

While this review is primarily about the Code (and the role of the Board), the Commission endorses the points made in the above quote. Chapter 7 describes how inadequacies in some of these elements are compromising building outcomes in a number of jurisdictions in Australia. The Code is just part of the system — it cannot (and should not) address the full range of market failures that are present in building.

3.3 Effectiveness

Effectiveness concerns whether set objectives have been met.

To judge effectiveness, it is important to assess the contribution that the ABCB makes to meeting each of its objectives — beyond what would have occurred without it. This is the ‘additionality’ criterion. At issue, for this study, is whether the Code and the regulation in which it is embedded add to effectiveness beyond the alternative mechanisms accessed by individuals and companies (such as expert advice and insurance) to address the market failures outlined above.

Another aspect of effectiveness concerns whether the costs of compliance can be reduced, while still addressing identified market imperfections and achieving given objectives. The calls for national consistency and performance-based standards can both be seen as attempts to lower compliance costs to achieve better outcomes without incurring higher costs.

Effectiveness will also depend on having sufficient resources and applying them well to ensure compliance with the regulations.

3.4 Efficiency

At the broadest level, efficiency concerns whether resources and economic enterprise have been allocated in a manner that maximises national welfare. Efficiency is a somewhat complex concept and defining it in an operational sense can be difficult. However, it is fundamentally about ensuring individuals and groups in society achieve their preferences at the lowest cost possible. Hence, a regulatory intervention is efficient if it effectively addresses a significant market failure to deliver the highest net benefit, compared with the available alternative mechanisms.

Judgment as to the extent to which improvements to efficiency are being made need to be addressed at two levels: (1) whether the Code is effectively targeted at addressing significant market failure; and (2) the overall assessment of the work of the Board and the relevance of its objectives to achieving efficiency. Section 3.2 discussed the characteristics the building sector has that could constitute market failure and thus result in resource misallocation and inefficiencies in an unregulated market. Section 3.3 briefly flagged the issue of effectiveness and whether the work of the Board is effectively achieving objectives, while minimising costs and adverse side-effects — thereby maximising net benefits.

The remaining question is whether the Board has been pursuing the right objectives. This is really a question of whether the Board’s 10 broad objectives (see box 1.1)

address the underlying market failures of the building industry and whether some are superfluous or even efficiency worsening. Do the objectives cover all areas where market failures arise? It is important to ask whether a different or clearer set of broad and specific objectives would provide better guidance on how to make the regulation more effective and the industry more efficient.

Efficiency, at a practical level, also involves some idea of proportionality: what is the nature and size of the potential costs borne by individuals and the community when adverse outcomes occur in the building sector? Some aspects, such as structural soundness, involve risk to life and limb, others concern the risks involved if a building fails to provide basic levels of amenity, such as being waterproof. So, an important question is whether regulatory standards and enforcement activities, which are costly to the community, are proportionate to the risk? In some cases, it may be that the risk does not justify the compliance costs and regulatory resources allocated to it.

Efficiency also relates to questions about the scope of the Code and the level of protection it provides. Among the 10 general objectives for the Board, objective 2 particularly focuses on the specific objectives of health, safety and amenity. On the other hand, objective 7 requires that all mandatory requirements on building be incorporated into the Code. These two objectives do not sit comfortably side-by-side, both in terms of determining the scope of the Code's coverage and the level of the standards. While objective 2 states that building requirements should be based on 'minimum least-cost' solutions, many building requirements set by other parties do not have this objective. For example, fire legislation sets high levels of property protection and the Disability Discrimination Act sets high standards to remove barriers on access to buildings by people with disabilities. Consistent guidelines should be established in the objectives in order to guide the coverage and level set by the Code.

Community expectations have played a role in justifying the level of protection provided by the Code. When markets do not work well people find it hard to satisfy their preferences for cost and quality. When mandated standards are required to address market weaknesses, a degree of choice is necessarily removed and, typically, policy-makers try to determine what level of quality individuals making up the community are, on average, prepared to fund. It is important to realise that the achievement of economic efficiency does not preclude community input. As such, 'community expectations' are taken into account, but in a way that places greater emphasis not just on what people want but also on what fully informed community members are prepared to pay for. This approach ensures community expectations can be dealt with in the context of a cost-benefit analysis, thus helping to make choices more realistic and cognisant of resource constraints.

3.5 Research and information provision

A core function of the Board is to provide technical guidance to building practitioners. Most of the results of research are contained in the Code and some are provided via guidance documents. Both forms seek to directly address the market failure relating to research. While the performance-based clauses provide the basis for the broad mandated requirements for buildings, the deemed-to-satisfy provisions of the BCA provide technical knowledge as one way to satisfy these requirements, while still giving freedom for others to explore innovative approaches where returns justify it. This collection of ‘recipes’ are not, in themselves, mandated. In this light, the deemed-to-satisfy provisions increase provision of research and information to the industry that would otherwise be under-provided due to the risk of free-riding. At issue, are questions such as whether all information provision, including the prescriptive standards, should be separated from the document which specifies the regulatory requirements.

3.6 National consistency

A principal objective of the IGA is to increase consistency in regulation across Australian jurisdictions. Indeed, some consider achievement of greater consistency to be the most significant imperative of the ABCB, because it is considered fundamental to achieving economies of scale and reducing the costs of compliance. Business and industry expressed frustration with operating in the multiple regulatory environments of the States and Territories, which limit interstate and international trade and mobility and constrain business opportunities.

Possible gains from greater consistency include:

- economies from industry supplying to a national building market;
- increased competitiveness;
- lower prices to consumers through greater competition and increased productivity; and
- decreased costs to industry.

Chapters 4 and 5 explore some of these impacts.

COAG’s *Principles and Guidelines for Standard Setting and Regulatory Action by Ministerial Councils and National Standard-Setting Bodies* seeks nationally *compatible* regulations and standards. Many consider that government, especially the Australian Government, must play a role in achieving this, due to the risk of

free-riding and non-compliance without government coercion when many players are involved.

The gains from national consistency in reducing costs and prices need to be balanced against the capacity of local councils and State and Territory Governments to pursue 'local' objectives. However, local councils and State and Territory jurisdictions do not necessarily represent the optimum decision-making units for setting building requirements. We would expect the optimum size and constituency of decision-making units to vary according to the issue, ranging, for example, over: climate; consistency of building appearance; impacts on catchment areas; exposure to bushfire risk; and earthquake and cyclone prone geographic zones.

If the BCA establishes the minimum acceptable to all communities across Australia and for zones with particular features, such as cyclones, should individual communities then be free to establish a higher standard for their particular community? Strongly held views exist for and against this notion, particularly in relation to planning issues. Relevant questions are whether planning requirements sometimes encroach into building requirements, and whether councils should control some aspects of building regulation where they impact on social objectives, such as access and environment.

Clearly, consumers can also exercise their sovereignty by having buildings constructed to a higher than mandatory standard if they are prepared to pay and can verify that their requirements have been met.

If the BCA sets baseline standards that prescribe efficient levels of amenity, health and safety, the question is how difficult is it for individuals and communities to achieve higher levels of outcome when they wish? How do they deal with the information gap to ensure they get the product they believe they are paying for? They need to be reassured that regulatory enforcement is at least delivering the standard as specified in the BCA. To move beyond this baseline, they need to be able to access: mechanisms that help them communicate effectively what they want from a building; inspection services that confirm whether their requests have been satisfied; and, finally, efficient means of redress if they have not.

Any variations to the BCA need to be justified. Sometimes, differences are intrinsic to a locality and require particular, tailor-made regulations. Sometimes, they reflect the aspirations of the inhabitants of a community. In almost all cases, where a particular jurisdiction wants to set a different standard from the national one, the case for the variation should be put under scrutiny. Important questions to ask include what is the difference worth and how much would it cost to maintain it (for example, in terms of greater costs of compliance and decreased competition)?

3.7 Good regulation and regulatory governance

Also of critical importance to this review is the assessment of the *ways* by which standards and other requirements are developed and delivered — regulatory governance.

The design, implementation and enforcement of regulation are instrumental to ensuring it is effective, efficient, achieves an appropriate balance between local needs and national consistency, and overall provides the greatest net benefit to the community (Argy and Johnson 2003). While it is often difficult to measure empirically how well a regulatory regime has been designed, implemented and enforced, there is broad agreement on the characteristics of good regulation and the processes and principles of regulatory governance which are likely to engender good regulation with efficient and effective outcomes. Almost all OECD countries have adopted explicit regulatory review and reform programs, encompassing a range of mutually supportive tools and institutions and member countries agree on a number of broad best practice strategies for achieving better quality regulations. These strategies cover both the flow of new regulations and the stock of existing regulations.

The Australian Office of Regulation Review (ORR) has consolidated the best practice regulatory design standards and guiding principles that have been identified by various Australian and international bodies involved in regulatory management and reform. This checklist (see box 3.1) provides criteria by which to assess the quality of regulation. These are broadly the criteria by which the BCA is assessed in chapter 5.

Regulation which satisfies these criteria will also generally target significant problems, usually market failure, while minimising the scope for ‘government failure’.

In addition to assessing the quality of the BCA, this review also assesses the processes and institutions by which the ABCB develops regulation. A well designed institutional framework for managing and coordinating regulatory reform is a key component of regulatory governance. This is because the institutions and processes are pivotal to delivering good quality regulation. Based on the OECD’s *Guidelines for Improving Regulatory Quality*, box 3.2 identifies aspects of the processes and institutions that are key to good regulatory outcomes.

Box 3.1 Checklist for assessing regulatory quality

Regulations that conform to best practice design standards are characterised by the following seven principles and features:

- Minimum necessary to achieve objectives
 - Overall benefits to the community justify costs;
 - Kept simple to avoid unnecessary restrictions;
 - Targeted at the problem to achieve the objectives;
 - Not imposing an unnecessary burden on those affected; and
 - Does not restrict competition, unless demonstrated net benefit.
- Not unduly prescriptive
 - Performance and outcomes focused; and
 - General rather than overly specific.
- Accessible, transparent and accountable
 - Readily available to the public;
 - Easy to understand;
 - Fairly and consistently enforced;
 - Flexible enough to deal with special circumstances; and
 - Open to appeal and review.
- Integrated and consistent with other laws
 - Addresses a problem not addressed by other regulations; and
 - Recognises existing regulations and international obligations.
- Communicated effectively
 - Written in ‘plain language’; and
 - Clear and concise.
- Mindful of the compliance burden imposed
 - Proportionate to the problem; and
 - Set at a level that avoids unnecessary costs.
- Enforceable
 - Provides the minimum incentives needed for reasonable compliance; and
 - Able to be monitored and policed effectively.

Sources: Argy and Johnson (2003) derived from: OECD (1995); Office of Regulation Reform (Vic) (1996); COAG (2004 — as amended); ORR (1998); and Cabinet Office (UK) (2000).

Box 3.2 Aspects of good regulatory governance

- Adopt an explicit regulatory reform policy at the highest political levels.
- Devise explicit standards for regulatory quality (as outlined in box 3.1) and principles of regulatory decision making and fully integrate into policy-development processes.
- Systematically consider regulatory and non-regulatory alternatives.
- Implement administrative simplification and reduce compliance costs.
- Create effective mechanisms for managing and coordinating regulation and its reform.
- Direct regulatory resources optimally so as to bring the greatest net benefit, such as incorporating risk management to determine this.
- Make impacts transparent when devising regulation — use regulatory impact analysis.
- Avoid capture by specific interest groups.
- Ensure regulations are adopted and enforced to the optimum degree, with sufficient resources to achieve optimum compliance.
- Ensure regulations and regulatory processes are transparent, non-discriminatory and efficiently applied:
 - clearly articulate reform goals and strategies to the public;
 - institute systematic public consultation procedures;
 - ensure domestic and foreign businesses can easily identify all regulatory requirements applicable to them; and
 - ensure that procedures for applying regulations are transparent, non-discriminatory, contain an appeals process and do not unduly delay business decisions.
- Review and update existing regulations systematically:
 - to ensure that they continue to meet their intended objectives efficiently and effectively and that these objectives are still relevant;
 - integrate regulation impact analysis into the review;
 - target regulations where change is likely to yield the highest net benefits, particularly regulations restricting competition and trade; and
 - use automatic review methods, such as sun-setting.
- Evaluate results of regulatory programs.

Sources: OECD 1997a, 1997b, 2002.

These criteria have been used in chapters 8 and 10 to assess the past performance of the ABCB and to make proposals for changes.

Regulatory impact analysis

Amongst these instruments of regulatory governance, the use of Regulatory Impact Statements (RISs) is one of the most important in Australia. According to the OECD (2002, p. 48), there is widespread agreement that regulatory impact analysis, when done well, ‘improves the cost-effectiveness of regulatory decisions and reduces the number of low-quality and unnecessary regulations’. All State and Territory Governments (except Western Australia) conduct formal regulation impact analysis (see chapter 8).

The RIS process provides a framework for the consistent, systematic and transparent identification of the problems being addressed and assessment of alternative approaches to solve them. RISs should enhance regulators’ ability to identify solutions that will meet government objectives in the most effective and efficient manner. The RIS process embodies a number of other regulatory quality tools, for example: the establishment of standards for regulatory quality; consultation; and red tape reduction.

Argy and Johnson (2003) have analysed information from OECD publications and experiences of the ORR to identify criteria for evaluating regulatory impact analysis programs. These underlie the evaluation of the use of RISs by the ABCB in chapter 8 of this review.

Some interested parties have commented that the cost-benefit analysis that is central to regulation impact analysis only deals with those costs and benefits that are quantifiable. This does not reflect established practice. Under RIS processes, intangible costs and benefits are also assessed. Either the RIS estimates a proxy dollar value for the intangible factors or indicates what they are so that the final decision-maker can make the judgment as to whether the objective justifies the costs involved. For example, the RIS for access to buildings for people with disabilities estimated quantifiable costs as \$26 billion and quantifiable benefits as \$13 billion. It is now up to the decision-makers to decide whether or not the non-quantifiable benefits of guaranteeing non-discriminatory access are greater than \$13 billion. In other words, they will judge whether the subjective benefits are sufficiently large to produce a net benefit to society as a whole.

4 Impact of reforms

In accordance with the Commission's terms of reference for this study, this chapter seeks to shed light on the contribution that reform of building regulation under the auspices of the ABCB has made to the productivity of the building and construction industry and its impact on economic efficiency in Australia.

Section 4.1 discusses the state of the industry, with some historical information on output, employment and trade. Section 4.2 analyses the productivity performance of the building industry, section 4.3 attempts to identify the contribution of regulatory reform, and section 4.4 focuses on the issue of economic efficiency.

4.1 State of the industry

As noted in chapter 1, this study focuses on residential and non-residential buildings, in line with the ABCB's involvement with the industry. Additionally, discussion of the industry can include its inputs — namely building materials (such as cement, timber and steel) and associated professional services (such as architects, surveyors and engineers). Discussion of these inputs is included where it is relevant to the analysis in this chapter. A more detailed discussion of the state of the industry is contained in appendix E.

Output

In 2002-03, building work done — including both residential and non-residential buildings — totalled \$47.1 billion (in current prices), or 6.3 per cent of Gross Domestic Product (GDP). Given the cyclical nature of the industry, its share of GDP varies significantly — over the last 20 years it has ranged from a high of 7.9 per cent (during 1989-90) to a low of 5 per cent (in 2000-01).

Of the sub-sectors in the industry, residential building dominates non-residential, accounting for slightly over two thirds (69.1 per cent) of work done (by value). Geographically, the industry is concentrated in the more populous states, with New South Wales, Victoria and Queensland accounting for 82 per cent of building work done in Australia in 2002-03.

Employment

Employment in the building industry is mildly cyclical and displays a time lag in comparison to output, varying from 6.1 per cent of total employed persons in 1997 to a high of 7.8 per cent in 2004. Contracting and sub-contracting is a notable feature of the industry. Associated with this form of organisation, small firms predominate in the building industry to such an extent that, for the building and construction industry (including residential, non-residential and engineering construction), an average of 3.9 people are employed per firm.¹

International trade in building

In addition to servicing the domestic market, the building industry is engaged in international trade. This trade encompasses both the manufactured goods associated with buildings (inputs such as steel and heating systems) and the services required to build them (for example, contractors, architects and engineers).

Trade in goods

Australia's trade in building-related goods is centred around exports of raw materials such as steel and imports of finished products such as heating and cooling systems. In 2001-02, exports of building-related goods totalled \$3.0 billion, up from \$1.7 billion in 1989-90. This represented 2.5 per cent of total merchandise exports in 2001-02 and 3.4 per cent in 1989-90. However, there are difficulties in identifying the extent to which these goods are destined for use in the building industry overseas. Building exports, particularly materials, can also be utilised as inputs into other industries. An example of this is the use of iron or steel in the manufacture of automobiles as well as buildings. As such, values for exports by product categories may overstate the trade in building (see appendix E).

Imports of building-related goods consistently increased over the 1990s and into 2001-02, going from \$5.7 billion in 1989-90 to \$11.1 billion in 2001-02. Building products were the main contributor to this aggregate (nearly \$5.0 billion), while building systems were the lowest (almost \$1.7 billion). As with exports, not all imports will be used in the building industry and, as such, these values may overstate imports used in the building industry.

¹ ABS (*Private Sector Construction Industry, 1996-97: Australia*, Cat. no. 8772.0).

Trade in services

Total exports of building and construction services (a combination of construction, architectural, engineering and other technical services) generally grew over the 1990s, increasing from \$336 million in 1991-92, to a high of \$723 million in 1999-2000, before declining over the last three years, with exports at \$589 million in 2003-04. These exports accounted for 1.7 per cent of total services exports in 2003-04.²

In 2003-04, construction services exports (which include residential and non-residential building construction) made up 13.2 per cent of total building and construction services exports, up from a low of 4 per cent in 1998-99.³ This represented 0.2 per cent of total services exports in 2003-04 and less than 0.1 per cent in 1998-99. Exports of construction services are not only small, but volatile, reaching a high of \$105 million in 1994-95 before falling to \$18 million in 1998-99 and recovering to be at \$78 million in 2003-04. This volatility is affected by both international and domestic conditions:

This volatility reflects the extent to which exports are effected by the cycles of domestic and international construction activity, the 'Asian Crisis' and the fact that there is still a significant extent to which exports are seen as a marginal activity which is indulged only when there is excess capacity/low demand in the domestic market. (CSES 2000, p. 47)

As with exports, imports of building and construction services increased over the 1990s, going from \$235 million in 1991-92 to a high of \$559 million in 1999-00, before declining to be at \$360 million in 2003-04.⁴ There were no recorded imports in the available data for construction services from 1991-92 to the present.

4.2 Building industry productivity

Productivity measures the effectiveness of resource use. At a national level, it is the major determinant of long-term growth in the average incomes and material living standards of Australians, while at an industry level, it is an indicator of how the industry's productive inputs are used to generate income (see box 4.1).

Broad determinants of productivity include:

- the accumulation of human capital, evidenced by workers' skills and the ways in which they work;

²ABS (*Balance of Payments and International Investment Position, Australia*, Cat. no. 5302.0).

³ABS (*Balance of Payments and International Investment Position, Australia*, Cat. no. 5302.0).

⁴ABS (*Balance of Payments and International Investment Position, Australia*, Cat. no. 5302.0).

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- the changes in firm organisation and dynamics — the scale and scope of firms' operations, adoption of 'best practice', managerial practices and entry, exit and growth of firms;
 - the adoption of technology and related innovation in products, processes and organisational structure;
 - the nature of the market and the incentives it provides for organisational and technical change; and
 - the actions of government, including the conduciveness of the general operating environment to organisational and technical change, industry-specific incentives for change and the regulatory and administrative environment.

Box 4.1 What is productivity?

Productivity is a measure of the capacity of individuals, firms, industries or entire economies to transform inputs into outputs and generate income.

More precisely, productivity is a measure of the rate at which outputs (of goods and services) are produced from given amounts of inputs (skills, effort, land, raw materials, machinery, management and so on). Higher productivity means more goods and services can be produced for the same commitment of resources and effort.

At its simplest, the level of productivity is measured as the ratio of output to one or more inputs; for example, the number of cars produced per employee or the number of tonnes of wheat produced per hectare. Productivity growth measures the growth in output per unit of input over time. Improvements in productivity can come through the development and adoption of better techniques of production or by committing inputs to more productive uses.

Productivity growth cannot be directly observed and measured. Rather, it is calculated as a residual — the amount of output growth that remains after allowance is made for the contribution of growth in inputs.

A *partial productivity* measure allows for the growth in one input. For example, the growth in *labour productivity* would be calculated as the growth in output over a period less the growth in labour inputs over the same period. Similarly, the growth in *capital productivity* would be calculated as the growth in output less the growth in capital inputs.

A *multifactor productivity* measure allows for growth in more than one input. Usually, as is the case in this study, it involves the two inputs labour and capital. The growth in multifactor productivity can be calculated as the growth in output less the growth in a combined index of labour and capital inputs.

Source: Industry Commission (1997) pp. 3, 19.

To inform its analysis of changes in building industry productivity, the Commission has drawn on submissions from interested parties and past research studies on the building industry. The Commission also conducted a small survey of building surveyors, which gathered views on how regulatory reforms have affected the industry's performance.

It is important to recognise that productivity changes over time cannot necessarily be attributed to regulatory reform. There are many factors affecting productivity. Formally attributing productivity performance to the various influences, via an econometric study, was not practicable because of both the relative recency of some of the reforms and the difficulties in establishing a robust measure of regulation reform in order to separate out the effects of reform from other — often inter-related — impacts on productivity. Consequently, the information provided is indicative only of some of the influences on productivity.

Productivity — the industry's performance

This chapter presents productivity measures that have been calculated for the construction industry as a whole.⁵ Information is not available for the calculation of robust measures of the separate productivity performances of the residential and non-residential building sectors (including construction trade services) that are the focus of the Commission's terms of reference.

The extent to which the use of construction industry-level data (which include engineering construction activity) gives a distorted picture of the productivity performance of the more narrowly defined building industry depends on the characteristics of the engineering sector and its performance compared to the building sector.

Available data show that the engineering construction sector has accounted for between 6 to 10 per cent of construction employment and around 30 per cent of construction output over the last 10 years (see appendix E). Both engineering and building output are increasing over time. However, in recent years, the increase in output in the engineering sector has been accompanied by a fall in employment (both in absolute terms and as a proportion of construction employment). In contrast, building output has risen in conjunction with a rise in building employment.

⁵ The building industry covered by the terms of reference is captured within Division E (Construction) of the Australian and New Zealand Standard Industrial Classification (ANZSIC). This includes engineering construction activity (Non-Building Construction) as well as Building Construction (house, residential and non-residential building construction) and Construction Trade Services.

On the face of it, this might suggest that any recent improvements in labour productivity in the construction industry are coming, in large part, from improved labour productivity in the engineering sector. As such, using construction industry-level labour productivity as an indicator of building industry labour productivity may overstate the productivity performance of the building sector in recent years.

Overall, caution should be used when interpreting the productivity figures with respect to the building sector. The use of qualitative information from industry participants is a valuable augmentation of the quantitative picture (see survey results later in this chapter).

Using the data for the construction industry as a whole showed labour productivity in the construction industry increased ahead of general improvements in productivity from the mid 1970s to the early 1980s (see figure 4.1). Since then labour productivity has generally increased at a slower rate than growth for other market sector activities, with the level of market sector labour productivity overtaking the construction industry in the early 1990s.⁶ Multifactor productivity growth in the construction sector has also been slower than in the market sector since the early 1980s, and has only recently attained a comparable level of productivity to the market sector (see figure 4.2).

Looking at the trends displayed in the figures, the construction data appear to correspond to three periods — relatively strong productivity growth in the late 1970s and again in the late 1990s, with a period of stagnation and decline over the 1980s and early 1990s.

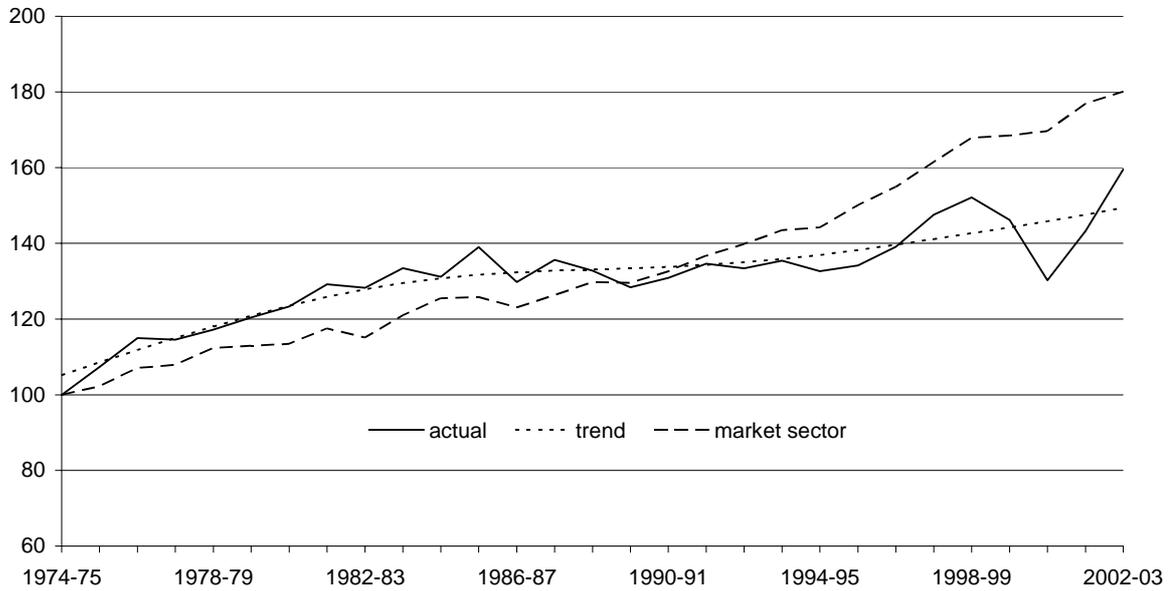
Another notable feature of the data is the ‘kick’ at the end of the time series. While the 2002-03 endpoint should be treated with caution, as these figures can be subject to significant revision, the data show a strong downward then upward movement in both labour and multifactor productivity. Such sudden shifts are likely to reflect the operation of particular, time-specific circumstances, such as the introduction of the GST and the impact of the Olympics. Crowley explained the sharp fall in labour productivity in 2000-01 as an unusual and temporary downturn:

In the lead up to the introduction of the GST there was a bunching of projects. After the Sydney Olympics there was a downturn in construction activity. At the same time, the level of employment in the sector did not decline. This resulted in a sharp fall in measured labour productivity. (2002, p. 2)

⁶ The market sector is defined by the ABS as all industries less: Property and Business Services; Government Administration and Defence; Education; Health and Community Services; and Personal and Other Services. These are excluded because their outputs are not marketed and/or because their outputs are derived either wholly or primarily by using either deflated input cost data or hours worked as indicators of output (ABS 5206.0, December 2003).

Figure 4.1 Labour productivity for the construction sector

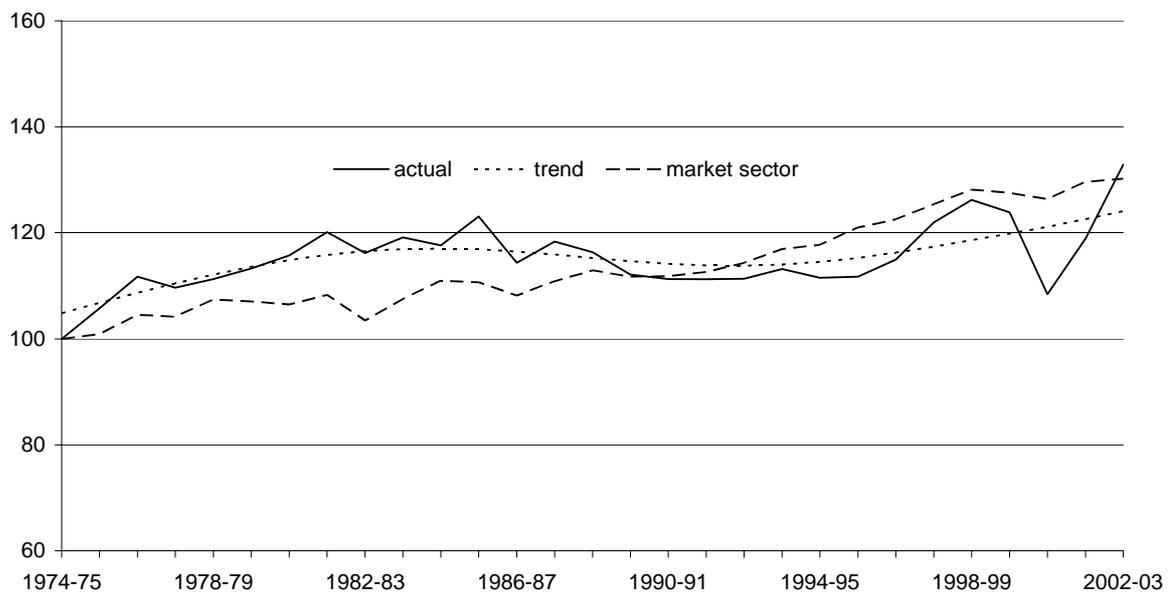
Index 1974-75 = 100



Source: Productivity Commission (2004d).

Figure 4.2 Multifactor productivity for the construction sector

Index 1974-75 = 100



Source: Productivity Commission (2004d).

Comparing productivity growth to that of the market sector over peak-to-peak productivity cycles (see table 4.1) confirms that, for the majority of the productivity cycles, construction lagged behind the market sector. In fact, in three periods where the market sector had low but positive multifactor productivity (MFP) growth, construction displayed negative MFP growth.

However, both labour and multifactor productivity had a big turnaround from 1993-94 — an acceleration of 1.8 percentage points for labour productivity growth and 2.3 percentage points for multifactor productivity growth over the previous productivity cycle. The MFP growth outweighed the deceleration in capital deepening (-0.5 percentage points).

Table 4.1 Construction and market sector productivity growth
Comparison over peak-to-peak productivity cycles (% per year)

	<i>Labour productivity growth</i>		<i>MFP growth</i>		<i>Capital deepening</i>	
	Market	Const.	Market	Const.	Market	Const.
1973-74 to 1981-82 ^a	2.4	3.7	1.1	2.5	1.4	1.2
1981-82 to 1984-85	2.2	0.4	0.8	-0.5	1.4	0.9
1984-85 to 1988-89	0.8	0.2	0.4	-0.2	0.4	0.4
1988-89 to 1993-94	2.0	0.3	0.7	-0.4	1.3	0.7
1993-94 to 1998-99	3.2	2.1	1.8	1.9	1.3	0.2
1998-99 to 2002-03 ^b	1.8	1.0	0.4	1.1	1.4	-0.1

^a Construction data for 1974-75 to 1981-82. ^b Incomplete productivity cycle.

Sources: ABS (*Australian System of National Accounts*, Cat. No. 5204.0) and Productivity Commission (2004d).

Overall, the productivity measures for the construction industry contain two key features: a lower-than-market sector productivity performance in most productivity cycles since the early 1970s; and a sharp turnaround in productivity in the 1990s — from negative productivity growth to positive productivity growth. This turnaround in construction industry productivity was stronger than in the market sector, and persisted longer than in the market sector.

FINDING 4.1

The productivity performance of the construction industry as a whole (including engineering construction) has been lower than that of the market sector over the past 20 years. However, there was a notable turnaround in the 1990s, from negative to positive labour and multifactor productivity growth.

Regulatory reforms

This study is interested in identifying the particular effects of regulatory reform in the building industry, under the auspices of the ABCB, on productivity in the building industry. These regulatory reforms may act on building industry productivity through:

- direct effects on compliance costs and efficiency. For example, greater consistency in technical regulations across jurisdictions may reduce education and training costs for firms and allow consolidation into a head office in one state; and
- indirect/dynamic effects on efficiency via competition, incentives for knowledge and skill acquisition and incentives to innovate. For example, performance-based standards may give greater design freedom, allowing builders to use new and cheaper building ‘solutions’.

The regulatory changes undertaken by the ABCB may also have an influence on other industries that supply the building industry, with potential flow-on effects to the building industry. In particular, parts of the manufacturing and professional services sectors may take advantage of building regulatory reform to provide cheaper, higher quality or new products and services to the building industry. For example, greater consistency in building regulations may allow manufacturing firms to reduce design variations during manufacture. This may have significant flow-on benefits to the construction industry through lower costs or higher quality, as manufacturers take advantage of economies of scale and become more proficient in their specialised product.

There have been a number of reform activities since the early 1990s in relation to the Code and its administration, but the performance-based Building Code of Australia (BCA) and the introduction of private certification have perhaps been the most widely adopted. Table 4.2 below lists the adoption dates of these two regulatory changes in each State and Territory.

Table 4.2 Adoption dates of the performance-based BCA and private certification

<i>Jurisdiction</i>	<i>Performance-based BCA</i>	<i>Private certification</i>
New South Wales	1997	1998
Victoria	1997	1993
Queensland	1997	1998
Western Australia	1997	Not yet
South Australia	1998	1993
Tasmania	1997	2004
ACT	1997	1999
Northern Territory	1998	1993

Sources: BCA 2004 Volume 1, p. 739; sub. 4, p. 40.

Other major regulatory changes include the national product certification scheme (taken over by the ABCB in 1995 and recently closed), changes to liability rules (adopted at different times and to a different extent in each jurisdiction), reductions in variations in technical building standards across jurisdictions and improvements to the ‘user-friendliness’ of the BCA. The ABCB’s economic evaluation system, used to assess regulatory proposals for their benefits and costs (see chapter 8), may also have been a potential influence on industry performance, as it aims to reject those regulations that impose a net cost on the economy. The ABCB began preparing regulatory impact statements using this system in early 1998. The ABCB also runs a research program, with projects to date including aged care facilities, energy efficiency and some fire issues (see chapter 9).

While the effects of some regulatory changes may have manifested themselves in industry performance relatively quickly, others take time to be absorbed, acted upon and reflected in performance. Given this, some of the assessment of the effects of regulatory reform will be forward-looking — looking at where productivity gains could be made and speculating about the potential contribution the reforms already in place could make to achieving these gains.

4.3 Sources of productivity change

This section draws on the qualitative and quantitative evidence garnered from submissions, the Commission’s survey of building surveyors and previous research reports on the industry. After a discussion of the survey results, other evidence is presented using the framework of key influences on productivity — labour force skills, firm organisation and technology. For each of these we can ask:

-
- What has been the contribution to the productivity performance of the building sector?
 - How has regulatory change affected this contribution to date?
 - What impact are the existing regulatory changes likely to have in the future?

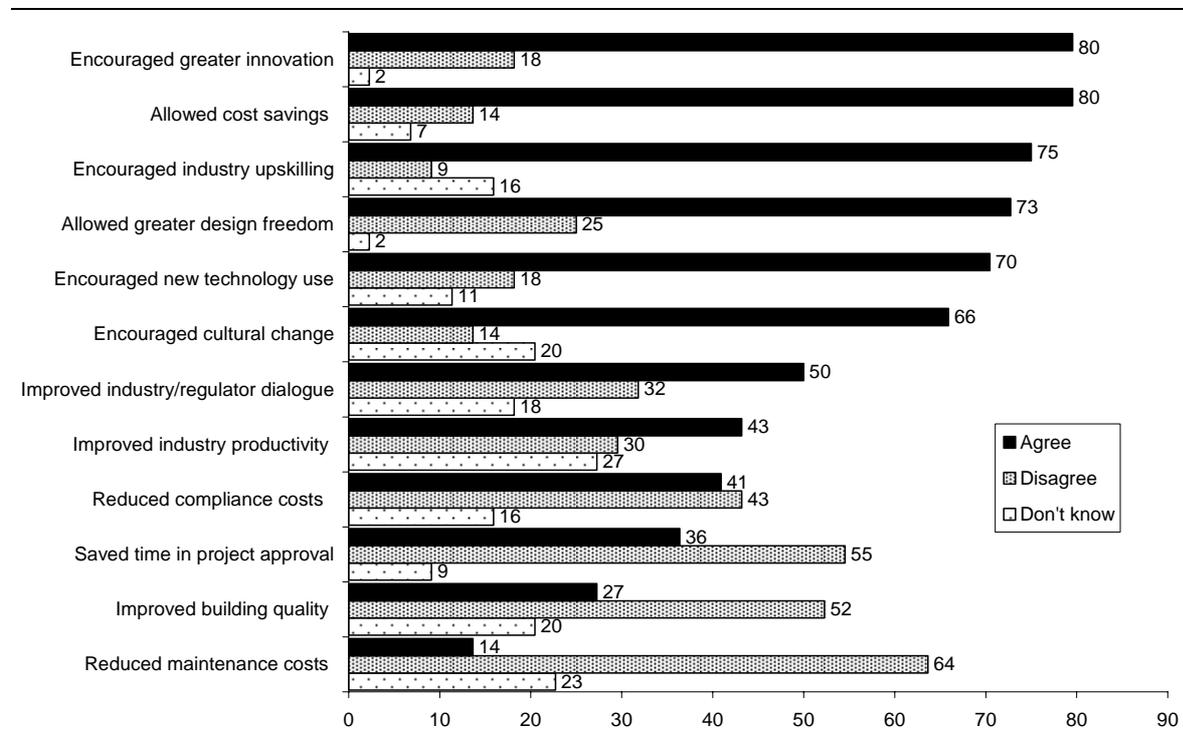
Survey results

To supplement existing information sources on building industry performance and the impact of regulatory reform, the Commission undertook a small survey of building surveyors (see appendix F for detail of the survey and its results). The survey aimed to gather the views of practitioners with broad industry experience from some of the key building surveyor firms in each jurisdiction, as well as a selection of smaller operators and council surveyors. Forty-four completed forms were returned (a response rate of 56 per cent), with one-quarter of these representing councils and the remaining three-quarters representing private firms. The information from respondents provides a broad picture of some of the perceived benefits of reform and key areas of concern amongst surveyors.

Survey respondents felt that regulatory reforms in the building industry had made an overall positive impact on industry performance, where performance was defined to include productivity, innovation, quality and efficiency. The performance-based Code and private certification, in particular, were identified as having a strong positive effect on performance. However, views on private certification were strongly dependent on the affiliation of the respondent, with council surveyors less positive in their responses. Had there been a larger number of council surveyors in the Commission's survey, it is likely that the overall response would have been less positive towards the introduction of private certification.

Figures 4.3 and 4.4 below show respondents' views on the impacts of the introduction of performance-based regulation and private certification. For both of these reforms, 65 per cent or more of the respondents agreed with statements that the reforms had led to cost savings, encouraged upskilling, allowed greater design freedom leading to new and cheaper building solutions, and encouraged cultural change in the industry. Council surveyors, as a group, exhibited a broadly similar response pattern with respect to performance-based regulation, but registered lower levels of agreement with the statements on private certification (see figures F.8 and F.9 in appendix F).

Figure 4.3 Performance-based regulation: respondent views on impacts on industry performance^a
per cent

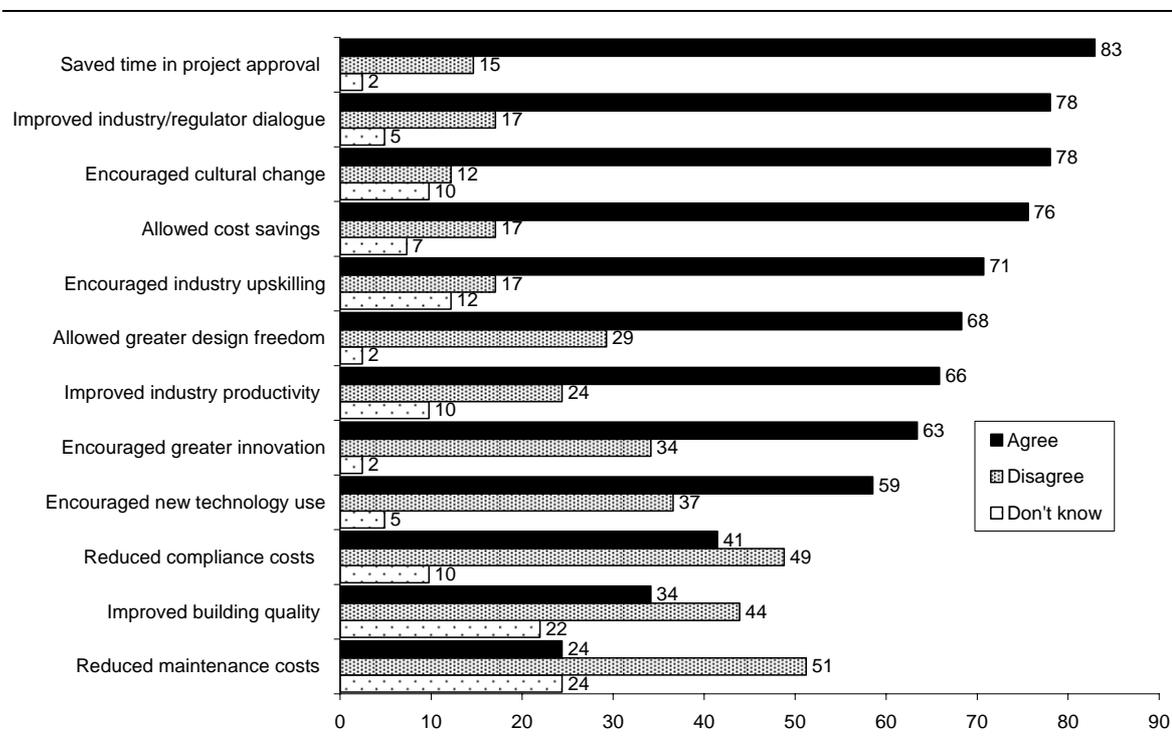


^a Categories are sorted in descending order by level of agreement with each statement.

Source: PC Building Survey 2004.

Figure 4.3 shows that 80 per cent of respondents thought that performance-based regulation had encouraged greater innovation in the planning and building stages. Seventy per cent also thought that it had encouraged the use of new technology. However, over 50 per cent of respondents disagreed with the statements that performance-based regulation had saved time in gaining project approval, improved building quality or reduced building maintenance costs. (Chapter 5 discusses the impact of the performance-based Code on maintenance requirements, including the potential for cost-shifting.)

Figure 4.4 Private certification: respondent views on impacts on industry performance^a
per cent



^a Categories are sorted in descending order by level of agreement with each statement.

Source: PC Building Survey 2004.

Figure 4.4 shows that 83 per cent of respondents thought that private certification had saved time in gaining project approval. Seventy-eight per cent also thought that it had improved dialogue between industry and regulators and had encouraged cultural change in the industry. A majority of respondents (66 per cent) indicated that private certification had improved industry productivity. Respondents were fairly evenly split, however, on whether private certification had reduced regulatory compliance costs, and a significant number (44 per cent) disagreed that private certification had improved building quality.

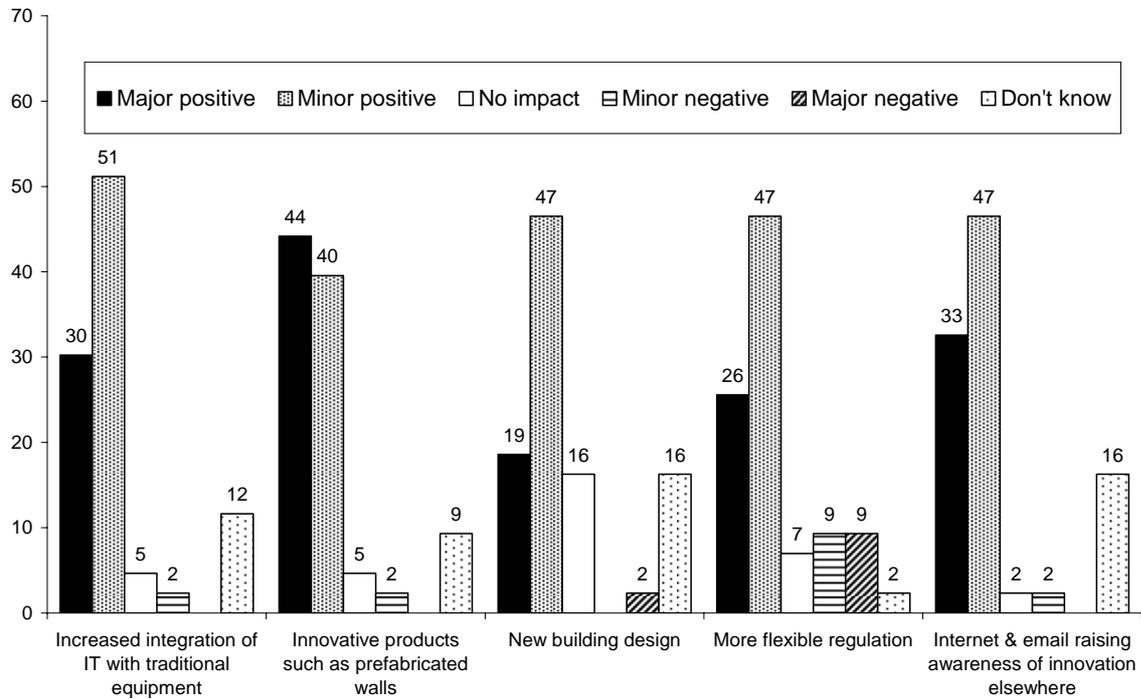
Responses indicated that design freedom was regarded as the most significant benefit of performance-based regulation, while time saved in gaining project approval was regarded as the most significant benefit of private certification (see figures F.3 and F.5 in appendix F).

In terms of adverse outcomes of reforms, the most common issues raised with respect to performance-based regulation were reductions in fire safety and quality assurance. Issues raised in relation to private certification included concerns about maintaining standards and conflicts of interest. Respondents' views on liability

reforms were mixed, with only 25 per cent rating them as having an overall positive impact and 41 per cent rating them as having a negative impact.

The survey also asked respondents to nominate the main drivers of innovation in the building industry (see figure 4.5 below). More flexible regulation was regarded as a positive factor by 73 per cent of respondents and over 80 per cent of respondents indicated that use of innovative products (such as prefabricated walls) and increased integration of IT with traditional equipment had a positive role in promoting innovation in the industry.

Figure 4.5 Drivers of innovation



Source: PC Building Survey 2004.

The Commission received a low response rate to the question in the survey that related to industry-wide drivers of productivity. Just over half of respondents were not prepared to directly comment on what had been the major drivers of productivity growth, with the remainder generally citing technological change or improved labour practices.

Labour force skills

The Royal Commission into the Building and Construction Industry noted that an important aspect of productivity in the building industry is the skill level of the

workforce and how that level is maintained and enhanced over time as the needs of the industry change (2002b, p. 58). A number of reports regarding skills and training in the building sector have been completed in recent years, with particular concerns arising over skill levels, the number of skilled workers in the industry, the structure of training and the amount of training taking place. (Some of these issues are discussed further in chapter 7.) No consensus has emerged, however, as to the severity of the problems or the way forward.

There are also questions about the licensing and other professional arrangements for building practitioners. The National Building and Construction Committee (NatBACC) 1999 report to Government suggested that while worthwhile improvements had been made to building regulations through the BCA, it was not clear that the regulatory environment for some professions and trades was enhancing the productivity and performance of the building industry (p. 11). Consistency of regulations appeared to be a key concern, with NatBACC supporting the Government's ongoing work to limit the cost, time and resource burdens resulting from conflicting regulatory regimes across and within jurisdictions. (This is discussed further in chapter 7.)

The National Skills Initiative Working Group for the building and construction industry reported that while around 48 per cent of the building and construction trades workforce hold a post-school qualification (higher than the Australian workforce average), a further 45 per cent have no formal qualifications at all (2001, p. 54). The Working Group suggested that the existing workforce may not be able to meet contemporary industry needs for high level technical skills. Croce et al. (1999) found project managers expressing concerns that skill limitations within the workforce were sufficient to affect design considerations, with some aspects of design having to be changed because the relevant building skills were not available (p. 150). Construction Training Australia (CTA⁷) also noted that the literacy and numeracy skills of the construction workforce are cause for concern, with younger members of the workforce displaying poorer numeracy skills than older workers (2003, p. 26).

However, the Working Group concluded that the combination of commencements in new apprenticeship training and the large number of non-apprenticeship training pathways have been sufficient to keep up with overall employment levels in the industry (2001, p. 71). This contrasts with the view of CTA, which believed training levels were lagging behind building and construction activity and that this would lead to a skills shortage (2003, p. 48).

⁷ CTA ceased trading on 31 May 2004.

On training, the Working Group suggested greater flexibility was needed to allow specialised occupational outcomes to form part of nationally recognised qualifications (2001, p. 20). NatBACC also raised concerns that the education infrastructure lacked the flexibility to meet the skill demands of the industry (1999, p. 19). But the Senate Employment, Workplace Relations and Education References Committee disagreed with this, saying:

... the committee majority are clear on this point: that the long-term interests of the industry are best served by broadly-based training, and that it is the role of the state to maintain high standards in the national interest, rather than to pay undue attention to the needs of individual enterprises in an industry ... (2004, para. 7.11)

The Working Group also found the industry spent less on structured training than did other industries and suggested the benefits of training needed to be marketed to the industry (2001, pp. 21–2). The size of firms in the construction industry appears to have a large bearing on the amount of training taking place. Between 1990 and 1995, the construction industry had the largest increase in the proportion of workplaces providing formal training programs — from 44 per cent to 73 per cent (PC 1999c, p. 185; Morehead et al. 1997, p. 444). However, this only included workplaces with 20 or more employees. Overall, only 29 per cent of employers in the industry provided structured training in 1997, below the all-industry average of 35 per cent (CTA 2003, p. 38).

The Royal Commission noted that a lack of accurate data on training makes it difficult to measure training's contribution to productivity and growth in the industry (2002b, p. 60). However, it appears that there may be some scope for improving the skills and training situation in the building industry. The generally low skill levels in the industry may have been a factor in generating labour productivity growth that has been lower than that of the market sector. In case studies undertaken by Croce et al. (1999), participants regarded inadequate training of workers to be damaging to productivity, as it slowed the pace of work, required increased supervision of workers, more explanations and instruction and often resulted in rework being undertaken (p. 25). Croce et al. also commented that declining skills would impose costs one way or another:

... without sufficient investment to maintain industry skill levels, ... current clients of the construction industry are receiving a significant benefit at the expense of future clients, who will pay either through a lower-skilled, lower-productivity industry in the future or through having to fund all of the capital costs of re-building lost skill levels in the future. (1999, p. 152)

The regulatory reforms undertaken to date, such as the performance-based Code, certainly reinforce the need for a high level of skills and competency (including, as discussed in chapter 9, an enhanced understanding of the regulations contained in the Code). They may also provide an incentive for some members of the workforce

to increase their skill levels, in order to enter the private certification market or to provide clients with high quality innovative building solutions. For example, the Western Australian Department of Housing and Works noted that the introduction of contestable certification services has significantly lifted the professional status of building surveyors and their collective knowledge and skill base (sub. 14, p. 8). Respondents to the Commission's survey also suggested performance-based regulations and private certification had encouraged parts of the industry to upskill. Increased licensing and insurance requirements, initiated through liability reforms, may also have increased the incentive (or necessity) to gain further skills. Consistency in technical and administrative building regulations across jurisdictions should help to lower the costs of education, training and professional registration for building practitioners, especially for those operating across borders.

Workplace relations

Workplace relations have been a contentious issue in the building sector. Reports have generally been consistent in suggesting that reforms to work arrangements would help to lift the productivity and competitiveness of the industry. The Housing Industry Association (HIA) suggested general industrial relations reforms had contributed to productivity growth in the building sector (sub. 6, p. 13), as did the Property Council of Australia (PCA) (sub. 52, p. 25).

The Productivity Commission's 1999 report into work arrangements on large capital-city building projects found that industrial action and inclement weather stoppages were a major source of inefficiency on building sites in the late 1980s (1999b, p. xxiv). While some changes were made in the 1990s, the Commission suggested there was scope for further improvements in areas such as enterprise level negotiations by subcontractors, restrictions on performance-related payments and limits on self-employed subcontractors, casual and labour hire workers (pp. 138–9).

Several other studies have suggested workplace reform would improve industry performance. NatBACC's 1999 report to Government asserted that changes in workplace relations were required in order to improve the efficiency and global competitiveness of the building industry. The report recommended Government develop further initiatives designed to simplify industrial awards, lessen industrial disputation, provide more effective remedies for employers in the event of disputation and reform unfair dismissal provisions (p. 18). (While the link between such changes and productivity have not been tested, Tasman Economics found that, over the period 1982-83 to 2000-01, there was a relatively poor correlation between the number of days lost to industrial disputes and changes in productivity (2002, p. 21).)

A 2003 report for the Department of Employment and Workplace Relations (DEWR) also asserted that there was significant scope to increase productivity in the building sector through initiatives such as workplace reform. That study suggested that differences between the costs of completing identical tasks (such as laying a concrete slab) in commercial building and domestic residential building was primarily due to lower labour productivity in the commercial sector and that this stemmed from restrictive work practices (Econtech 2003, p. 38). Closing the productivity gap between domestic residential and other construction activity was estimated to produce a gain in the level of real GDP of 1.1 per cent in the long term (about five years) (p. 31).

Unduly restrictive work practices may have dampened labour productivity growth in the building industry. However, given the nature of the reforms to building regulation that are the focus of this study, it is unlikely that they have had any impact on the way workplace relations operate in the building industry. As such, there is also little potential for these reforms to improve productivity in the future through their impact on work practices.

Firm organisation

The building industry in Australia, as in many other countries, is characterised by a large proportion of small firms and use of subcontracting. The increase in the number of firms and contractors over the 1990s may be due both to large construction firms keen to reduce risk and costs and to workers looking to access tax advantages and increase net income by moving to a self-employed status.

The increased fragmentation of the industry suggests that, for the majority of firms, the benefits of increased scale and scope will not be forthcoming. However, productivity gains from specialisation may be available, if workers are becoming increasingly proficient in their niche tasks.

The increasing use of subcontracting appears to be a contentious issue in the industry, with the effects on productivity uncertain. Croce et al. argued that while it may seem advantageous to cut costs by engaging labour on a subcontract basis, it can have the effect of lowering productivity in the longer term (1999, p. 17). They found that smaller firms spent less on training per worker, R&D and capital investment, and that cost pressures were additionally putting pressure on safety and job satisfaction. Interested parties also suggested that increased subcontracting had reduced levels of supervision on work sites, potentially contributing to lower productivity through an increase in the amount of rework required.

Good managerial practices are important for building industry productivity. In case studies undertaken by Croce et al., a realistic, well thought out and planned construction program was considered to be one of the factors that improved productivity, as it allows different trades to follow each other quickly onto a site, avoids delays due to rework, and helps create a safe working environment (1999, p. 23). In its 1999 report to Government, NatBACC also suggested a greater use of business alliances and supply chains would help the building industry to deliver more innovative, high quality, cost-efficient building outcomes (p. 13).

Regulatory reform initiatives under the ABCB are likely to have their biggest impact on firms through increased levels of flexibility and lower costs. The Queensland Government stated that reform of building regulation had reduced industry compliance costs, thereby reducing capital construction costs and improving productivity (sub. 41, p. 4).

For larger firms, regulatory changes may allow greater scale and resultant gains from standardisation of processes and products. In particular, performance-based standards may enable managers to achieve a more efficient and effective work site, through the use of new materials or streamlined methods. Interested parties also stressed the importance of nationally consistent regulation in achieving efficiencies in production. The HIA commented:

The principles underlying the production of buildings are similar to other forms of production, in that efficiencies may be derived from standardisation of process and minimising design variations during the manufacture of the product. The application of these principles is, in part, responsible for the current levels of efficiency inherent within the project home market. It will be near impossible for the industry to become more efficient and continue to maintain cost-effective built products while building regulation systems differ from State to State. (sub. 6, p. 10)

The MBA also supported the need for nationally consistent building codes, standards and regulatory systems, saying this approach had created significant economies of scale and benefits (sub. 24, p. 2). The Association of Consulting Engineers Australia (ACEA) commented that a lack of consistency had led to major inefficiencies for most ACEA firms, in terms of the time and costs required to apply different codes and standards to the design of buildings (sub. 46, p. 2).

Technology uptake and innovativeness

The use of new technologies and innovations is seen as very important to the building industry's productivity. Both the HIA and PCA commented that modest technological advances are a likely contributor to productivity growth in the building sector (sub. 6, p. 13; sub. 52, p. 25) and a significant proportion of

respondents to the Commission's survey agreed that performance-based regulation and private certification had encouraged greater innovation and use of new technology. Case studies undertaken by Croce et al (1999) found both managers and contractors believed new technology had a positive impact on productivity:

The use of prefabricated sections incorporating an insulating coat that yielded better insulation characteristics was cited as an example of leading edge technology producing better building materials and components. (p. 91)

They alluded to examples such as cordless tools that minimised accidents via a cleaner and tidier work site, prefabricated concrete sections that improved erection of walls etc, scissor lifts, which eliminate the construction of scaffolding for minor work at height. (p. 96)

A 2002 PWC report for the Australian Government Department of Industry, Tourism and Resources on the Australian building and construction industry⁸, showed:

- Competitors, clients and suppliers were the most important drivers of innovation, leading the authors to conclude that 'the most important external driver of innovation in the Australian building and construction industry by any measure is sustainable demand for innovation' (p. 6);
- Perceived risk was the greatest inhibitor to innovation (p. 6);
- Governments were seen as an important actor in the innovation process, through their actions as a major client (demanding innovation), regulator (encouraging or inhibiting innovation), educator (showcasing innovation) and custodian (creating a favourable business environment for innovation) (p. 7);
- Residential building, building materials and architectural services were the most innovative sectors, in terms of the average number of technological and process innovations commercialised in a year (p. 20);
- Innovations spanned a range of areas — products and services (for example, prefabrication), technology and processes (such as greater use of web enabled project management methods), and management strategies (for example, strategic alliances between clients and contractors) (p. 39).

However, the report found that the industry was slower to innovate than its overseas counterparts (p. 46). The report suggested that non-uniformity of regulations within and across governments was a key issue affecting innovation in the industry (p. 38). This is a particularly important point when considering the costs and benefits of

⁸ The report used a broadened definition of the building and construction industry, including architectural services, consulting engineering services, professional business services and the property sector within its brief.

greater levels of uniformity of the technical and administrative regulation of building.

Engineers Australia also suggested that client attitudes are an essential part of promoting innovation. It noted, however, that clients seem to prefer proven products and are focused on price, and developers focus on core activities and do not invest in technological change. Engineers Australia submitted:

Clients need to understand the benefits that can be gained from the development of improved technical performance and the use of innovative products. The use of innovative products may increase costs in the construction phase, but can often provide greater benefits in the long term by minimising whole of life costs. (sub. DR61, p. 2)

Following on from the PWC report, the Cooperative Research Centre (CRC) for Construction Innovation⁹ has been undertaking ‘The Brite Project’ — a series of case studies of industry innovation and a two-yearly full scale innovation survey expanding on the PWC pilot survey. Six case studies have been published and the results of the first survey are to be published in November 2004.¹⁰

The case studies clearly illustrate the cost savings and potential firm performance and productivity improvements associated with innovative solutions. For example, use of unprotected steel in the structure of the National Gallery of Victoria — Australian Art Building, reduced construction costs by 4–5 per cent.¹¹ A steel alternative to the intended concrete and masonry design was desired and, to maintain cost estimates and project timing, unprotected steel (not covered with fire protective coating) was chosen. As an ‘alternative solution’ to the BCA requirements, the performance of the steel was demonstrated to meet requirements through the application of fire science and engineering. The solution saved approximately \$3 million in construction costs and several thousand dollars per year in ongoing maintenance costs. It also made the building site easier to access due to a lesser need for temporary structural supports (saving an additional \$1 million), enabled the use of smaller cranes and provided more effective use of space in the building itself.

⁹ The CRC for Construction Innovation (established in 2001) is a national research, development and implementation centre focused on the needs of the property, design, construction and facility management sectors. It is developing key technologies, tools and management systems to improve the effectiveness of the construction industry. Over a seven-year period, funding for the project will include \$14 million from the Commonwealth Government and \$50 million in industry, research and other government funding. (See <http://www.buildingcommission.com.au/www/default.asp?casid=3811> (accessed 28 June 2004).)

¹⁰ See <http://www.brite.crcci.info/> (accessed 1 July 2004).

¹¹ See http://www.brite.crcci.info/case_studies/pdfs/brite_innovation_case_studies_2004.pdf pp. 21–24 (accessed 1 July 2004).

On a smaller scale, a new method of manufacturing concrete planks and connecting them to supporting steel beams generated estimated savings of \$330 000 for the Suncorp Stadium project in Brisbane.¹² The performance of the planks had not been assessed by the ABCB or available research, so full-scale prototype testing was undertaken to verify the accuracy of the designs and the structural efficiency of the planks. Savings in steelwork and crack repairs generated the immediate monetary savings, but benefits were also identified in terms of: a less congested site; reduced use of on-site labour leading to a lower probability of industrial action taking place; better work flow; and easier quality control.

The Brite Project case studies accord with the findings of the 2000 KPMG impact assessment of ABCB reform activities (see box 4.2). KPMG found savings of 1–5 per cent of overall building costs flowed from performance-based design, through more efficient and flexible design and construction (2000, pp. 18–19). The KPMG report also suggested private certification and changes to liability arrangements had encouraged innovation by altering the costs and benefits to firms and certifiers of approving alternative solutions:

The ongoing involvement and interactive relationship between designers and certifiers has provided much greater design flexibility. When certification responsibility rested with councils, designers were loathe to seek variations unless absolutely necessary because of the timing implications of repeated passes through the approval system. (p. 22)

In the past councils, by virtue of their de facto liability, were inclined to be conservative which had the effect of discouraging innovative design. (p. 23)

Interested parties also pointed to the innovation benefits of some ABCB reforms. The National Fire Industry Association commented on the benefits of the performance-based BCA, saying it:

... provides opportunity for innovation and for competition to take place within performance based requirements. This approach does engender constant debate and discussion on the appropriateness of some solutions, and this adds to the sum of knowledge available to the community in Australia. (sub. 3, p. 2)

Engineers Australia commented that the performance-based Code ‘provides a means of achieving more innovative building solutions to a large degree’ (sub. DR61, p. 2). It suggested the ABCB could further promote innovation, by:

... investigating ways to provide a regulatory environment that introduces incentives for clients to accept innovation in products and services. This can also be achieved by educational activities for participants in the building industry.

12 See http://www.brite.crcci.info/case_studies/pdfs/brite_innovation_case_studies_2004.pdf pp. 11–13 (accessed 1 July 2004).

... The Board's activities could include further development of regulatory structures and standards that promote an environment of technological competition. (sub. DR61, p. 2)

Overall, the results of studies into innovation in the building industry suggest that innovation has contributed positively to the building industry's productivity performance, but that there is scope for further improvement. In addition, the innovation channel to productivity may be one of the most important ways regulatory reform can contribute to building industry productivity, by increasing demand for alternative building solutions and creating greater certainty through nationally consistent technical and administrative regulatory requirements.

Box 4.2 KPMG impact assessment

As part of the review of the ABCB in 2000, KPMG undertook an impact assessment of five building initiatives: the performance-based Code (BCA96); the ABCB's economic evaluation system for regulatory proposals; private certification; liability reform; and national product certification. Fifteen case studies of important construction projects were used to assess impacts, including the Docklands Stadium in Melbourne, the Star City Casino in Sydney and the Brisbane Convention and Exhibition Centre. Of the five initiatives, the performance-based Code was seen to be the most significant, with cost savings of between 1–5 per cent of building costs.

The information gathered by KPMG suggests private certification has also had productivity enhancing effects. The KPMG report indicated that private certification had benefited the industry by accelerating the approval process (so saving on costs, including financing) (p. 21). Estimates of time savings differed, with some participants suggesting 3–4 month delays were avoided, although others believed time savings were not significant as elapsed time was previously used productively by 'juggling' other construction tasks (p. 21). Private certification also:

- reduced costly remedial action, as certifiers were able to work more closely with design teams and provide advice on their plans (p. 22); and
- increased the number of certifiers and their responsiveness to demand (p. 22).

Changes to liability arrangements may also have had productivity enhancing effects, by supporting innovative design.

National product certification was viewed as a potentially powerful tool, but its delivery mechanism was seen as problematic, stifling the potential benefits (p. 24).

Most participants in the KPMG study were unaware of the details or purpose of the ABCB's economic evaluation model (p. 3). Nevertheless, it may have positive productivity effects, if it succeeds in promoting the best regulatory solutions.

Source: KPMG (2000).

Research and development

It appears that the amount of R&D taking place in the building sector is low. NatBACC raised concerns that only a small number of firms (excluding building materials and product manufacturers) were undertaking R&D within the building and construction industry (p. 7). NatBACC believed it was imperative to get a better industry interface with R&D providers such as CSIRO to increase innovation in the industry and recommended support for a marketing campaign that raised awareness of innovation and R&D programs (pp. 7–8). It also recommended support of initiatives that raised awareness of innovation as a driver of productivity (p. 8).

Following that report, a study gauging market awareness of R&D programs was undertaken, which found a lack of awareness and interest in R&D:

Generally industry is not receptive but there are pockets that are quite active. The industry is generally not aware of what R&D can do for their companies. Industry competes on price and to some extent quality — innovation and R&D is not on their agenda. (Andrews Marketing Group 2000, p. 14)

The study found that only half of the industry and professional associations surveyed were aware of R&D and innovation support programs, with no awareness on the part of construction companies or suppliers (2000, p. 1). The authors suggested industry associations were the best way to effectively reach industry members to spread knowledge of the available support programs.

However, the low level of R&D spending may not accurately reflect the innovativeness of the building industry. NatBACC suggested that the figures understated the broader commitment to innovation within the industry, given the process and product innovations taking place in supplier industries such as manufacturing (1999, p. 7). Over the period 1986-87 to 1996-97, the level of R&D expenditure in the manufacturing sector more than doubled (PC 1999c, p. 175), and Building Products Innovation Council (BPIC) noted that its members spend up to \$2.2 billion annually on research (sub. 23, p. 76). In addition, the PWC report found that there was no correlation between the percentage of annual turnover spent on R&D and the ‘innovativeness’ of an organisation (2002, p. 29). New ideas can emerge from other sources and there may be no need to carry out R&D inhouse.

It is likely that the nature of firms in the building industry — generally small and dispersed — decreases the likelihood that individual firms can mount significant R&D campaigns or appropriate the full benefits of the R&D that they undertake. Left to firm initiatives, there is likely to be underperformance of R&D. As such, R&D is more likely to be successfully undertaken by industry associations or government bodies pooling funds, such as the ABCB’s research program and the CRC for Construction Innovation.

Tax laws may also impact on decisions to invest in R&D. A 1998 report for the then Australian Government Department of Industry, Science and Resources suggested that the inability of the Fire Code Reform Centre to gain agreement with the Australian Tax Office that funding contributions from industry could be regarded as eligible expenditure to gain the R&D tax concession of 125 per cent significantly reduced the preparedness of industry to contribute (Technical Resources 1998, p. 13).

The ABCB related reforms have the potential to make a contribution in this area, particularly through its sponsored R&D projects and general awareness-raising efforts (the effectiveness of the ABCB's research activity is discussed further in chapter 9).

Also, the introduction of the performance-based Code may be expected to have encouraged more research into building products and systems, as part of developing new building solutions, and to have encouraged the uptake of new technology. To the extent R&D has contributed to the productivity performance of the building industry, the ABCB-related reforms could have had a positive influence on growth. This effect may be expected to continue.

Information technology

Information and communications technology has been an important part of the productivity story in Australia in the 1990s. In the construction sector, IT capital deepening accounted for a quarter of labour productivity growth from 1993-94 to 1998-99, which was somewhat below the contribution of IT capital deepening to labour productivity in the market sector (a contribution of one third) (Gretton et al. 2003, table 4, p. 10; PC 2004e, p. 53). The IT capital deepening in the construction sector offset slower growth in other forms of capital — positive IT capital deepening (0.6 percentage points) outweighed negative other-capital deepening (-0.5 percentage points) (Gretton et al. 2003, table 4, p. 10).

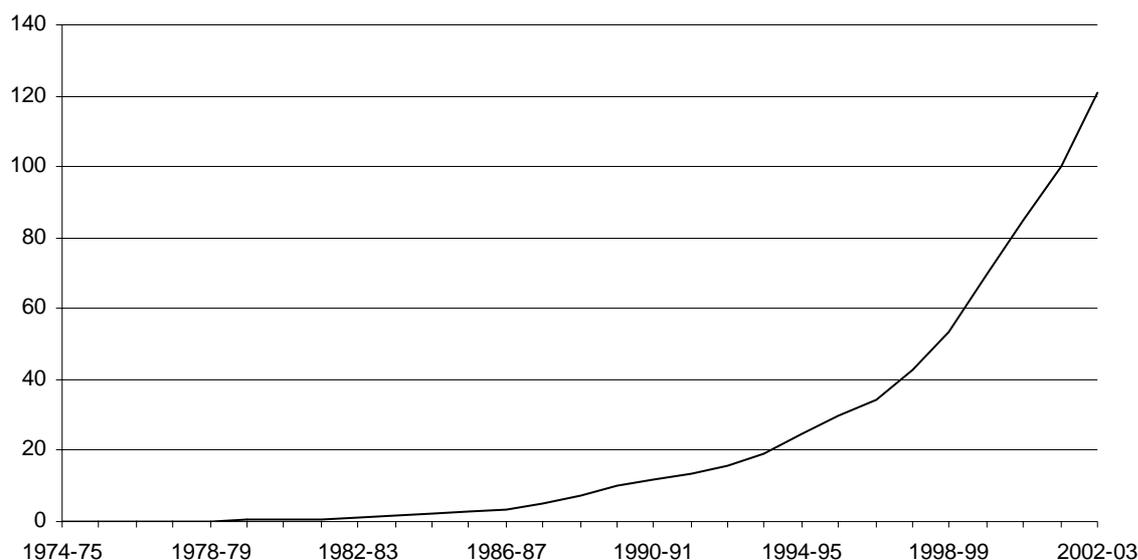
Figure 4.6 below shows the strong take-off of ICT capital services in the construction sector, with particularly strong growth from the late 1990s.

There is a possible association between the uplift in ICT use and the MFP growth in the construction industry. Estimations found a potential contribution of ICTs to annual MFP growth of up to 0.25 percentage points (PC 2004e, p. 63). Computer use had a positive and statistically significant influence on labour productivity growth in the construction sector (Gretton et al. 2003).

NatBACC's 1999 report to Government suggested that emerging information technologies were vitally important to the building and construction industry, but

that uptake was slow. The Committee believed under-utilisation of information technology resources was a major issue confronting the industry as the use of electronic tendering and procurement, e-commerce and virtual project teams increased (1999, p. 9).

Figure 4.6 ICT capital services for the construction sector
Index 2001-02 = 100



Data source: Productivity Commission estimates based on ABS data.

Nevertheless, research undertaken for the Victorian Building Commission in 2003 found that 94 per cent of Registered Building Practitioners (RBPs) used computers in their business activities.¹³ While the most common use of computers was for accounting, book-keeping and billing purposes, the use of information technology by RBPs was more widespread. Eighty-three per cent used email for communication purposes and 81 per cent accessed business-related information online. Other uses included project management (56 per cent), access to professional development information (54 per cent), procurement (42 per cent) and resource management (40 per cent). Computer use was highest among younger RBPs, but was consistently high across RBPs in all age categories up to and including 50 to 59 year olds. More than 70 per cent of 50 to 59 year olds used email and online information.

The Building Commission noted that these findings were consistent with data published by the ABS showing that the proportion of construction industry

13 See <http://www.buildingcommission.com.au/www/default.asp?casid=3812> (accessed 28 June 2004).

businesses with computers was up from 68 per cent in 2000 to 81 per cent in 2002. Internet access was up from 46 per cent to 63 per cent over the same period.

In a study of the characteristics of firms using computers, it was found that across industries (including construction), firm size (by employment), the level of educational qualification of the major decision maker, the average wage of employees (a measure of human capital), the propensity to use advanced business practices (such as budget forecasting) and firm restructuring were positively related to the use of computers and adoption of the internet (Gretton et al 2003).

It appears that ICT use is having a significant impact on the building industry and its productivity performance. This may be a partial explanation of the productivity turnaround in the 1990s. The ABCB-related reforms may have contributed to this by providing increased levels of flexibility that encourage firms to explore different forms of project management.

Regulatory reform — summing up

Overall, responses to the Commission’s survey of building surveyors, comments and evidence from other interested parties and research studies, suggest that regulatory reforms implemented or overseen by the ABCB have had their biggest impact on industry performance by encouraging skill acquisition, reducing costs and encouraging and enabling innovation. While not able to be quantified, the evidence points to a positive productivity impact of regulatory reforms.

This is supported by comments from interested parties. For example, the Tasmanian Building Regulatory Advisory Committee believed that reform of building regulation had positively affected the transportability of materials, design, construction methods, building practitioners and skilled workers (sub. 29, p. 3). The Committee also suggested there had been a reduction in red tape, with a marked reduction in the number of references to the Building Appeal Board for a variation to the regulations (sub. 29, p. 3).

It is also consistent with the impact analysis prepared for the ABCB in 2000, which found that industry participants considered the ABCB to have made a substantial contribution to the construction sector, with significant economic benefits arising from the introduction of the performance-based Code in particular (KPMG 2000, p. 6). As well as cost savings, the performance-based Code was thought to have had a number of other productivity enhancing effects, including:

- more extensive collaboration between parties involved in the design and construction process, so more effectively utilising their skills to generate innovative solutions;

-
- accommodation of the evolution of more sophisticated materials and technologies; and
 - reductions in the time and cost involved in obtaining performance-based certification, relative to the former procedures (pp. 19–20).

Regulatory reform in the building industry is likely to have facilitated productivity improvements in the industry, by allowing firms to take up and adapt new technologies at a faster rate than would have occurred without the flexibility, knowledge and support of reforms such as performance-based standards, private certification, liability reforms and ABCB research activities.

However, additional productivity gains could be made through further reforms or activities within the building industry. The following chapters provide discussion of a number of potential issues where the ABCB or a similar body could drive or guide regulatory changes within the industry. Some of the issues, a number of which also emerged in the 2000 KPMG report, include: further reductions in variations in building regulations across jurisdictions, improvements to the performance-based Code, such as more explicit measurable guidelines or objectives; and better certification systems, including cross-jurisdiction recognition of accreditation of certifiers, improved certifier education levels and more effective liability arrangements.

FINDING 4.2

The influences on productivity in the building sector are varied, including labour force skills, workplace relations, firm organisation, economies of scale, research and development, technology uptake, innovation and information technology. It is difficult to quantify the separate contribution each has made to industry performance and productivity growth.

FINDING 4.3

The regulatory reforms implemented or overseen by the ABCB appear to have had a positive impact on industry productivity. Their impact appears to have been mainly through encouraging skill acquisition, reducing costs and encouraging and enabling innovation. There is scope for further productivity gains from additional reforms.

4.4 Impact on economic efficiency

The productivity and performance of the building industry has important flow-on effects to the rest of the economy. Buildings are a major input to economic activity

— factories, office buildings, shopping malls and the like are the centres of production and supply and the quality and cost of these buildings will significantly influence the performance of firms operating within them.

Indeed, the HIA suggested that Australia's aggregate productivity performance has been positively influenced by the building sector:

Given the very significant share of the Australian economy accounted for by the building sector it is reasonable to assume that enhanced flexibility in the building sector brought about through building regulation reform was a contributor to Australia's relatively strong aggregate productivity performance. (sub. 6, p. 13)

The question for this section is whether the regulatory changes made under the auspices of the ABCB have had a positive effect on economic efficiency in Australia. In particular, this section looks at the building products sector, the professional services sector, the impacts on owners of buildings and the potential for future efficiency improvements.

Building products

One of the key industries linked to the building and construction sector is the building products manufacturing sector. Products including timber, steel, glass, windows, bricks, cement, plasterboard and insulation form major inputs into building processes and are also an important export earner (see appendix E).

Regulation in the building sector can have a big impact on the manufacturing sector, both in terms of the way in which current products are manufactured and in terms of the demand for new and innovative products. At the same time, better quality products can create the potential for improvements in the performance of the building sector and encourage updating of technical regulations to reflect modern building practices.

The performance-based Code has had a positive impact on the building product sector. KPMG found that the Code created greater flexibility to accommodate new building products and materials, which 'drove value engineering down the supply chain by encouraging innovation within building supply companies' (2000, p. 2). It also allowed the evolution of more sophisticated materials and technologies. However, KPMG's case studies suggested there was scope for further improvement, as many suppliers were not responding quickly enough:

Many suppliers (eg: glass, plasterboard etc) fail to understand that product performance requirements increasingly deviate from historical standards and that there is a need for industry to become more responsive through innovation. As an example, a design may call for particle board with a nominated fire retardant index, yet the supplier may

provide board to traditional ASA standards with the result that remediation may be required after installation to remedy the performance shortfall. Increased awareness among suppliers is vital to ensure that performance-based-building delivers to designers' standards. (2000, p. 25)

Interested parties consider nationally consistent regulation is vital for building product manufacturing companies. BPIC stated that regulatory variations and uncertainties limit the size of the potential market, reduce hiring intentions, reduce willingness to invest in innovation and R&D and increase uncertainty over capital expenditure plans (sub. 23, p. 27). It concluded:

The consistency of national building regulations and the removal of State, Territory and municipal differences are essential to the Australian community and ongoing productivity, efficiency and effectiveness. (sub. 23, p. 28)

BPIC also believed the implementation of an effective national certification system was essential to reduce delays in obtaining recognition of new and innovative products (sub. 23, p. 32).

Professional services

There are a number of professional service providers that have close connections with the building industry and who are directly affected by the regulations applying to buildings. The activities of architects, engineers, designers, property managers and building maintenance providers are all guided, to some extent, by the requirements set out in the Code and the accompanying administrative rules.

Nationally consistent regulations have brought direct benefits to providers of professional services involved in the building industry. For example, architects need only become familiar with one set of technical regulations in order to produce compliant designs for the whole country. This lowers training costs and improves the mobility of professionals within Australia. Head office functions may be able to be consolidated into one location and the payoff to innovative ideas may be larger as professionals take advantage of a larger market.

Private certification has enabled designers and architects to have greater interaction with the building team, leading to greater design flexibility and an improved understanding of the building requirements (KPMG 2000, p. 22).

Building owners

There is evidence that the performance-based Code has brought a number of benefits to building owners and end users. Case study information suggests that the use of alternative solutions under the Code can:

- better meet the requirements of building owners and users, provide improved building functionality and allow more efficient and effective use of the building space;
- increase the availability of useable or lettable space in a building;
- reduce recurrent maintenance and inspection costs; and
- retain desirable heritage aspects of buildings (KPMG 2000).

Safety may also have been improved through the introduction of performance-based standards. KPMG found the use of situation specific modelling under the Code could lead to a higher level of ‘life safety’ (2000, p. 18). For example, at the Sydney City Casino, computer modelling and on-site validation were used to upgrade the fire safety performance of the building:

... the original theatre design would have been approved under deemed to satisfy requirements of the BCA as it complied with the requirements specified therein. However the design did not meet the more stringent project’s performance based benchmark. Accordingly more fire resistant materials were engineered into the floor and walls until the project benchmark was met. (KPMG 2000, pp. 41–2).

Cost savings associated with the use of alternative solutions can be passed on to end users. Design enhancements at a new Westfield shopping mall saw leasing costs drop to retailers, with consumers potentially the ultimate beneficiaries (KPMG 2000, p. 44).

Arup Fire pointed to the benefits of national performance standards, including the ability to develop specific fire safety solutions to suit particular businesses, such as processing factories, and the ability for a company to roll out a single model for fire safety nationwide, allowing savings in capital expenditure, maintenance and staff training (sub. 15, p. 6).

However, the Insurance Council of Australia suggested that, while the performance-based Code may be delivering productivity improvements via a decrease in construction costs, there may be increased costs and loss of productivity in other areas. The Council pointed to a number of areas where alternative solutions might increase maintenance requirements, including more regular testing and inspection of critical fire safety measures, more costly inspections of fire equipment due to access difficulties, and increased replacement rates of equipment (sub. 38, p. 7). However,

this view was disputed by Arup Fire. Arup stated that, under the BCA96, there has been an overall change in fire safety strategy, from traditional fire safety containment to more utilisation of active measures such as sprinklers, which is reflected in the deemed-to-satisfy provisions (sub. DR88, p. 7). As such, use of deemed-to-satisfy provisions may also increase maintenance costs. Arup Fire also noted that access difficulties relating to equipment maintenance have always been present (sub. DR88, p. 7). This issue is discussed in chapter 5.

KPMG (2000) noted that the performance-based BCA led to increased costs of building survey, engineering and design, as parties spent more time looking for creative solutions. KPMG also pointed to the increasing burden on surveyors, engineers and designers to be appropriately competent to assess the range of materials and technologies being used under the BCA (p. 20).

Overall, the regulatory reforms in the building sector have had positive effects on economic efficiency. While, in some cases, reforms may have simply ‘shifted’ cost burdens from one sector to another, in most cases they are likely to have had a net benefit.

5 Building Code of Australia

The BCA, as the primary regulatory instrument, is the mechanism through which the ABCB pursues a number of its objectives. In particular, objectives one, two and six are directly relevant to the Code:

- 1) Establish codes, standards and regulatory systems that are, as far as practicable:
 - consistent between states and territories;
 - cost-effective;
 - performance based; and
 - based on modern and efficient building practices.
- 2) Base building requirements on minimum, least-cost solutions which address the regulatory objectives of safety, health and amenity.
- 6) Simplify the wording of building requirements to achieve user friendliness and plain language style.

Further, the mission statement of the ABCB (also contained in the IGA) gives some additional objectives to be pursued through the BCA:

To provide for efficiency and cost effectiveness in meeting community expectations for health, safety and amenity in the design, construction and use of buildings through the creation of nationally consistent building codes, standards, regulatory building requirements and regulatory systems.

The BCA itself also outlines its goals as being:

... to enable the achievement and maintenance of acceptable standards of structural safety (including from fire), health and amenity for the benefit of the community now and in the future.

These goals are applied so that the BCA extends no further than is necessary in the public interest, is cost effective, easily understood, and is not needlessly onerous in its application. (BCA, vol. 1, p. 29)

In order for the ABCB to deliver net benefits for Australia, it is important that the objectives pursued through the BCA are clear and appropriately focused. This chapter examines and assesses these objectives. Section 5.1 examines the rationales underpinning these objectives and assesses whether or not the objectives are appropriate. To the extent possible, section 5.2 assesses the ABCB's success in achieving these objectives.

5.1 Are the IGA objectives appropriate?

Nationally consistent

The driving force behind the establishment of a national body for building regulation, and the development of a national code, was to promote consistency in building regulation across States and Territories. As noted in chapter 2, moves to generate greater consistency have been underway since the mid 1960s, with an Australian Model Uniform Building Code released in the early 1970s, and technical codes released in 1988, 1990 and 1996.

Benefits of a nationally consistent building code

The establishment of a nationally consistent building code has the potential to bring a number of benefits. Having a common code across Australia could:

- **Reduce costs for builders and designers**, as cross-border construction and design firms do not have to expend resources understanding and complying with a multitude of different standards. In addition, building practitioners may be encouraged to operate in a number of jurisdictions, promoting economies of scale and more efficient building practices.
- **Promote compliance with the building regulations**, as misunderstanding of, and confusion between, codes are reduced.
- **Create a larger market for building products**, as manufacturers of building products would be able to sell the same (code compliant) product in each State and Territory, rather than a firm having to manufacture different products to meet each different code. This promotes cost savings through increased economies of scale in production and through increased competition between manufacturers.
- **Allow transferability of building designs**, as builders, designers and/or consumers can use the same design in different jurisdictions, rather than having to alter designs to meet different requirements in each jurisdiction. This may be of particular benefit to some interstate producers and retailers who wish to have common store or warehouse designs across Australia.
- **Allow transferability of skills**, as practitioners who operate in one State or Territory should generally be automatically able to operate in another without additional training. Skills should be able to be transferred more easily, with attendant benefits in terms of allocation of resources and reduced retraining costs in the industry. In addition, jurisdictions should benefit from having a larger pool of skilled practitioners and access to a wider range of ideas.

-
- **Generate savings in development costs**, as only one code has to be developed. Development of this code may be more expensive initially (than a single State code) as it would have to deal with a wider variety of buildings and environments. Further, some (perhaps considerable) resources may be needed to achieve consensus across jurisdictions. Nevertheless, there remain potential cost savings in developing a single code rather than eight separate State and Territory-based codes. Also, there should be economies of scale in the production of advisory material such as pamphlets, websites and advertising to advise designers, builders and owners of their responsibilities under the Code. And disseminating or selling the Code to practitioners should be cheaper as these functions can be undertaken and organised centrally (by the ABCB), rather than on a jurisdiction by jurisdiction basis.

Participants in this study identified considerable benefits from the adoption of consistent building regulations across Australia. For instance, the Western Australian Government Department of Housing and Works noted that:

The ABCB and BCA have made a marked difference to the efficiency, maintenance and improvement of minimum technical standards, and regulatory approval turnaround times by establishing a national approach to minimum construction standards, instead of perpetuating a proliferation of jurisdictional, idiosyncratic regulatory arrangements.

The current national approach is considered to be very important as it has numerous benefits:

- It promotes interstate and international trade and business expansion;
- It ensures that resources harnessed in developing regulatory provisions are efficiently managed and duplication restricted;
- It promotes open dialogue across all jurisdictions thus generating a pool of regulatory solutions gleaned from the best sources within the nation;
- It is a practical option given that Australia is a relatively small nation, in international terms, consisting of approximately 20 million persons;
- It facilitates the training of industry practitioners without the need to tailor courses of study to meet individual jurisdictional idiosyncrasies;
- It facilitates the mobilisation of expertise throughout the nation such that all regions within the country have access to suitably qualified and experienced regulatory professionals. (sub. 14, p. 3)

Master Builders Australia (MBA) submitted that:

We strongly support the need for nationally consistent building codes, standards and regulatory systems. We believe that this approach has created significant economies of scale and benefits. It has provided certainty to the industry stakeholders ranging from manufacturing, builders, design professions, as well as professional services. For instance, a nationally consistent BCA has allowed for building products to be modularised, it has also allowed for prefabrication, and for these to be transported

across state boundaries. For designers, it has provided nationally consistent design parameters. For builders it has meant that they can work easily across state boundaries and it has also assisted in the development of consistent practices in areas such as occupational health and safety and training. (sub. 24, p. 2)

The Housing Industry Association (HIA) submitted that:

It will be near impossible for the industry to become more efficient and continue to maintain cost-effective built products while building regulation systems differ from state to state. ... Inconsistency in building regulations has a significant cost impact and the community is forced to pay a premium to compensate for the inefficiencies that multiple regulatory regimes produce. (sub. 6, pp. 10-11)

Similarly, the Building Products Innovation Council (BPIC) stated that in the absence of consistency:

... more cost will be imposed on manufacturers as they attempt to address these variations by negotiation, attempt protracted efforts to amend laws, revise product to cater for the regional control or ultimately remove their product from that particular market. These costs will be passed on to the consumer. The spiralling costs in coping with a fragmented Australian system will reduce the consumers' capacity to acquire the latest and most efficient products leading to an erosion in health, safety and amenity standards. (sub. 23, p. 17)

Further, during the Commission's Inquiry on First Home Ownership, BPIC submitted that:

In a BPIC-HIA joint survey of Chief Executives of building product manufacturing companies, respondents identified their cost impact of complying with the State and Territory variations at any where between 1 per cent and 5 per cent of turnover. Even at a conservative 2 per cent cost impact this equates to some \$600m annually on building product manufacturers alone. (BPIC 2003b)

Disadvantages of a national building code

While a uniform national code brings significant benefits, there are situations where uniform building regulations may not adequately meet the needs of all communities. For example, bushfire prone communities may need special building regulations to protect property from the increased danger posed by fires. Similarly, inner-city areas may have different requirements to country areas, especially in relation to matters such as sound insulation or protection from water runoff. As noted by the Master Builders Association of Western Australia, these differences may make achieving a national building code more difficult:

There are currently only a few Western Australian variations to the BCA, but adoption of national uniformity of building regulations is more difficult to implement in our large state (in geographical terms) with significant variation in soil types, construction

methods, climate and so on. Local conditions always need to be taken into account. Failure to do so could lead to the BCA becoming an inflexible document, unrelated to current building practices in certain regions. There are already instances where a BCA provision is out of step with current building practice. Greater uniformity of BCA provisions may be difficult to achieve in such a large country as Australia. (sub. 8, p. 2)

For this reason, imposing identical regulations on *all* areas of Australia is clearly sub-optimal and may impose costs upon the community. This may provide a prima-facie reason for allowing State and Territory variations (in the hope that this will allow the BCA to be more accurately targeted at the needs of various communities).

However, given the size and diversity in building environments of many States, a better approach may be to vary the BCA based on more objective criteria¹, rather than (arbitrary) State boundaries. This approach was adopted in BCA96, where some regulations are tailored to particular geographic areas. For example, in relation to energy efficiency, the BCA applies different regulations to various 'climate zones' across Australia. Warmer climate zones have more emphasis placed on their cooling efficiency, whereas cooler climates have a higher emphasis on heating efficiency. The BCA also has designated areas that require special provisions for buildings, for example, for cyclone and bushfire prone areas, as well as alpine areas. In addition, some performance requirements and deemed-to-satisfy building solutions have clauses that alter building requirements depending on the building environment. For example, the performance requirement for surface water dispersion depends upon the severity of storms in the area, and the deemed-to-satisfy solutions for masonry accessories (in volume 2) depend on wind conditions and proximity to the ocean. In this way, diversity can be accommodated within a national code.

Another difficulty posed by the adoption of a uniform national code is accounting for different expectations in different communities. As the ABCB Chairman noted, this may lead to pressure to vary the BCA:

A major driving force behind the establishment of a uniform national building code was that in its absence, local and State governments in responding to community pressures had taken it upon themselves to develop their own regulations. The chaotic regime that arose was neither efficient nor effective. However, the same community pressures are still present and unless the ABCB remains attuned there will be a risk of governments in different places again providing jurisdictional specific solutions. (sub. 4, p. 21)

¹ Objective criteria would be those that drive the need for variation in regulation and may include factors such as climatic variation, urban density and geological conditions.

To the extent that expectations vary, the adoption of a single national BCA may impose some costs, particularly upon communities where differences in expectations and preferences are greatest. Nevertheless, the BCA only prescribes a minimum standard and individuals within a community are free to construct buildings to a higher standard. To the extent that the community expectation is reflected in the preferences of individuals, a community desire or expectation for a higher level of building performance will be addressed by individuals constructing higher performing buildings. Nevertheless, relying on individuals' preferences prevents the collective enforcement of a higher standard for a community.

One further, albeit possibly less important, disadvantage of uniform regulations across jurisdictions is that it reduces the ability of State and Territory Governments to innovate and develop potentially more efficient regulations. As the Australian Elevator Association (AEA) noted:

National consistency is a double edge sword. There can be circumstances when national non-uniformity (of regulations) between jurisdictions can provide the beginnings of a more effective and efficient result. This can occur when one jurisdiction produces a superior regulation in relation to its competitors. (sub. 44, p. 6)

While state-based experimentation may uncover some more efficient regulations, it may equally result in less efficient regulations in some jurisdictions. In any case, the ABCB undertakes an extensive evaluation and impact analysis that is intended to identify the most efficient form of regulation (and the ABCB has State and Territory representatives, through which good ideas should flow to the ABCB). This should help ensure that the regulations implemented by the ABCB are well based and have been rigorously assessed.

Summing up

There are a number of avenues through which a consistent national building code can bring benefits to Australia. Submissions to this study have suggested that these benefits are indeed significant and worth pursuing. While there are some possible disadvantages to implementing uniform regulations, these can be minimised by specifying various regional zones within the BCA and ensuring that it contains efficient and effective regulations — this is preferable to addressing the same needs with different requirements across jurisdictional boundaries.

Performance based

The Office of Regulation Review (1995a, p. 13) has identified three main types of regulations:

-
- *prescriptive rules* [which] focus on the inputs and processes of an activity, specifying the technical means used in undertaking an activity (as in the mandatory installation of speed limiters or restrictions on vehicle engine capacity);
 - *performance-based rules* [which] specify an outcome in precise terms (as in a speed limit); and
 - *principle-based standards* [which] outline the desired outcomes by specifying the spirit or broad intention of the regulation and require interpretation according to the circumstances (requiring drivers to travel at a speed ‘appropriate to the conditions’ or ‘not in a manner dangerous’).

Historically, the majority of building standards, in Australia and elsewhere, have been prescriptive in nature, codifying a particular way in which a building is to be designed and constructed. However, in the 1980s and 90s several countries began to adopt performance-based building codes in preference to prescriptive regulations.²

In Australia, a major review of building regulations was undertaken by the Building Regulatory Review Task Force in 1991. Following its report, the State, Territory and Australian Governments agreed to the formation of the ABCB with an objective of establishing codes that are ‘as far as practicable ... performance-based’.

Benefits of performance-based regulation

In theory, performance-based regulations have several advantages when compared with the use of prescriptive regulation:

- **Flexibility** — by allowing builders and designers to use any solution that complies with the performance requirement(s), the BCA offers more flexibility than is embodied in prescriptive regulation. (The inclusion in the BCA of deemed-to-satisfy provisions takes the ‘guess work’ out for those who want more certainty, by giving the equivalent of prescriptive regulations.)
- **Innovation** — rather than being constrained to a single prescriptive solution to comply with regulation, practitioners are at liberty to innovate and use any solution that meets the performance requirements.
- **Cost savings** — by allowing choice over which building solution can be used (and still meet regulations), practitioners can choose the cheapest option, thereby reducing the cost of the building. In addition, by allowing the choice of building solution, practitioners can make use of the cheapest solution in any instance, rather than being limited to a single prescriptive solution that may be cost effective in some situations but not in all. By allowing the use of innovative

² Jurisdictions that have adopted performance-based codes include: England and Wales (1985); Scotland (1991); New Zealand (1992); the Netherlands (1992); and Sweden (1994).

solutions and the latest technology, performance-based regulations mitigate the need for innovative solutions to be approved and written into prescriptive regulation before being used.

In practice, the ‘performance-based’³ approach has brought several benefits. A KPMG (2000) study of 15 large scale construction projects found that ‘performance-based’ regulations had led to cost savings in the order of 1–5 per cent. Box 5.1 outlines a number of examples from that study where performance-based regulations have enabled the construction of more innovative and cost-effective buildings. In addition, a number of participants have observed that performance-based regulations offer benefits for the industry and community. For instance, the ABCB Chairman noted that:

Cost savings to developers and the community are generated by:

- the use of alternative or innovative materials and forms of construction or design;
- allowing designs to be tailored to particular buildings;
- providing guidance in a clear manner on what the BCA is trying to achieve; and
- allowing designers flexibility. (sub. 4, p. 10)

Similarly, Arup Fire submitted that performance-based regulations have brought significant benefits in areas related to fire safety:

The ability for designers to have differing approaches to fire safety and integrate fire safety features in the construction of buildings has not only saved money, but also allowed more freedom in the design of buildings. ... Examples are:

- Allows the design and construction of efficient cost effective buildings that satisfy life safety objectives of the Code. ...
- Small and medium sized projects such as low rise office buildings, processing factories and warehouses having fire safety solutions developed specifically to address their business operations. These solutions may often be used in differing States to allow consistency in building construction and operating costs. ...
- Buildings designed under a performance based approach may often have detailed fire brigade intervention assessments carried out, an aspect that is not required to be addressed in detail for a building designed to the prescriptive requirements. A detailed assessment of fire brigade intervention will always provide improvements for access and facilities for fire fighters over one designed to the prescriptive requirements. (sub. 15, p. 6)

³ Implementation of performance-based regulations was the intention of the IGA. However, as discussed in section 5.2, the present BCA actually represents more of a ‘principle-based’ approach. The two approaches have similar benefits (with ‘principle-based’ regulations offering greater levels of flexibility). However, principle-based regulations may be associated with some additional difficulties.

Box 5.1 **The Code in practice**

The use of alternative solutions offers designers and builders greater flexibility and the potential to produce innovative and cost-saving designs. A KPMG report into the impact of the BCA96 included a number of case studies of particular commercial construction projects. These studies indicated that the performance-based approach of the Code had encouraged the use of modern and efficient building practices and significantly reduced construction costs. Some examples are discussed below.

Federation Square

Federation Square is an arts centre in central Melbourne comprising a number of theatre, gallery, retail and production spaces. The building stands five stories high and has a structural deck spanning the Jolimont Railway Yards. KPMG found that the building could not have been constructed using deemed-to-satisfy provisions and that performance-based evaluation had allowed the construction of a final deck design that was:

... more flexible than it would have otherwise have been. For example the owners could, if they wished, add a mezzanine floor with relatively little additional re-enforcement. Similarly the size of the supporting members is smaller and the required positioning more flexible, relative to the initial proposition, with the result that there is greater flexibility in terms of internal design and a greater amount of useable space. (2000, p. 47)

Further, the cost of the design was estimated to be around \$18 million cheaper to construct than an earlier design. Overall the building 'significantly benefited in both design flexibility and cost efficiencies by the effective use of the performance requirements of the BCA' (KPMG 2000, pp. 46–47).

State Library of Victoria

The redevelopment of the State Library of Victoria was undertaken over eight years and a number of building codes. The renovation was completed under the BCA96 and performance-based solutions were used in many areas as compliance with deemed-to-satisfy provisions would not have provided the level of functionality sought by the end users.

A key desire of the project was to preserve heritage aspects of the building while still maintaining adequate levels of public safety. The alternative solution allowed a reduction in the number of fire stairs and the level of fire compartmentalisation but maintained 'much of the old materials such as glass, frameworks and balustrades'. Overall, a performance-based assessment showed:

It was possible to conform with heritage requirements ... [as] the fire strategy report showed that the use of early detection systems and carefully placed sprinklers gave the necessary protection. (KPMG 2000, p. 38)

Further, the use of alternative materials and the preservation of existing structures resulted in estimated cost savings of around \$2 to \$3 million.

(continued next page)

Box 5.1 (continued)

Westfield Hornsby Shopping Centre

Westfield's Hornsby Shopping Centre is typical of large suburban malls, which comprise large retail areas, cinemas and parking spaces. During the design phase, Westfield undertook 'purpose specific modelling studies' to confirm egress times and optimise designs. The use of modelling and performance-based designs has allowed cost savings in a number of areas:

- Fire ratings for floor slabs were reduced from three hours to two;
- Fire ratings for parking spaces were reduced from four hours (under deemed-to-satisfy provisions) to one and a half hours; and
- The number of fire stairs and emergency exits required was reduced significantly.

The KPMG study reported that:

Because of these design simplifications, savings to the overall structure (excluding services) approximate 0.75% to 1% according to calculations by Westfield. In addition, services savings of approximately half a percent have been achieved and leaseable retail space has been increased by 1,000 square metres. In overall terms, Westfield assess the saving to be in the range of 3-4 percent of overall project costs. (KPMG 2000, p. 44)

In addition, Westfield believed that the alternative solutions had also resulted in some savings in maintenance costs. And the KPMG study reported that stakeholders believed that the performance-based approach had brought benefits:

According to respondents, all stakeholders benefit from design enhancements and cost production leasing costs drop with resultant savings to retailers and ultimately to consumers. Fire safety is enhanced (in their opinion) by purpose specific modelling. (KPMG 2000, p. 44)

Source: KPMG 2000.

Further, responses to a survey of building surveyors undertaken by the Productivity Commission (see box 5.2) suggest that industry practitioners consider that the introduction of performance-based regulations has resulted in a number of benefits. In particular, they consider that it has encouraged greater innovation, the use of new technology, cost savings, upskilling in the industry and the introduction of new and cheaper building solutions. Overall, 80 per cent of respondents considered that the introduction of performance-based regulation has had a positive impact on the overall performance of the industry.

Box 5.2 Survey results — performance-based regulation

As part of the analysis of the impacts of building reform, the Commission conducted a survey of building surveyors (see appendix F for a description and full results). One section of this survey was aimed at assessing the impact of performance-based regulations.

A number of positive outcomes

The majority of respondents agreed that performance-based regulation had:

- encouraged greater innovation in planning and building (80 per cent agreement)
- allowed cost savings (80 per cent)
- encouraged parts of the industry to upskill (75 per cent)
- allowed greater design freedom leading to new and cheaper building solutions (73 per cent)
- encouraged the use of new technology (70 per cent).

But some negatives

Sixty-four per cent of respondents disagreed with the statement that performance-based regulation had reduced building maintenance costs. Further, just over half of the respondents disagreed with the statement that the performance-based reforms had resulted in improved building quality. (Issues relating to the interpretation of these results are discussed in appendix F.)

In addition, just under four-fifths of respondents indicated that there had been some adverse outcomes resulting from the introduction of performance-based requirements. The most common issue raised related to reductions in fire safety, where certain alternative solutions have resulted in the removal of some life safety and property protection components of buildings (in order to save cost). As a result, many respondents commented that alternative solutions have placed greater reliance on the maintenance of essential/fire services. Some respondents also expressed concern that alternative solutions are sometimes used to justify errors in construction.

Overall

Respondents were asked whether, on balance, the introduction of performance-based regulation had been beneficial or harmful to the overall performance of the industry. Eighty per cent of respondents considered that it has had a positive impact on performance. Only 16 per cent of respondents considered that it has had a negative impact.

Source: PC Building Survey 2004.

Disadvantages of performance-based regulation

While performance-based regulations can bring significant benefits, there are some disadvantages associated with their implementation and use, including:

- increased difficulties in assessing compliance with the regulations
- the possibility of increased life-cycle costs.

Assessing compliance with performance-based regulations

Judging compliance with prescriptive regulations (and the deemed-to-satisfy solutions), is relatively straight-forward, requiring certification that the building is built to strict and clear-cut criteria (which can be assessed in a ‘tick box’ fashion). However, assessment against performance requirements is more demanding — it necessitates assessing how a building and its various features will perform and whether this level of performance meets the criteria. As noted by submissions to this study, this level of assessment is likely to require specialist skills and expertise on the part of designers and certifiers. For example, the Western Australian Government Department of Housing and Works submitted that:

Prescriptive standards (such as traditional building by-laws and the “deemed to satisfy” provisions in the BCA) allow an untutored person to prepare a design, and for that design to be checked against the prescribed standards by, say, a local authority building surveyor. In such a model it is conceivable that a single person, or a single profession (building surveyor) can master the prescribed standards and check all aspects of a building.

Performance standards mean the designer must have a strong understanding of the principles underlying the standard, and in effect restrict design to professionally trained people (architects, engineers, and the like). Equally, checking the validity of a design against a performance standard requires the same sort of professional knowledge as the designer needs. For a complex building it is inconceivable that a single person or a single profession is capable of checking all aspects of a building against all performance standards. (sub. 14, p. 5)

And Arup Fire noted that:

Fire safety engineering is a combination of fire science and building engineering and requires practitioners to understand a significant amount of detail and concepts related to fire development, smoke control, human behaviour and building engineering. Those approving solutions should also have the same level of training and experience as those practitioners carrying out designs. (sub. 15, p. 3)

The difficulties associated with assessing compliance under performance-based regulations may increase building costs and may increase uncertainty regarding what is required to comply with the regulations. While, to some extent, these are

inherent in the use of performance-based regulations, the present (more principle-based) structure of the BCA may exacerbate these difficulties (see section 5.2). Nevertheless, the inclusion of deemed-to-satisfy solutions in the BCA should alleviate these difficulties by allowing practitioners to use the equivalent of prescriptive regulations where the costs associated with proving compliance of an alternative solution are too great.

Increased life-cycle costs?

The greater flexibility in the design of buildings afforded by performance-based regulations, allows various tradeoffs to be made between construction and use costs. The use of alternative solutions may result in a higher (or lower) level of life-cycle costs for the owner or occupiers, depending on the tradeoffs made. The areas where these tradeoffs can be made include:

- maintenance costs, where decisions by designers or builders impact on the amount of maintenance that owners or occupiers have to complete in order to keep the building in working order;
- where design attributes impact on the safety of building users and staff maintaining the building. This can affect the occupational health and safety requirements of employers and insurance costs;
- the levels of consumption of energy or water by occupants of the building; and
- the ways in which the building can be used or occupied, where decisions made at the design phase may specify or restrict how space in the building can be used, such as requiring certain areas of the building to be left vacant (in order to facilitate egress in the event of a fire).

In general, construction costs are upfront while operation and maintenance costs are ongoing for the life of the building and are not always apparent to all parties. Upfront savings made by developers and builders may result in larger costs being incurred by owners and occupiers of a building throughout its life. (Of course, the builder or developer may choose a design that embodies lower life-cycle costs, but this is unlikely to be a problem as it will be in the developer's interests to fully inform prospective owners or occupiers of these lower costs.)

To some extent, the issue of life-cycle costs should be addressed by the owner or builder during the design and construction of the building. As noted by the Insurance Council of Australia (ICA), if the owners are fully informed, they should be able to assess upfront savings and life-cycle costs, and find the balance that best meets their needs:

Property owners do not expect to pay for the extra cost of what is considered “unnecessary” building features, and frequently make choices between cost and quality when selecting how buildings are constructed. This is a choice the owner of the building makes, a trade-off between the lower initial construction cost and the higher cost of maintaining and renovating the building in the future. (sub. 38, p. 4)

However, building design suffers both from principal-agent and asymmetric information problems. First, those who make the tradeoffs may not be the ones to reap the rewards or bear the costs of the decisions made. For example, this occurs when houses are sold ‘on spec’, with residential strata schemes, when a building is rented or leased, and when buildings change hands. In itself, this would not be a problem if the new owners or occupants could confidently determine what decisions had been made for them. However, building owners or occupants may not have complete information about the relative costs and benefits of alternative construction methods. As discussed in chapter 3, information asymmetries may mean that the occupier is not able to assess particular designs and judge the level of maintenance (or other life-cycle costs) that a particular design or building will require. As noted by the Campbell Report (2002), this may be a particular problem for multi-dwelling residential (class 2) buildings.

By allowing alternative solutions that enable tradeoffs to be made between construction and life-cycle costs (in particular maintenance costs), the use of performance-based regulations may provide an incentive for builders (or developers) to shift costs onto owners and occupiers and reduce construction costs. This is especially the case if the maintenance costs (which are likely to be borne by the building owners or occupants) are not considered, or are not considered as being important, by the designer or developer when assessing the design. This may cause further difficulties if increased maintenance costs and more complicated maintenance requirements lead to building owners or occupiers failing to undertake necessary maintenance (either through wilful neglect or simply being unaware of the maintenance needs).

The extent to which these problems are apparent within the BCA is discussed in section 5.2 along with strategies for minimising their adverse consequences.

Summing up

The use of performance-based regulation can bring significant benefits by way of flexibility, innovation and cost savings to the building industry and consumers. While there are some disadvantages associated with the use of performance-based regulation, the existence of deemed-to-satisfy solutions in the BCA should at least limit the extent of these. The Commission supports the objective of performance-

based codes. (The extent to which a performance-based methodology has been incorporated into the BCA is discussed in section 5.2.)

Community expectations of health, safety and amenity

Another objective contained in the mission statement of the ABCB and pursued through the BCA is ensuring that buildings meet community expectations of health, safety and amenity. This aim is reiterated in objective two of the IGA and in the BCA itself.

Community expectations

The term ‘community expectations’ is used to indicate the *level* of building performance that is to be achieved in those areas regulated by the Code. For example, in the case of energy efficiency and sound insulation, the Code has to specify a level of energy use and sound abatement that meets ‘community expectations’. Community expectations are similar to a social norm, where individuals in the community have developed a shared understanding that buildings will attain a certain level of performance, and act as a ‘given’ — providing certainty in peoples’ minds on some aspects of building performance and thus removing or reducing the need for people to verify these matters (see box 5.3). For example, in Australia, the community would generally expect a house to have a functioning toilet (although this may not be the expectation in every country).

However, ‘community expectations’ is a vague concept and what the community expects may bear little relationship to what it is willing to pay for or what would be the solution that maximises net benefits to the community. As such, there are some difficulties in using ‘community expectations’ to determine the level of building performance to be embodied in the Code:

- It may be difficult to gauge precisely what community expectations are in relation to a particular aspect of building performance. Individuals have a range of expectations about the appropriate level of building performance. It is difficult to draw from these, one measure of a community’s expectations. Should it be the minimum acceptable to the member of the community with the highest expectations, or the member with the lowest? Should it be the average level of expectation amongst individuals in the community? Should it be the community’s consensus (assuming one exists) as to the acceptable level?

Box 5.3 **Social norms, community expectations and building performance**

Social norms are shared understandings, informal rules and conventions that prescribe, proscribe or modulate certain behaviours in various circumstances. Generalised social norms can include honesty, law abidingness, the work ethic, respect for elders, tolerance and acceptance of diversity, and helping people in need. Social norms can also relate to specific situations such as paying bills on time, queuing at shop counters, returning other's lost possessions, surrendering seats for the elderly on public transport, and forms of greeting. Social norms are often unwritten, although they can also be expressed or reinforced through tribal or religious beliefs and dictums, nursery rhymes, social sayings, music and drama. Under some interpretations, social norms can also be embodied in laws and regulations themselves. (PC 2003a)

In many ways 'community expectations' can be seen as being similar to a social norm. While they are not rules or conventions per se, they may be seen as shared expectations (of building performance) that individuals rely on and which affect their actions and decisions. For instance, the members of a community may have a shared expectation that a building will withstand a moderately severe hail storm. Armed with this expectation individuals may not assess the storm resistance of a building before occupying it, relying instead on their expectations.

Nevertheless, community expectations (where they exist) may not provide the most appropriate level of building performance for regulation (assuming they can be pinned down to a particular level). To the extent that community expectations are similar to social norms, they would usually be formed through shared historical experiences. For instance, the reason a particular building attribute, such as a functioning toilet, becomes a community expectation is because historically each building has had one and people have come to expect it. In this way, the community expectation would not necessarily be the most efficient level of building performance, rather the level that people have come to expect.

Indeed, it may be the case that where an information asymmetry exists, community expectations will imply a different level of building performance to that which individuals would have adopted had they had full information. For instance, if a new and worthwhile product becomes available, but is not taken up due to an information asymmetry (individuals cannot adequately assess its value or benefits), it will not be widely used and people will not come to expect its use. In this case, if the level of regulation were set to reflect community expectations, they would not require use of the product, even though on a proper assessment of costs and benefits regulating for its use may provide net benefits.

In situations where such 'community expectations' exist, the ABCB may wish to consider these when determining the appropriate regulation. It is not clear that a community expectation exists for all aspects of building performance. Further, even where one does exist, it may be the case that the most efficient level of regulated building performance is higher or lower than the level of community expectation.

Source: PC 2003a.

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- Community expectations are likely to differ from community to community, reflecting differences in geographical and social conditions. Thus, finding a level of building performance that represents a general or nationally acceptable level may be difficult.
 - Community expectations are likely to change over time, perhaps reflecting changes in social and economic conditions.

The ABCB Chairman has acknowledged that community expectations vary and, in particular, that they may change in response to particular events:

It is inevitable that, in a country with 20 million people, significant geographical and climatic variation and cultural diversity, there will be different and even conflicting expectations about aspects covered in the BCA. For example, a community that has recently experienced significant building damage caused by storm and flooding may have a higher expectation of the protection against storm and flooding afforded by the BCA than a community that has not experienced an event for some time, if at all. (sub. 4, p. 11)

Similarly, Ronald Swane noted that:

One of the difficulties is to keep pace with changing community expectations. Compare the first home that our parents acquired to that which our grand daughter considers acceptable. These changing expectations may not be economically rational, but they are a reflection of rising affluence and should be considered in a regulatory sense through building regulation. (sub. 12, p. 3)

Nevertheless, identifying the level of building performance to be achieved through regulation is an important part of specifying regulatory objectives. The ideal solution would be for regulation to result in each individual attaining the level of building performance they would have chosen if there were no market failure. Unfortunately, this level of building performance will vary from individual to individual, and it is not possible for regulatory intervention to provide for this level of flexibility. Rather, the BCA must incorporate a single (minimum) level of performance that is applied to all buildings, regardless of individual preferences.⁴

Of course, no matter what level of building performance is incorporated in the BCA, some portion of the population is likely to find that it either exceeds or falls short of their desired level of performance. For instance, if the BCA embodies a level of performance that meets the preferences of the community member with the highest standards, the majority of society will be obliged to incur the cost of paying for a level of performance well above what they consider necessary. Similarly, if the BCA embodies the level of performance desired by the individual with the lowest

⁴ Although, as noted earlier, the BCA may be varied on certain geographic or other objective grounds.

preferences, the majority of the population may be faced with incurring the cost of accepting what they consider sub-standard buildings, although it is open to consumers to pursue higher performance than the mandatory minimum, albeit usually at higher cost to them.

Achieving efficiency involves maximising net benefits to the economy and society. While this can never be an accurate exercise, the ABCB should attempt to ensure that when choosing a level of (regulated) building performance, there is no other feasible alternative (whether available to the ABCB or not) that generates greater net benefits. This involves assessing not just community expectations (if any are relevant) but a number of other aspects, including:

- *The ability of individuals to voluntarily choose higher levels of performance than that mandated by the BCA.*⁵ It is unlikely that individuals will have the ability to fully assess building performance and choose the precise level of building performance that they desire (or else there probably would not be a market failure and rationale for regulating in the first place). However, the less costly it is for individuals to attain information about (or the easier it is to estimate) the performance of a building, the lower the optimal level of (regulated) building performance is likely to be. Nevertheless, with respect to externalities, the capacity to choose higher levels is unlikely to improve outcomes, as the consumer has no incentive to do so.
- *The uniformity of preferences.* If preferences are largely clustered, it may be relatively easy for the ABCB to find a level of building performance that is acceptable to all. However, if preferences are more diverse, it will not be possible for the ABCB to find a level of building performance that satisfies all individuals. It will have to tradeoff the interests of various sections of the community to find a level of performance that maximises net benefits to the community.
- *The type of market failure.* As discussed in chapter 3, there are a number of market failures afflicting the building industry, including information asymmetries and spill-over costs and benefits. The most appropriate level of regulated building performance will vary according to the nature of the problem. In the case of information asymmetries, the ABCB is attempting to find the level of performance that individuals would adopt if they had full information about the costs and benefits of various levels of performance. In the case of spill-over effects, the ABCB is attempting to find the level of performance that individuals

⁵ This is particularly important when considering ‘minimum acceptable’ regulations. The rationale behind the use of minimum acceptable regulation is dependant, to some extent, on the ability of individuals to voluntarily choose higher levels of performance at a reasonable cost (see below – ‘other objectives’).

would have adopted if they had to fully charge and compensate all external parties for the costs and benefits visited on them by the building.

- *The costs associated with higher performance.* Incorporating higher levels of performance into buildings is not costless. If the costs are significant, they may impact upon the affordability of buildings and have particular impacts upon certain groups in society. All of these costs need to be weighed against the benefits of higher building performance.
- *The benefits associated with higher performance.* While higher levels of building performance clearly provide benefits to owners and occupiers, regulating in some areas of performance may provide (potentially) larger benefits than others. For example, ensuring that a building is structurally sound and preventing loss of life from building collapses or fires, may be seen as providing higher benefits than ensuring that levels of energy consumption in a building are acceptable.
- *Community expectations.* If the ABCB can identify any community expectations in relation to an area of building performance, these may also help guide it toward the most efficient outcome. As discussed in box 5.3, in many cases, the level of building performance associated with community expectations will not be precisely that which maximises net benefits.

In response to draft recommendation 11.2, covering the future objectives of the ABCB, some participants expressed concern that removing explicit reference to community expectations would lead to the preferences of the community being overlooked:

A key issue with regard to consideration of environmental issues within building regulation is that it is community expectations, as reflected by the pressures felt by State and Commonwealth governments, that have led to their consideration in building and planning codes. Failure to explicitly incorporate consideration of community expectations and standards into the Mission Statement simply means that it will happen by osmosis, and will be slower and less efficient, and there will be more unnecessary conflict. (The Australian Business Council for Sustainable Energy, sub. DR78, p. 3)

ALGA does not support the revised mission statement for the ABCB which sees the exclusion of community expectations as a valid objective for the ABCB or its replacement. ALGA considers that communities can rightfully expect to have some influence over the standards and regulation that governs their built environment. (Australian Local Government Association, sub. DR86, p. 1)

It is noted that any reference to “community expectations” has been removed from the mission statement and the subsequent proposed objectives. Whilst it is appreciated that defining “community expectations” and achieving a consistent and uniform outcome in this regard is difficult ... Governments (and the ABCB) have a significant role to play in understanding and responding to the needs and expectations of the community in the development of policy and delivery of on the ground outcomes. Accordingly, it is

important that this aspect is considered in some context in the decision making process relative to the development and reform of building regulations. (New South Wales Government, sub. DR87, p. 7)

It is accepted that the term ‘community expectations’ presents difficulties in respect to quantification and defining what can be economically justified. To abandon it as a criterion however would be fraught, as the signal it would send is that the ABCB no longer planned to heed what the community wants in relation to its safety, health and amenity. (ABCB Chairman, sub. DR75, p. 4)

The removal of community expectations from the mission statement and objectives of the ABCB does not indicate that the preferences and desires of the community should be ignored. Rather, it recognises that meeting community expectations should not be the only consideration for the ABCB and BCA. The ABCB should consider a number of factors (such as those outlined in the dot points above) that may be relevant to determining the efficient level of regulation. Significant factors are the preferences of individuals, the benefits they receive and also any expectations they may have (which could be seen as loosely driving ‘community expectations’). But there are a number of other factors that should also be assessed, including the willingness to pay for higher levels of performance and the availability of other regulatory and non-regulatory options. Rather than targeting community expectations, the Code should be directed at addressing market failures and generating net benefits.

Health, safety and amenity

The IGA sets out an objective to protect health, safety and amenity. Beyond the general rule that aspects of building performance should only be regulated where there is justification on grounds of market failure, this provides guidance to regulators both as to what areas of building performance should be regulated and to the regulatory objective.

Identifying areas of building performance that affect the health and safety of occupants (and external parties) is normally relatively straightforward and non-contentious. Relevant areas may, for example, include protecting the occupants from structural failure or fire in a building and ensuring adequate levels of sanitation.

However, identifying the aspects of building performance that affect amenity is more difficult. Amenity is not explicitly defined in the BCA and there is no universally agreed definition that can be used as a benchmark. General definitions differ somewhat, ranging from a focus on the basic comforts of life to encompassing broader issues of quality and aesthetics. For example, the Macquarie dictionary defines amenity as:

Features, facilities or services of a house, estate, district, etc., which make for a comfortable and pleasant life.

Standards Australia defines amenities as:

Indoor or outdoor facilities and/or conditions associated with a building, site, or community used for personnel comfort, convenience or enjoyment of leisure as distinct from the work of industry or business. (Leslie and Potter 2004, p. 8)

Another popular definition⁶ identifies amenity as being:

A feature of real property that enhances its attractiveness and increases the occupant's or user's satisfaction although the feature is not essential to the property's use.

In any case, most definitions of amenity are relatively broad and, to some extent, all aspects of building design and construction affect the wellbeing, comfort and enjoyment derived from a building. In this sense, using the concept of amenity does not offer much guidance as to what should and should not be regulated by the BCA. This lack of guidance is the source of some confusion in the industry about the aims and ambitions of the BCA. For example, the HIA noted that:

References to the term amenity have caused confusion within the industry for some time and there may be significant benefit to it being interpreted more narrowly in order to provide focus. (sub. 6, p. 9)

Similarly, the South Australian Government submitted that:

The difficulty with the term 'amenity' in the BCA process is that it is a qualitative measure and is more open to subjective opinions. It would be useful to provide an explanation of what the term means as applied to the BCA. Matters such as visual design, building bulk and overshadowing are probably not appropriate to be included in the term where as thermal comfort, noise and access for the disabled probably are. (sub. 36, p. 10)

At present, it appears the ABCB has adopted a fairly narrow definition of amenity and has only regulated to protect amenity in a relatively small number of areas.⁷ The HIA (sub. 6, p. 9) argues that areas of the BCA that currently have the objective of protecting amenity can actually be related back to the protection of health and safety. In a similar vein, the ABCB Chairman sees the protection of amenity in some instances as a by-product of the protection of health and safety:

⁶ See: <http://www.google.com.au/search?hl=en&lr=&ie=UTF-8&oe=UTF-8&oi=defmore&q=define:amenity>.

⁷ Areas of building performance that are regulated by the BCA with the objective of protecting people from a 'loss of amenity' include: structural provisions; room sizes; light; ventilation; sound transmission; and personal hygiene facilities.

On the delivery of amenity to the community, the achievement of acceptable levels is often linked to the achievement of other code objectives. For example, requirements for minimum numbers of sanitary facilities guards against conditions developing that could impact on building occupants' health, but also provides for positive amenity by minimising the inconvenience in public buildings of having to queue for an unreasonable time to use the facilities. The primary purpose of structural standards in the BCA is to prevent collapse (safety) but they also address serviceability (amenity); eg: a timber floor must not only resist collapse under load but must also be rigid enough to prevent excessive 'bounce' that can result in a feeling of discomfort. (sub. 4, p. 12)

An additional issue concerning health, safety and particularly amenity is determining whose health, safety and amenity should be protected. In general, the BCA protects the occupants of the building from health and safety risks, and protects neighbouring buildings from physical dangers (for example, in the case of fire or structural failure). While it is less clear in the case of amenity, the ABCB Chairman's submission notes that:

The amenity issues dealt with by the BCA are concerned primarily with building users or occupants. Other amenity issues, particularly dealing with external factors and the broader community, have traditionally been dealt with by planning controls. (sub. 4, p. 12)

In addition to health, safety and amenity objectives outlined in the IGA, the ABCB itself has recently added the objective of 'sustainability'. As discussed in chapter 6, the term sustainability is difficult to define and can mean different things to different people. Further, participants have varying views on which aspects of building design have to be addressed under the 'sustainability' banner. As outlined in chapter 6, the Commission prefers the term 'environment' to sustainability as it offers more precision and greater guidance as to the issues at hand.

Regardless of health, safety, amenity and environmental objectives, as discussed in chapter 3, aspects of building performance should only be regulated where there is justification on grounds of market failure (such as information asymmetries or externalities). It is plausible to expect that many aspects of building performance related to health and safety would suffer from market failures. First, many building owners and occupiers may not be able to judge the 'level' of safety that a building provides. For example, many home owners may not be able to judge if their home contains dangerous asbestos products. Second, even if home builders or owners have knowledge about the safety levels in their buildings, they may not take into account the preferences of visitors or tenants when building. For instance, builders of office buildings may not adequately take into account the preferences for safety of the workers who will use the building once it has been completed.

As discussed above, amenity is a much more amorphous term and it is unclear as to whether it is associated with significant market failures. As discussed in chapter 6, there may also be a number of market failures associated with the environment (and sustainability), although the Code may not always be the most appropriate instrument with which to address these market failures.

In summary, while health and safety are relatively straight-forward, amenity (and sustainability) is less easily defined and may not offer significant guidance as to what areas of building performance should be regulated. While the Commission considers that the ABCB should only intervene to address identified market failures, many of these relate to the health and safety aspects of buildings. The inclusion of amenity and/or the environment in the objectives of the Board may encompass any market failure not associated with health and safety. Nevertheless, it is important to recognise that this does not mean the ABCB **should** regulate to address all matters related to health, safety, amenity or the environment, rather, it is only recognising that these areas **may** be subject to market failures that may be best addressed through the BCA.

Plain language

Objective six of the IGA requires the ABCB to ‘simplify the wording of building requirements to achieve user friendliness and plain language style’. It is important that any regulation is accessible for its users. This relates to the dissemination of the BCA (which is discussed in chapter 8) as well as how the BCA is written and presented to the user. As noted by the International Council for Building Research and Documentation (CIB 1997), building codes need to be written in a simple and straightforward manner:

Two factors influence the extent to which a building code can be understood by all of its users: the format (organisation and content) and the language.

The format must be clearly and consistently applied throughout the code, to ensure that users seeking to understand what a particular provision requires, and why, are guided to the relevant information quickly and easily.

The language used must be simple, devoid of jargon and chosen with a full awareness of the level of understanding of the average code user. (p. 3)

The BCA is used by a variety of practitioners with a range of backgrounds. Some of these are likely to have university training, such as engineers and architects, while others, such as builders and tradespersons, may have taken more practically-based courses. Some may also have English as a second language. In addition, consumers of building products may wish to access the BCA to find out what is covered and what levels of building performance they can expect.

Some participants have argued that the BCA is primarily used by designers and certifiers and the need for access by builders and tradespeople is less important:

The main use of the BCA appears to be by building designers and architects in their professional work, building surveyors/certifiers in approving plans and building work, governments in regulatory compliance proceedings, and legal practitioners in related litigation. (ACT government, sub. 48, p. 3)

The need to enable access by all levels of building practitioner to the BCA is somewhat simplistic. The BCA is primarily a design document for design professionals and building surveyors to use. ... Designers prepare construction drawing and specifications etc. on the basis of the BCA provisions and these are then passed to builders to build the buildings. (Mr Graeme Hunt, ABCB board member (Tasmania), sub. DR83, p. 2)

The Commission acknowledges that the key users of the code are designers and certifiers and it is essential that the Code continues to embody the critical technical detail required by such users. Nevertheless, it is also important that builders and tradespeople are able to follow the requirements of the BCA. Ensuring that all building practitioners can understand and apply the Code is an important step in promoting compliance with the building regulations. Further, if consumers are able to be familiar with the requirements of the Code, they can more readily judge the level of building performance to expect, and ensure that the building meets their preferences. While some of these functions may be addressed through the increased use of guidance material (see chapter 9), it is still important that the Code be expressed clearly and in plain language.

Other objectives

In addition to the objectives outlined individually above, the ABCB's mission statement and IGA objectives require that the BCA should be:

- efficient
- cost-effective
- representative of minimum, least-cost solutions
- representative of modern solutions.

A number of these requirements relate to the concepts of efficiency and cost effectiveness. While these are similar concepts and are aimed at generally the same outcome (the best use of scarce resources), they do have different meanings:

- Cost effective — concerns meeting an identified objective in the least-costly manner (the least-costly technical solution that meets the objective). For example, the ABCB may wish to ensure that buildings achieve a set level of

thermal protection. A cost-effective objective would require that the ABCB regulate for the least-costly method of gaining this level of thermal protection. The choice is not subjected to a net-benefit test and the outcome could even result in a net cost. Thus the focus is on measuring costs and not benefits.

- Efficient — concerns maximising net benefits (ie benefits minus costs). Thus the costs and benefits of each option (including the goal and method of reaching it) are weighed up and a selection made so as to maximise net benefits. In the example of thermal protection, the ABCB would look at all options, including aiming for different levels of thermal protection or other ways of achieving the ultimate objective of reducing greenhouse gas emissions, and choose the avenue that would lead to the greatest net benefit.

An efficient solution will be cost effective. However, a cost-effective solution is not necessarily efficient (ie it may not maximise net benefits). There may be a number of cost-effective solutions (each relating to a particular objective or level of benefits); however, only one will maximise net-benefits and this solution is the most desirable. The mission statement, and objectives of the IGA, refer to cost effective, efficient and even least-cost (which the Commission interprets in a similar manner to cost-effective⁸) in various places. This points to a significant overlap in the objectives and is unnecessary, as any regulation that is efficient will also meet the other objectives. This is not to say that an objective of cost effectiveness should not be pursued by the ABCB. Rather, it is recognising that cost effectiveness should be achieved as a by-product of pursuing efficiency and, thus, does not need to be explicitly stated in the ABCB's objectives.

As discussed in chapter 3, one guiding principle for good regulation is that it should be the minimum intervention necessary to achieve the regulatory objective. The primary rationale behind the implementation of minimum standards is to increase the level of flexibility for building practitioners and, in principle, increase the level of choice over building performance for consumers. As noted earlier, preferences in regard to building performance are likely to vary from consumer to consumer and a single solution or level of building performance is not going to best meet the needs of all consumers. For example, price conscious consumers may not wish to pay for increased levels of energy efficiency in their homes, while other consumers may be willing to do so in order to reduce future utility costs or out of concern for the environment. By adopting minimum acceptable standards, the BCA aims to ensure

⁸ Objective 2 requires that the Code reflect 'minimum least cost solutions which address regulatory objectives'. This could be interpreted as implying that the Code should reflect the lowest cost method of building construction. However, as the requirement is constrained by the need to meet regulatory objectives, it appears that this requirement is in effect the same as 'cost effective' (which implies that the Code should adopt the least cost approach that meets the objective).

that all buildings provide adequate levels of health, safety and amenity but, beyond this, the level of building performance can be tailored to best meet the circumstances of the consumer. Mandatory best practice, on the other hand, limits consumers to adopting one level of building performance (best practice) regardless of their preferences or income levels.

Nevertheless, the adoption of ‘minimum’ standards does not derogate from the need for the regulation to address the market failures. Under the current BCA, this means that the regulation still has to meet community expectations (that is, be ‘acceptable’ to the community), not just reflect the lowest possible standard. The level of building performance that addresses the market failure may, in some cases, be quite high. This is particularly the case where there are large information asymmetries and it is impractical, or too costly, for consumers themselves to ensure a higher level of building performance.

The objectives also require that the building solutions be modern as well as efficient. This may introduce an additional conflict. While, in general, modern building solutions will represent more up-to-date technical solutions, it is not necessarily the case that these will be efficient. Indeed, ‘tried and tested’ solutions (that are not necessarily modern) may represent more efficient solutions. In this sense, the concepts of modern and efficient may, in some instances, be in conflict.

Summing up

There are currently a number of IGA objectives pursued through the BCA. Many of these, such as ‘consistency’ and ‘performance based’, are central to the ambitions of the ABCB. Overall, the Commission supports the majority of these objectives, in particular, the pursuit of consistent, performance-based regulations. Nevertheless, some objectives, such as ‘efficient’, ‘cost effective’ and ‘least-cost’ are not clearly defined and appear to overlap. In addition, other objectives such as ‘modern and efficient’ have the potential to conflict. It would be possible to discard ‘cost effective’, ‘least cost’ and ‘modern’ as each of these objectives will be implicitly achieved whenever regulations are efficient.

The Commission believes that it would be possible to refine and simplify the objectives pursued through the BCA. Recommendations regarding revised objectives are outlined in chapter 11.

FINDING 5.1

The majority of the ABCB’s objectives pursued through the BCA are appropriate. However, some objectives are unclear, appear to overlap and have the potential to be in conflict.

The objectives of the ABCB should be revised in order to remove conflict, overlap and imprecision.

5.2 Assessing the ABCB's performance in meeting IGA objectives

While the previous section discussed the appropriateness of the ABCB's objectives, this section assesses the ABCB's performance in achieving the IGA objectives that are pursued through the BCA.

National consistency

The BCA shows substantial progress toward establishing a nationally consistent Building Code for Australia. One key measure of consistency is the number of State and Territory variations to the BCA. It appears that the ABCB has been successful in reducing the number of these variations. In reviewing the progress of the ABCB, the Laver Review (2000) found that:

When the BCA was first published there were a significant number of State and Territory variations to the code. Three national conferences were subsequently held which reduced the number of variations to 22 in volume 1, and 12 in volume 2. (p. 9)

Further, the ABCB has informed the Commission that, with regard to variations in the *deemed-to-satisfy* provisions:

... since 1990 there has been significant and continuous reduction in variations. By 2003 there had been a total reduction of nearly 80% (1990 — 359 variations, 2003 — 74 variations). (ABCB, pers. comm., 16 June 2004)

In addition, the ABCB informed the Commission that there was a relatively small number of variations to *performance requirements*, involving '17 instances out of a total set of 95 BCA Performance Requirements' (ABCB, pers. comm., 16 June 2004).⁹

⁹ There appears to be some confusion regarding the precise number of variations in the Code. In a recent submission to the Productivity Commission's inquiry into First Home Ownership, the Building Products Innovation Council (2003b, p. 2) indicated that there were 'some 105 state and territory government variations ... in the BCA'. This difference may reflect different interpretations of variations in the Code (ie what counts as a variation) and different points in time at which the estimates were made.

However, recent amendments to the BCA appear to have led to an increase in the number of inconsistencies. In particular, amendments regarding energy efficiency are subject to a significant number of variations, reflecting the fact that some jurisdictions (NSW, Victoria and the ACT) have not adopted the measures, while others have only adopted the measures with variations. The ABCB has acknowledged that:

... in recent years, the overall reduction in variations has been offset to some extent by the emergence of new variations, primarily, but not exclusively, in the area of state variations in “new” areas of BCA consideration. (ABCB, pers. comm., 16 June 2004)

Although, in response to the draft report, the ABCB chairman noted that:

The observed departure from national consistency in recent times is temporary and more a reflection of the maturity of regulation in a new area than any shift away from this overriding goal. For example, while five States adopted the BCA energy efficiency measures for houses to some extent in 2003, it is likely that all but one jurisdiction will largely adopt the BCA changes proposed by the ABCB over the next two years. (sub. DR75, p. 3)

Nevertheless, other participants in the study have noted that there are still significant jurisdictional variations in the BCA:

There is presently a lack of consistency between States and Territories with the permitted BCA variations, which lead to inconsistencies in building design and does not promote the aspect of a national Code. Issues such as the permitted volume of high fire hazard goods in Victoria, 12m travel distance in Victoria for sprinkler protected residential buildings of less than 25m in height and the requirements for Places of Public Entertainment in NSW are good examples. These variations should be removed to ensure that the BCA is a national document. (Arup Fire, sub. 15, p. 3)

There are times when one could reasonably question whether Australia is one country. There are many instances where differences exist between the states and where it is difficult to see clearly the justification for these differences. (Air Conditioning and Mechanical Services Association of Victoria, sub. 16, p. 9)

Thus, while the ABCB appears to have been successful in reducing the number of variations in the BCA, there is still room for more progress to be made in achieving national consistency.

Inconsistency in building regulations may also come about through the creation and implementation of other regulations that affect the construction of buildings. For instance, regulations covering food safety or dangerous goods may have requirements about the design or construction of certain buildings. Most jurisdictions have a number of such regulations (see chapter 6) and these may be inconsistent with the BCA and/or may introduce additional inconsistencies between jurisdictions. In this vein, the ABCB Chairman has acknowledged that:

... there are still opportunities to further reduce variations and to consolidate other on-site regulatory requirements into the BCA, as has been the case with Tasmania. Efforts will continue to be directed to these matters. (sub. 4, p. 15)

Other areas that may also lead to inconsistency between building regulation in various jurisdictions include Local Government regulations, in particular, planning controls (chapter 6) and the administration of the BCA (chapter 7). In addition, because some other issues remain unresolved, in particular, those relating to the scope of the BCA and whether it should be setting standards for qualities not impacting on health, safety and amenity, there is greater potential for inconsistency and conflict across jurisdictions.

FINDING 5.2

The ABCB has reduced the number of jurisdictional variations in the BCA. However, there are still significant inconsistencies, particularly in relation to energy efficiency regulations, which have recently been added to the BCA.

Performance based

In each area of building performance regulated under the BCA, a performance requirement has been adopted, stating in broad terms what the building must achieve to be compliant with the BCA. In this sense, the BCA has been successful in embracing a performance methodology and previous reviews of the ABCB have assessed the BCA as having satisfied the objective of achieving a performance-based approach (Laver Review 2000, KPMG 2000).

However, the majority of the ‘performance requirements’ do not give readily measurable outcomes that must be achieved. In fact, the BCA follows a more ‘principle-based’ approach (see section 5.1) and specifies broad, but not measurable, targets or objectives for the building. For instance, in the case of structural provisions the BCA does not specify precisely the loads that must be withstood by any building (such as wind-speed loads or dead loads) — rather, it requires that the building must withstand ‘actions to which it may reasonably be subjected’.

Some interested parties expressed concern with the formulation of the performance requirements in the Code:

The BCA performance provisions are too brief and the deemed to satisfy provisions are too specific, too complicated and too limiting. ... Substantial effort goes into maintaining and applying deemed to satisfy provisions yet seemingly little change occurs in relation to performance based provisions in order to make them more broadly usable instead of DTS. (AEA, sub. 44, p. 19)

To those who are not too close to the issues, this ABCB stance may seem perfectly acceptable, but the major problem is that the objectives, functional statements and performance requirements were in our opinion promulgated in haste to meet the publishing deadlines for the new 1996 version of the PBCA... (Alliance for Fire and Smoke Containment, sub. 31, p. 4)

The ABCB should work towards improving the clarity of performance requirements and work to create verification methods to measure compliance with performance requirements. (Master Builders Australia, sub. DR82, p. 2)

It appears that the intention was to add aspects of ‘measurability’ to the BCA96 after it had been introduced. An International Council for Building Research and Documentation report noted that:

One of the significant decisions made during the development of BCA96 was that it was not necessary for each performance requirement to be measurable. The measurability issues will be revised after BCA96 has undergone a settling period and more research is completed. Studies undertaken by the fire code reform centre will provide information which will be useful in resolving this issue in the future. BCA96 continues to allow for acceptable existing building practices through the deemed-to-satisfy provisions. (CIB 1997, annex A, p. 5)

In relation to some areas of building performance, verification methods have been included in addition to the performance requirement. For example, in the case of fire resistance requirements, the BCA includes a verification method that sets out measurable requirements for the level of heat that a building must be able to withstand in the case of fire. Nevertheless, these verification methods are not mandatory and a designer can choose an alternative verification method for the purposes of proving that the building meets the performance requirement. In any case, these verification methods have only been used in relation to a few performance requirements — the majority have no readily measurable method of certification.

Thus, it appears that, in many respects, the current BCA may more readily be described as being ‘principle based’ rather than performance based. Principle-based regulation does have some advantages over performance-based regulation — chiefly, it offers even greater flexibility to designers and regulators. Nevertheless, it does pose some problems, in particular with implementation and verification (which are discussed in more detail below).

While participants generally endorsed a recommendation (in the draft report) to enhance the effectiveness of the performance requirements, some submissions expressed concern about the feasibility and effects of attempting to add ‘measurability’ to the performance requirements:

[Draft Recommendation 5.2 is] supported. However, this task is not simple and may limit opportunities for innovation. It assumes that the measurable criterion is the only method of achieving the performance requirement. A simple example of this is to consider emergency lighting levels required at the floor compared with way-finding light strips used in aeroplanes. (Mr Graeme Hunt, ABCB board member (Tasmania), sub. DR83, p. 1)

While HIA agree with this recommendation [5.2] it is important that the process used to make performance requirements more effective does not stifle innovation or the potential development of alternative solutions. During the development of the BCA a decision was made to not include quantified outcomes within the performance requirements in order to provide for unlimited alternative solutions. HIA consider that this principle should be retained and that the most appropriate method to provide measurable criteria as an aid to assessing compliance of alternative solutions is to develop verification methods. (Housing Industry Association, sub. DR85, p. 12)

It is NATSPEC's experience that, even given the greater latitude available to us in preparing master specifications, arriving at such [measurable] performance based descriptions may not, in fact, be achievable. Put simply, there may well be no way of describing, in general terms, the aims or objectives to be achieved in a way that represents verifiable and objective targets. (NATSPEC, sub. DR69, p. 5)

Because principle-based regulation can offer greater levels of flexibility (and ability to innovate) a move to make the performance requirements more measurable and truly reflective of performance-based regulation could lead to some loss of flexibility. And, as noted in submissions, it may not always be possible to precisely quantify the performance requirements. However, it is important that (to the extent possible) the performance requirements are specific in their requirements for a number of reasons. It is important that designers and builders are given clear guidance on what performance levels a building must achieve in order to be compliant with the BCA (the current performance requirements have been criticised for not offering sufficient clarity to allow this — see below). It is also important for consumers and the wider community to know what the BCA requires and what they can expect to receive in a building. That is, it is important that the performance requirements do not leave loopholes (through being imprecise in their formulation) that may allow 'substandard' building practices.

It is beyond the expertise and scope of the Commission to recommend the particular manner in which the BCA should be changed. Nevertheless, the suggestion that increased use of verification methods could improve the measurability of performance requirements would appear to have some merit. This would assist designers and builders in complying with the Code. However, as verification methods are not compulsory, designers and builders are still at liberty to meet the performance requirements in other ways. Thus, for the benefit of consumers and the

community, it is still important that (even where verification methods are adopted) the performance requirements are clear in their requirements.

An additional short-coming with the BCA is that, in some instances, the deemed-to-satisfy provisions do not accord with the performance requirement. That is, the deemed-to-satisfy provisions embody a higher or lower level of performance than is required by the performance requirement. As discussed in chapter 6, this appears to be particularly the case with regulations directed at providing safety from fire. Certain deemed-to-satisfy solutions appear to protect life and property, while the performance requirements are only aimed at life safety (and the protection of neighbouring property). The Fire Protection Association of Australia (FPA) noted that:

In practice, many in the industry would think that a number of the solutions described by the Deemed-to-Satisfy text in the BCA would not meet the Performance Requirements. Equally, in other cases, the DTS would seem to include provisions that go beyond the implied BCA objectives and provide a high degree of property protection. This is illustrated by provisions in the BCA for 3 and 4-hour fire resistance which is well beyond the expected evacuation period for life safety. By contrast, fire safety provisions in building codes in New Zealand and Sweden, which have no property protection objective, typically have fire resistance levels of 1/2hr and 1hr more related to life safety objectives. (sub. 19, p. 5)

In addition to distorting the choice between deemed-to-satisfy and alternative solutions, differences in stringency between performance requirements and deemed-to-satisfy solutions can create difficulties with assessing alternative solutions (see below).

FINDING 5.3

The ABCB has introduced a framework for performance requirements for all areas of building covered by the BCA. However, actual requirements still follow a 'principle-based' approach, broadly outlining what is required, but not offering readily measurable or verifiable requirements, even though it was intended to revise and convert them to measurable 'performance-based' standards. In some areas of building performance regulated by the BCA, the deemed-to-satisfy solutions prescribe a level of performance that is not aligned with the performance requirement.

RECOMMENDATION 5.2

The ABCB should enhance efforts to make the performance-based requirements in the BCA more effective. This should include providing measurable criteria to aid judging compliance and clarifying the assessment process to be used.

The ABCB should enhance efforts to ensure that all deemed-to-satisfy provisions in the BCA offer an equivalent level of building performance to that required by the performance requirements.

Difficulties in pursuing the performance-based Code

As noted in section 5.1 there are, in theory at least, some difficulties and disadvantages associated with the use and implementation of performance-based regulations. This section looks at how these have manifested themselves in relation to the performance-based BCA.

Assessing compliance with the performance requirements

The ‘principle-based’ nature of the current requirements makes it more difficult for practitioners to judge compliance with the performance requirements. In particular, submissions have noted that this makes designing and assessing alternative solutions difficult and creates uncertainty:

Currently, the Performance Requirements in the BCA are written in qualitative terms and subjective arguments arise as to whether these Performance Requirements are satisfied by any particular design. The BCA provides for the concept of “equivalence” to be used to assess fire “engineered solutions”, but again, without a standard measurement tool, establishing “equivalence” can be quite difficult. (FPA, sub. 19, p. 7)

The idea of descriptive rather than prescriptive regulation - whilst good in theory - has resulted in great uncertainty: This uncertainty is resolved only when an independent certifier can be found to ‘sign-off’ proposals. This is because the means of verification are in the most cases uncertain and tentative. This leads to the most conservative ‘deemed-to-satisfy’ solutions being employed - stifling innovation. (Dr David Leffer, sub. 34, p. 1)

... the objectives, functional statements and performance requirements ... are open to serious interpretation issues by nature of their current format. (Alliance for Fire and Smoke Containment, sub. 31, p. 4)

Also, direct comparison between the stringency of Performance Requirements and Deemed-to-Satisfy provisions is inherently difficult because of the qualitative nature of the Performance Requirements. (ABCB Chairman, sub. DR75, p. 7)

Further, the AEA argued that, as inspectors and certifiers have difficulty in applying the performance-based requirements, ‘the majority of BCA users simply prefer to follow the deemed-to-satisfy approach, ignorant to, or uncaring of the disadvantage it brings’ (sub. 44, p. 5).

One key method of proving that an alternative solution meets the performance requirement is via comparison with the deemed-to-satisfy provisions. That is, if the alternative solution can be demonstrated to offer a level of performance equivalent to the deemed-to-satisfy solution, then it complies with the performance requirement. However, when the deemed-to-satisfy solution does not align with the performance requirement (see above), this method of proof becomes impractical.

Comparison with deemed-to-satisfy solutions may be particularly important where the performance requirements themselves do not represent a well-defined level of performance. Thus, to some degree, difficulties arising from inconsistent deemed-to-satisfy and performance requirements may be abated by the adoption of more readily measurable and verifiable performance requirements.

Nevertheless, deemed-to-satisfy solutions should achieve a level of building performance commensurate with that required by the performance requirement. Any differences distort the choice between alternative and deemed-to-satisfy solutions even where they should address the same objectives.

Difficulties associated with assessing whether alternative solutions meet the performance requirements may lead to increased costs and uncertainty, and may act as a disincentive to innovate and use alternative solutions.

An increased need for maintenance?

There are different views as to whether the introduction of performance-based regulations has markedly increased maintenance costs (and loads). The ABCB Chairman submitted that it was impossible to make a judgment about whether performance-based regulation had increased the need for maintenance:

Building owners and developers make decisions on up-front construction costs versus building life cycle costs regardless of whether the building design follows the prescriptive Deemed-to-Satisfy Provisions, or relies on a performance-based solution. The BCA is therefore ambivalent to whether performance-based solutions require more or less maintenance. Consequently, it is not possible to make a general assessment about whether the performance-based code tends to transfer costs from the construction to the maintenance of buildings. (sub. 4, p. 52)

Arup Fire submitted that ensuring buildings are adequately maintained has always been necessary:

Many accidental commercial fires in Australia in the past 20 years have been caused through poor building maintenance, whether it be inactive fire systems, illegal building works or general poor maintenance to aspects such as fire doors or fire walls. ... The change to a performance based code has highlighted the need for improved building maintenance requirements, but the need has always been highly relevant. (sub. 15, p. 4)

Nevertheless, several other participants have suggested that performance-based regulations have led to increased maintenance costs:

It has been the experience of AFAC members that performance based building regulations, and the associated reliance on design solutions, have led to the increased use of mechanical building systems requiring regular and ongoing maintenance. These systems can have the effect of transferring the cost from the construction to the maintenance phase. (AFAC Inc, sub. 28, p. 22)

Performance-based requirements tend to lead to alternative solutions that have a greater degree of reliance on mechanical (active) building systems requiring ongoing maintenance to have the necessary level of reliability for building safety. There is certainly the potential for significant ongoing costs for the building owner that should be explored by the design team. These solutions are also often tied to particular uses that in the longer term reduce flexibility for the building owner. (South Australian Government, sub. 36, p. 16)

Deem-to-satisfy (DTS) provisions have always been conservative and have had redundancies built into them. Redundancies have resulted in additional capital cost. With performance solutions the redundancies are not included to the same degree and therefore the continued compliance of the building is reliant on the building systems working as they were designed. This requires the systems to be maintained. The redundancy costs are therefore transferred to maintenance costs. Maintenance provisions are included in BCA2004 but need to be developed further to achieve national consistency. (Tasmanian Building Regulation Advisory Committee, sub. 29, p. 9)

Building Design and Regulation should properly address the life cycle requirements of all buildings. There are decisions taken at the design stage which will result in an inefficient building which imposes increased maintenance/lifecycle costs on a building for successive owners. (NFIA, sub. 3, p. 4)

[One challenge arising from the BCA96 is a] tendency for performance based design solutions to shift the financial burden from the builder in the construction phase to the owner in the maintenance phase. (KPMG 2000, p. 2)

The performance criteria allow the shifting of responsibility from the building process to the maintenance schedule. This allows poorer and cheaper practices to become the norm in the construction phase and requires the owner, who is inexperienced and whose concern is to achieve the maximum return for a short period, to invest resources in something that is not seen as being productive. (Australian Institute of Building, sub. DR67, p. 2)

In addition, a number of respondents to the Commission's survey of building surveyors (see appendix F), indicated that the introduction of performance-based regulation had led to some building designs removing fire safety features from buildings. In their opinion, this has led to an increased reliance on maintenance of essential fire safety services (and hence increased maintenance costs).

There appear to be reasonable grounds to conclude that the use of performance-based regulation has allowed costs to be shifted from the construction of a building to the maintenance phase, particularly in the case of fire resistance provisions. However, this is not necessarily a problem, especially if prospective owners or occupiers are made aware of (and agree to) these extra maintenance needs or if the extra maintenance costs are reflected in the price or rental cost of the building. Although, as noted in section 5.1, owners or occupiers may not always be able to assess the maintenance requirements of a particular building.

Addressing the issue of increased maintenance, and the problem of ensuring that maintenance requirements are undertaken, can be approached in two (not mutually exclusive) ways. First, regulation can be put in place that requires maintenance to be undertaken and second, measures can be implemented with the aim of improving the awareness of prospective owners and occupiers concerning the maintenance needs of a building (perhaps requiring clear statements about maintenance needs in occupancy certificates or purchase contracts).

At present, the BCA has a performance requirement that certain safety systems and water systems of commercial buildings be adequately maintained.¹⁰ It is not clear how broadly these provisions are interpreted. They could conceivably cover most safety aspects covered by the Code, or they could be interpreted narrowly to refer only to limited life safety measures such as alarms or sprinklers. In any case, the BCA does not impose maintenance requirements for other aspects of building performance¹¹ or for class 1 and 10 buildings (housing).

A number of participants have argued that the BCA's maintenance provisions should be strengthened:

From a BPIC perspective there is a definite need to ensure building maintenance is included in the BCA. The maintenance of products and systems on a regular and realistic basis will ensure their long-term performance while maintaining the credibility of the product. (BPIC, sub. 23, p. 64)

Whether a building is developed through a performance based solution or one that wholly meets with the prescriptive requirements, a national set of guidelines regarding maintenance is required. ... There are presently national Australian Standards for the installation of fire safety features (passive and active) and yet there is no national approach to maintaining these fire safety elements. (Arup Fire, sub. 15, p. 4)

¹⁰ For commercial buildings, the BCA requires that '[s]afety measures must be capable of performing to a standard no less than that which they were originally required to achieve' and that '[m]echanical ventilation and hot water, warm water and cooling water systems must be adequately maintained to safeguard people from illness or injury'.

¹¹ Although other government regulations may have requirements in this regard — sub. 4, p. 52.

A large proportion of performance-based solutions involved reducing the fire resistance of building elements, in exchange for additional active fire detection or suppression systems. It is therefore critical that the installed active systems may be relied upon to perform correctly in case of a fire, and proper and regular maintenance is an essential part of the solution. ICA believes it is essential that maintenance requirements be incorporated into the BCA. (ICA, sub. 38, p. 12)

MBA argued that maintenance of non-essential services should be at the discretion of building owners, but maintenance of essential services should be a requirement of the BCA:

There has been a proposal that maintenance issues be included or covered by the BCA. As a general principle, we strongly oppose the coverage of maintenance in the BCA. This matter we believe is the responsibility of owners in the normal commercial management of buildings. We support, however, the setting of maintenance requirements for essential services such as fire services, health and safety, but we would oppose the inclusion of general maintenance. (sub. 24, p. 10)

The ABCB Chairman submitted that maintenance requirements in the BCA have recently been strengthened and that work in this area is ongoing:

With the introduction of BCA 2004, more substantial maintenance provisions were inserted into the BCA for Class 2 to 9 buildings. Essentially these new provisions reinforce and clarify the intent of the pre-existing maintenance provisions. Further work is necessary to resolve concerns industry has about the lack of consistency on how maintenance is administered under the current state-based approach. (sub. 4, p. 52)

While the efficient level of maintenance requirements is likely to depend on a number of factors¹², as a general principle it is important that buildings continue to meet the health and safety requirements of the BCA (that were in force at the time of approval) throughout their life. A building is expected to meet the BCA in order to ensure that it provides minimum acceptable health and safety outcomes for building users. It is important that the building does this throughout its life, not just at the time of construction. Therefore, it is appropriate that the BCA or related regulations require that adequate maintenance is undertaken to ensure that buildings continue to meet the health and safety requirements of the BCA. Nevertheless, it may not be desirable for regulation to specify a particular maintenance regime, as

¹² Assuming that a market failure is present (which gives a prima-facie case for intervention to ensure that maintenance is undertaken), the efficient level of maintenance requirements will depend on the costs and benefits of ensuring that such maintenance is undertaken. The costs are likely to fall on building owners (compliance costs) and enforcement agencies (administration costs), while the benefits are likely to accrue to building owners and users. In assessing these costs and benefits a number of factors should be considered, including: the type of building; the cost of the maintenance; the consequences if the maintenance is not undertaken (including the likelihood, magnitude and incidence of adverse impacts); the costs of enforcement; and the relative merits of other regulatory and non-regulatory instruments that affect maintenance provision.

the most efficient maintenance procedures may vary from building to building (see box 5.4). (Chapter 7 looks at the administration and enforcement of maintenance requirements.)

Box 5.4 Maintenance strategies

Some features of buildings are potentially subject to failure. Maintenance is necessary to ensure that the building continues to function as intended and continues to meet the requirements of the BCA (that applied at the time of approval). There are a number of maintenance strategies open to building owners (and/or occupiers).

Reactive maintenance (or first generation maintenance) is essentially a 'run it until it breaks' strategy, where no efforts are taken to maintain the equipment. Rather, the equipment is repaired or replaced upon malfunction. An example of reactive maintenance would be to wait until a light bulb fails before replacing it.

Preventative maintenance (or second generation maintenance) refers to a number of maintenance actions that are undertaken on a time or use-based schedule. Actions are taken regardless of the state of the equipment and are intended to prevent failure or prolong the life of the equipment. An example would be regular servicing of a motor vehicle (at, say, every 10 000km) to prevent failure and prolong life.

Predictive maintenance (or third generation maintenance) attempts to detect the onset of equipment failure or degradation and undertake appropriate measures to prevent failure. It recognises that equipment failure is not necessarily linked to equipment age and, rather than age or use-related servicing, it attempts to monitor equipment condition and repair or overhaul when needed.

Reliability centred maintenance (RCM) recognises that not all equipment in a building (or factory, or aircraft, for instance) is of equal importance. RCM revolves around assessing each piece of equipment in a building and assessing its importance (ie how important or valuable are its outputs), the likelihood of it failing (in various ways), and the consequences if it does fail (eg is a failure going to be largely inconsequential to the operation of the building or is it crucial to its operation). Based on the answer to these questions, building owners can choose the most efficient form of intervention for each piece of equipment, bearing in mind that maintenance resources are scarce. For instance, if the likelihood of failure and/or consequences of failure are small, building owners may wish to adopt a reactive strategy and wait for equipment to fail before servicing or replacing. This might be the case for simple fixtures such as lighting. However, if the consequences of failure are large and likelihood is not insignificant the building owner may wish to explore ways of preventing failure through preventative or predictive maintenance. This might be the case for emergency warning systems or fire evacuation systems.

Sources: Sullivan et al 2004 and Moubray 1997.

Another avenue for helping to ensure that essential maintenance requirements are fulfilled is to ensure that prospective owners and occupiers are fully informed of their maintenance responsibilities. Some participants have suggested that this should be done before or at the time of building, purchasing or occupying a building:

[Maintenance costs] should be detailed fully, and clearly stated to the owner before a building is commenced, and when a building is sold. (NFIA, sub. 3, p. 4)

The problem is one of market forces where building owners/purchasers should be informed of the implications when purchasing a building with a high maintenance infrastructure. (BPIC, sub. 23, p. 64)

... documents describing performance-based solutions must be noted on the Certificate of Occupancy, and maintained in a central repository, to facilitate maintenance of performance-based solutions. (Fire Protection Association of Australia (Tasmanian Branch), sub. 35, p. 3)

The ICA submitted that insurers should be made aware of the design criteria used in constructing the building:

In attempting to determine an appropriate premium rate, it is essential for insurers to have an understanding of the design criteria for the building construction. Risk engineers who perform these inspections are familiar with the DTS provisions of the BCA, and any noted departures from these provisions may result in a higher premium than may be justified if it was known that an appropriate performance-based solution had been used. (sub. 38, p. 11)

Ensuring that potential occupants and owners (and insurers) are made aware of the life-cycle costs of a building will allow them to make more informed decisions and perhaps tradeoff these costs with the upfront savings in building or leasing costs. In turn, this will allow developers and industry practitioners to make more informed decisions when designing and constructing a building and should help in arriving at a more efficient solution.

RECOMMENDATION 5.4

Where a building solution imposes maintenance requirements throughout the life of a building, these should be required by regulation to be documented and be readily available to prospective owners and occupiers.

Deemed-to-satisfy solutions

The deemed-to-satisfy solutions are widely used, especially for class one buildings (housing), and are intended to provide a simple 'recipe book' building solution that is easy to comply with. It is important that these solutions represent efficient and effective building practices. One aspect of implementing effective deemed-to-

satisfy solutions is ensuring that they are updated regularly and continue to represent efficient building practices. This is discussed in detail in chapter 8 (see, in particular, recommendation 8.7) and below under ‘other objectives’.

The Australian Institute of Building (AIB) submitted that, in some instances, the use of standards in deemed-to-satisfy solutions may be inappropriate, as the standards themselves ‘are increasingly going to performance criteria that do not address such issues as alignment and dimensions’ (sub. DR67, p. 3). Indeed, in a submission to the Campbell report, the AIBS (2002) argued that in some places the deemed-to-satisfy solutions were already ambiguous. The use of performance-based standards in the deemed-to-satisfy solutions would appear to derogate from the aim of providing a simple ‘recipe book’ solution and may introduce ambiguities into the deemed-to-satisfy solutions.

One suggestion for ensuring that the deemed-to-satisfy solutions continue to be as useful as possible is that the ABCB should establish a national repository or database of approved alternative solutions. The ABCB noted that it intends to establish such a register ‘as a mechanism for initiating changes to the Deemed-To-Satisfy solutions’ (sub. 4, p. 15). Such a database may also be of use to designers who could refer to previous solutions that have been found to meet the performance requirements (although any intellectual property issues would need to be resolved). The database may also be useful for certifiers in assessing alternative solutions and for following the ‘precedent’ of previous designs.

In addition to the database, the ABCB could also consider including additional deemed-to-satisfy solutions for particular sections of the BCA. For instance, where multiple standards (such as an Australian and an international standard) meet the performance requirements of the Code, or where a particular alternative solution is widely used, the ABCB could reference all of these solutions as being ‘deemed-to-satisfy’. One area where this could prove confusing is when comparing a prospective alternative solution with the deemed-to-satisfy solutions as a method of proving compliance with the performance requirement. While more than one solution in this case may appear more challenging, simply proving equivalence with any one of the multiple deemed-to-satisfy solutions should be sufficient to prove compliance, as they all meet the performance requirements.

RECOMMENDATION 5.5

The ABCB should consider the feasibility of referencing more than one standard in the Code as deemed-to-satisfy solutions where multiple standards satisfy the performance requirements.

Community expectations of health, safety and amenity

While the level of community expectations is likely to vary (see section 5.1), BPIC noted that, through the ABCB's consultation process (see chapter 8), it can gain a relatively well-formed view of community expectations:

Community standards continue to evolve as part of the ABCB regulation development process, which includes significant periods of public review. In most instances the BCA amendment process is initiated by a Regulatory Document fully explaining the reasons for the proposed change and seeking public review for periods in the vicinity of 2 months. This provides an insight into community acceptance of the proposal including cost/quality trade-offs.

BPIC believe that the ABCB have been able to develop national regulations on a case by case basis with a reasonable understanding of community expectations and cost/quality trade-offs. (sub. 23, p. 15)

Further, some recent amendments to the BCA (and sections of the ABCB's future work program) may be seen as broadly addressing changing community expectations. For instance, recent energy-efficiency regulations are, to some extent, in response to growing community concerns over sustainability and the environment. It is also the case that, if the ABCB does not adapt the BCA to changing community expectations, it will be more difficult to keep consistency between jurisdictions, as community pressures may result in particular jurisdictions amending and varying the Code.

Nevertheless, a number of organisations have questioned whether the present technical requirements of the BCA (in particular, those relating to fire protection) are in line with community expectations:

While the mission of the ABCB is "to provide for efficiency and cost effectiveness in meeting community expectations for health, safety and amenity..." AFAC members believe that the current regulatory approach falls far short. While the evidence to support the following position is largely anecdotal at this stage, the strong relationships that AFAC members have with their local communities leave them in no doubt that community expectations go beyond the parameters currently articulated by the ABCB. (AFAC, sub. 28, p. 8)

The Alliance questions whether or not the overall community expectations are in fact accurately portrayed by the existing PBCA2004 performance requirements where the minimum acceptable requirements do in fact allow a building to burn down and a business, hospital or school to perhaps be forced to close its doors and/or shut down after a fire. Is it really acceptable for a building to burn to the ground as long as all the occupants safely escape? (Alliance for Fire and Smoke Containment, sub. 31, p. 2)

The BCA reflects the objective of delivering a minimum acceptable level of safety rather than a *community expected* level of safety. (National Fire Industry Association, sub. 3, p. 2)

The Campbell Report argued that the BCA did not meet community expectations with regard to quality and durability of housing:

Most consumers believe that codes and standards need to be expanded to include levels of quality of all work and not just minimum requirements in buildings. As noted by one consumer in describing their home renovations:

“Our experience has demonstrated that the Building Codes and standards are not comprehensive enough. There is a huge void between the codes and standards and recognised minimum levels of quality in a building.” (2002, p. 74)

And the Australian Elevator Association argued that:

Taking the Premises Standard as an example of the ABCB's most recent major effort to determine community expectations including cost-quality tradeoffs, we believe the ABCB have not adequately carried out that task. The proposed regulation appears to be based on too narrow consultation and input and even though the Regulatory Impact statement does not give a good economic outcome the ABCB still chose to publish the draft. (sub. 44, p. 5)

Thus, it appears that there are differing views on the success of the BCA in meeting community expectations. These differences may partly reflect confusion about the objective of the BCA (to reflect minimum acceptable standards rather than best-practice standards) and about the appropriate coverage of the BCA (see chapter 6).

Plain language

As discussed in chapter 2, the ABCB has undertaken steps to make the BCA more user-friendly, including:

- the introduction of a companion guide to volume one that clarifies and provides illustrations and examples of the BCA requirements; and
- the inclusion of additional interpretive material and information, such as diagrams, examples and explanations, within volume two of the Code.¹³

In an effort to improve the accessibility of the Code, the South Australian Government has released a ‘South Australian Housing Code’, which is intended to be a plain language manual to aid in the construction of housing. The manual gives a set of building instructions that are deemed by the South Australian Building Act to ‘satisfy the performance requirements of the BCA for commonly used materials and methods of construction’¹⁴. The manual covers certain class 1 and class 10

¹³ The ABCB undertakes a number of other activities to help users to understand building regulation, including training, education and promotion activities, and the provision of supplementary material such as guidelines. These activities are discussed in chapter 9.

¹⁴ See http://www.planning.sa.gov.au/building_policy/html/sahc.html (accessed 16 November 2004).

buildings (common house constructions) and is written in a manner that is intended to be more accessible for industry practitioners working in this area.

There are mixed opinions about the degree of success that the ABCB has achieved in making the BCA more user friendly. The Laver Review found that 84 per cent of survey respondents found the BCA96 user friendly, and concluded that the:

BCA96 significantly improved the user friendliness and plain language of the previous edition of the BCA. In particular, BCA volume 2 covering houses and outbuildings was written in user friendly style and includes explanatory notes and diagrams. (2000, p. 17)

However, the Campbell Report found that:

... the code is not written in a *plain English* format that can be easily understood by builders in the home building industry who may have varied education and language backgrounds. The overall view gathered by the Committee is that the Codes are too complicated and not written simply for end users. (2002, p. 75)

Further, a number of submissions have suggested that the BCA is difficult for some in the industry to access and understand:

The BCA is not designed for builders to understand but rather comprises a legal document that is subject to substantial interpretation and guesswork. Whilst it is a good reference tool for engineers, architects and legal practitioners, it is not understood by builders.

In particular, from the perspective of both builders and owners, the use and application of the deemed to satisfy provisions and the alternative solutions need to be clarified and simplified. (Nigel Lilley, Builders Registration Board of Western Australia, sub. 40, p. 2)

... the BCA could be written in “plain English” to make it easier to use. (Queensland Government, sub. 41, part 2, p. 9)

Access to the BCA by building practitioners continues to be a significant area of concern. ... access by builders to the BCA remains somewhat limited and is in part due to the bulk of the document and its relative complexity. (Master Builders Australia, sub. DR82, p. 4)

Thus, it appears that the language and style of the BCA is not easily accessible to all industry practitioners. In particular, builders and subcontractors may have difficulty understanding the BCA as it is currently presented. Nevertheless, new technology (such as the MiniCode Generator, discussed in chapter 8) may allow the ABCB to make the BCA more easily understood and tailor the language and examples to particular audiences. Further, greater use of guidance materials such as the guide to volume one or additional guidelines (see chapter 9) may assist the ABCB in making the BCA more easily understood.

FINDING 5.4

The ABCB has implemented a number of strategies aimed at improving the clarity and accessibility of the BCA. However, it appears that the BCA may still be difficult for some users, in particular builders and tradespeople, to access and understand.

RECOMMENDATION 5.6

The ABCB should continue to examine ways for the BCA to be expressed more clearly and simply, to articulate building requirements better and to enable access by all levels of building practitioners.

Other objectives

The ABCB's fulfilment of its objectives to make the code efficient, cost effective and representative of modern, minimum, least cost solutions is largely reliant on the performance of other BCA-based objectives. For example, efficiency is an overriding objective and the ABCB's performance against this objective is largely pursued as part of other board objectives being met.

The ABCB primarily uses three strategies to ensure that the technical solutions contained in the BCA are efficient and represent minimum and modern solutions:

- The use of a performance-based methodology — as discussed above, performance-based regulations allow designers and builders to use any building solution that meets the performance requirement. Thus, as new and possibly more modern or efficient solutions are created, they can be utilised immediately without the need for them to be written into prescriptive regulations. In this manner, the existence of a performance-based Code should allow and encourage modern and efficient building solutions.
- Regularly updating the deemed-to-satisfy solutions — as a significant portion of buildings are constructed using deemed-to-satisfy solutions, it is important that these are regularly updated so as to reflect minimum, modern and efficient building solutions.
- Research into new and innovative building solutions — by coordinating research into new building methods, the ABCB endeavours to reduce building costs, especially in areas regulated by the Code (see chapter 9).

It is difficult to assess the extent to which the BCA has succeeded in pursuing minimum, modern and efficient building solutions. As discussed earlier, it appears that the performance-based methodology adopted by the BCA has brought a number

of benefits. In particular, box 5.1 outlined several building projects where the use of performance-based regulation and alternative solutions had led to significant cost savings and more modern and innovative designs. Nevertheless, it has been suggested that the deemed-to-satisfy solutions have not been updated frequently enough and, thus, they may not continue to embody up-to-date building practices (see chapter 8). All the same, the ABCB Chairman has recognised the importance of updating these sections of the BCA:

... a significant part of the ongoing work of the ABCB relates to the need to continually maintain and update the existing BCA and its application (sub. 4, p. 15)

In general, submissions have made little comment as to whether the BCA itself actually represents modern, minimum or efficient building solutions. This may reflect confusion surrounding the objectives of the IGA. It may also reflect difficulties associated with estimating the level of building performance that should be embodied by the BCA. First, any building solution contained by the BCA must meet community expectations of the minimum acceptable level of performance. As discussed in section 5.1, judging community expectations is not straightforward and it is difficult to know what level of performance the BCA is expected to embody. Second, even if the community expected level of performance can be determined, without in-depth technical knowledge, it is difficult to know whether the BCA actually represents these levels of performance.

6 Code coverage

This chapter assesses the past performance of the Australian Building Codes Board (ABCB) with regard to objective 7 of the Inter Government Agreement (IGA) and assesses the appropriateness of this objective for the future. This objective essentially tasks the ABCB to work with other agencies in order to encourage consolidation into the Building Code of Australia (BCA) of all mandatory requirements affecting buildings.

In the past, Code coverage has been restricted essentially to certain mandatory requirements in relation to health, safety and amenity (narrowly defined). More recently, a fourth item, sustainability, has been added and energy-efficiency standards have been and are continuing to be developed. In addition, work has been underway for some time to design standards for access for people with disabilities.

This chapter, after describing in section 6.1 the sorts of mandatory requirements impacting on buildings that are within the traditional areas of health, safety and amenity, assesses in more detail possible changes to coverage, as follows:

- 6.2 — access for people with disabilities
- 6.3 — plumbing and gas installation
- 6.4 — electrical installation and telecommunications
- 6.5 — occupational health and safety
- 6.6 — sustainability and the environment
- 6.7 — property protection from fire.

The Commission, in considering expansions of the Code, has largely been guided by work already underway and concerns raised by interested parties.

In addition to these areas, there is scope for Local Governments to introduce additional requirements to those contained within the Code. Section 6.8 looks at the impact that Local Government planning requirements can have on building regulations.

Work has already been undertaken on the possible expansion of the coverage of the Code. The BCA 21 Committee of the ABCB has been responsible for developing

the next BCA, including expanding coverage, where this is deemed appropriate.¹ The Committee comprises representatives from industry and government. It is conducting an analysis of the broad framework of goals, objectives and structure of the BCA, including technical content. The program includes both policy and technical development phases. Assessment and consideration of the research and development projects at the national and international level are also part of the review and feed into the next generation BCA development. The Committee intended to rework the Code with a ‘top down’ approach — starting with objectives, leading to performance standards and then deemed-to-satisfy requirements; and conduct further work on fire safety issues (National President, Australian Institute of Building Surveyors, pers. comm., 21 April 2004).

The BCA 21 program is divided into three phases (and is currently in transition from the first to the second phase):

- the first phase has been policy development that included the identification of the issues and scope, framework and conceptual structure for consideration for the next generation BCA, including consideration of coverage and consolidation issues;
- the second phase is the technical component that will focus on the drafting of the technical provisions within the identified scope, framework and structure; and
- the third phase will involve the implementation process, which includes transferring of information through education and training programs.

The ABCB prepared 18 scoping papers on a variety of topics to assist in this program, although many of these papers are now out-of-date.

6.1 Non-BCA mandatory requirements impacting on building

Certain regulatory requirements that affect building are not contained in the BCA. These requirements have the potential to be inconsistent with the BCA and/or to introduce additional inconsistencies across jurisdictions.

The Tasmanian Building Regulation Advisory Committee (BRAC) cited the example of the standards being developed by Food Standards Australia New Zealand for construction of food premises (known as Standard 3.2.3 Food Premises and Equipment) resulting in building construction standard issues being determined

¹ The work now largely rests with the recently established ‘Core Strategic Group’ (ACCB, pers. comm., 9 November 2004).

outside the BCA. The Committee also referred to the national standards for child care facilities, where standards over and above the BCA are implemented as a result of licensing or funding requirements of Federal, State and Territory Governments (sub. 29, p. 1). Particular requirements may also apply to a range of workplaces such as abattoirs and knackeries, prisons and gaols, lead processing facilities and spray booths. Table 6.1 contains a listing of such mandatory requirements. While this is not an exhaustive list, it is clear that there are many.

Table 6.1 Examples of non-BCA mandatory requirements affecting building

<i>Regulatory area</i>	<i>Regulatory area</i>
Access for people with disabilities	Aboriginal housing
Fire safety	Heritage buildings
Occupational health & safety	Requirements for specialised buildings such as:
Sanitary plumbing, water supply & sewerage	
Electrical installations	Premises for lead processing
Septic tank installations	Abattoirs, knackeries
Gas installations	Crematoria, vaults, mortuaries, churches
Storage of dangerous goods	Spray booths
Food premises	Dairies
Child care facilities	Hairdressers' premises
Accommodation: residential (boarding houses, guest houses, hostels, motels)	Dental surgeries and chiropractors Premises involving skin penetration
Accommodation: supported residential services	Prisons and gaols Pharmacies
Hospitals, nursing homes, health care buildings	

Sources: Various submissions, BCA.

The Laver review commented:

The ABCB is also currently investigating the consolidation of energy efficiency, aged care, food premises, and maintenance requirements in the BCA. There are potentially many other areas which could be consolidated. These additional areas are often covered by separate pieces of State and Territory legislation outside of the building legislation. Nevertheless, if the requirements relate to building standards, they potentially should be consolidated into the BCA. (2000, p. 18)

The Building Products Innovation Council (BPIC) supported the ongoing effort to consolidate all building related matters within the one Code (sub. 23, p. 67). The New South Wales Government also strongly supported action by the ABCB to achieve consolidation of building requirements (sub. DR87, p. 2).

As outlined in chapter 3, consistency and consolidation of regulatory requirements constitute good regulatory practice. The checklist of regulatory quality (box 3.1) contains a number of criteria that point to the desirability of consolidation and consistency:

- accessible, transparent and accountable
- integrated and consistent with other laws
- communicated effectively
- enforceable.

Consolidation results in building requirements that are more easily accessible to practitioners in the industry. It is not good practice to have (potentially conflicting) requirements for building contained in separate documents without, at the least, referencing these other requirements. The New South Wales Government submitted:

Consolidation ... will have a positive impact in terms of ensuring that all relative provisions are considered and addressed at the appropriate design and construction stages and alleviate the need for costly and time consuming remedial works when certain provisions are overlooked or unknown. (sub. DR87, p. 2)

Further, the ABCB Board Member for Tasmania commented that '[a] strong consolidation objective ... will reduce the variations and additions' (sub. DR83, p. 6).

However, it is acknowledged that the consolidation objective could contribute in the longer term to making the BCA a large and cumbersome document, that may become less useful to building practitioners. Indeed, some would say that the Code is already too long. As the Municipal Association of Victoria pointed out:

... incorporating all mandatory requirements will impact on the size and complexity of the Code. An alternative may be to consider referencing other documents/regulation as it does with Australian Standards. (sub. DR71, p. 6)

Jurisdictions have dealt with the issue of consolidation in different ways. The Tasmanian Government requires that any provision affecting building required by another area of government has to be in the Tasmanian appendix to the BCA. The Tasmanian building legislation includes a provision that it prevails over any other Act, regulation, rule, by-law, guidelines, planning instrument, standard, condition, determination or directive made under any other Act relating to the design of any building, building or plumbing work. The Tasmanian BRAC suggested that adoption of a similar policy by the Australian Government would be appropriate (sub. 29, p. 1). Victoria and the ACT also have within their appendices to the BCA, a list containing some, but not all, of the relevant legislation that contains a building

requirement. In Western Australia, there are a number of regulations that alter the BCA requirements (for example, public health regulations) that are not contained in its appendix to the BCA.

The Queensland Government stated that it is currently consolidating the following standards into the Queensland Development Code² (QDC):

- health standards (hospitals, food premises, acupuncture clinics etc);
- workplace health and safety standards;
- external noise (airport flightpaths, rail corridors etc);
- on-site standards for building related aspects such as access ways and parking areas, retaining walls, site drainage etc. (sub. 41, part 2, p. 12)

The Queensland Government has included specific provisions for that State in the QDC and intends to incorporate other pieces of legislation that contain building related provisions within that Code (rather than the BCA), and where there might be a conflict with the BCA, the QDC prevails.³ However, this would appear to undermine the intention that the BCA serve as a nationally consistent document regulating building standards across the country.

Given the wide range of requirements contained in non-building legislation that impact on buildings, it appears the incorporation of all these requirements into the BCA is not achievable in the near future. Where this is not feasible, the Board should work to remove conflicts in objectives and ensure other mandatory requirements are easily accessible to the industry. One approach, at least in the short term, may be to require that all these extra requirements be included in an appendix to the Code, as is already done by Tasmania. Including additions to the BCA is an effective mechanism for assisting practitioners in each jurisdiction by providing one point of access for building regulations. Second, it should help ensure that these extra building regulations do not conflict with the requirements of the BCA, or at least make them transparent. Further, it may help identify areas where these regulations are inconsistent across States and Territories, and allow jurisdictions to work towards reducing these inconsistencies. The Commission endorses such an approach.

² The Queensland Development Code provides a framework within which Queensland-specific building standards that are outside of and in addition to the BCA, are consolidated into a single document.

³ See <http://www.dlqp.qld.gov.au/Default.aspx?ID=247> (accessed 30 July 2004).

FINDING 6.1

There are various mandatory requirements impacting on building that have not been incorporated into the BCA.

RECOMMENDATION 6.1

The ABCB should continue to work on incorporating into the BCA, as far as practicable, all mandatory requirements affecting building.

RECOMMENDATION 6.2

The ABCB should explore ways to make all mandatory requirements affecting building accessible and transparent. Avenues to explore include:

- *the States and Territories could require all state/territory-based mandatory requirements affecting building to be included in their appendices to the BCA along the lines of the Tasmanian model and could ensure that the BCA requirements prevail over any other mandatory requirements; and*
- *the Australian Government could include an appendix in the BCA that lists all Australian Government mandatory requirements that impact on building.*

6.2 Access for people with disabilities

The BCA contains specific provisions for the use of buildings by people with a disability, including requirements for access to and within buildings and provision of appropriate sanitary facilities.

The accessibility of buildings for people with disabilities is also affected by the application of the obligations of the *Disability Discrimination Act 1992* (DDA). The DDA, which commenced operation in March 1993, makes it unlawful to discriminate against a person on the ground of disability in a range of areas, including employment, accommodation, education, public transport and access to premises. However, the Act does not require that building performance for people with a disability be provided where it would cause ‘unjustifiable hardship’ for an owner or operator of premises.

The DDA in effect contains the objectives, but not the technical details, of how buildings should perform for people with a disability. In addition, the BCA does not yet contain provisions that would mean compliance with the DDA. The DDA is complaints-based legislation and such complaints to the Human Rights and Equal

Opportunity Commission (HREOC) and to several equivalent State and Territory bodies have highlighted this difficulty.

In April 2000, an amendment was made to the DDA to allow the Australian Government Attorney-General to formulate Disability Standards for Access to Premises (called the Premises Standard). The intention is that the specific accessibility requirements of the Premises Standard would replace the general 'non-discrimination' provision of the DDA for access to premises. Thus, owners and developers of buildings used by the public would be able to meet the objectives of the DDA (as they apply to buildings) by meeting the requirements of the Premises Standard. Compliance with the Premises Standard is intended to create greater certainty for the community, building developers, owners or operators of their obligations under the DDA. An 'unjustifiable hardship' provision within the Premises Standard will apply to existing buildings only. While people with disabilities can still lodge complaints, these will be dismissed where owner/managers have shown that they have met the performance requirements within the standard by either deemed-to-satisfy provisions or an alternative solution.

The ABCB's Building Access Policy Committee has identified changes to the BCA (BCA96) which, if adopted, would allow the BCA to form the basis of a Premises Standard. Following extensive public consultation, a draft RIS on 'Proposals to formulate Disability Standards for Access to Premises and to amend the access provisions of the BCA' was released for public comment in February 2004.

The draft RIS provides an analysis of the social and economic impacts of the proposals. It considered a range of options. A market based approach was discounted as the existence of the DDA meant that the broad legislative direction has already been set (ABCB 2004b, p. 5). Possible options beyond the development of a Premises Standard were not considered in recognition of the request made by the Australian Government to revise the BCA so that it could form the basis of the Premises Standard. The draft RIS concluded that the development of a Premises Standard and a revised and aligned BCA is the only option that will provide consistency and certainty for people with a disability, building owners and developers through the codification of the DDA. The draft RIS did not consider alternative revisions of the BCA to that suggested by the ABCB Building Access Policy Committee.

The draft RIS estimates the present value of the costs of implementing the Premises Standard to be \$26.4 billion, while the present value of the quantifiable benefits is \$13 billion (ABCB 2004b, p. 10). It refers to the unquantified benefits expected to derive from the Premises Standard's adoption as being 'extremely significant' and the need to consider these in addition to the quantified estimates. It said that '[t]he unquantifiable benefits include access for the elderly and parents with prams as well

as the potential for less reliance to be placed on carers' (ABCB 2004b, p. 9). Further, the RIS acknowledges the inherent difficulties in quantifying intangible outcomes and the lack of substantive information and data on many aspects.

The Disability Council of NSW commented that greater consideration needs to be given to the social costs borne by people with disabilities for an effective assessment. It said:

... assessment of these cost implications fail to consider the massive social cost borne by people with disabilities who are restricted from schooling, work and social opportunity, the higher welfare costs imposed by their inability to find work in an inaccessible environment, the costs this transfers onto families or the cost of maintaining an alternative system to accommodate their needs. (sub. DR68, p. 4)

Considerable feedback has been received on the draft RIS. Following an assessment of comments and any necessary revisions, a final proposal is being developed. This proposal will be forwarded by the ABCB to the State and Territory Governments, as well as to the Minister for Industry, Tourism and Resources and to the Australian Government Attorney-General. Final proposals for change are proposed to be submitted to Ministers early in 2005. The Commission understands it is unlikely that any Premises Standard will be introduced before May 2006.

A Protocol for Administering Building Access has also been developed with the aim of ensuring a consistent approach to the implementation of the access requirements for specific buildings. Under the Administrative Protocol, each State and Territory building control administration would set up or designate a methodology for determining whether a proposed Alternative Solution meets the Performance Requirements of the revised BCA and whether a provision in the revised BCA applied to a certain design would result in unjustifiable hardship for a particular development in an existing building. The Protocol requires that each State and Territory establish access panels to make decisions on access-related issues that are referred by authorities responsible for building approvals in each jurisdiction. The Protocol will also define triggers that describe what level of new building work would prompt upgrading beyond the new work in part, or all, of an existing building.

The Protocol will not form part of the Premises Standard, but it will be open to State and Territory Governments to use the Protocol or develop their own mechanisms for determining access-related issues. People will continue to have the right to lodge a complaint with HREOC and the courts if they believe that access to premises has been or will be compromised by the decision of an access panel. A draft Protocol is currently being finalised and will be available for public comment in the near future.

The Productivity Commission (PC) report on the Review of the *Disability Discrimination Act 1992* (PC 2004c) noted that the proposals for formal links between the BCA and disability standards on access to premises would help to address the difficulties posed by the lack of specific technical details contained in the DDA. The Commission found that the DDA appeared to have had some impact on making new buildings more accessible, although it has been less effective in improving the accessibility of existing buildings, and the proposed Disability Standards will only address this issue for refurbished buildings (PC 2004c).

Further, the Commission considered that it was not appropriate to restrict ‘unjustifiable hardship’ to existing buildings only. The draft RIS for the Premises Standard shows that many adjustments can generally be made to new buildings at little cost. However, some have the potential to increase the costs of certain types of new buildings (for example, two storey offices and restaurants) by up to approximately 60 per cent. The report found that these standards have the potential to restrict competition and distort resource allocation (PC 2004c, chapter 6). Defences such as unjustifiable hardship are important to ensure that the DDA provides the necessary checks and balances. These defences encourage changes where the benefits to the community outweigh the costs and discourage changes where costs outweigh the benefits. Removing these defences could result in regulations that impose significant costs on organisations covered by the DDA. Accordingly, the Commission recommended that the DDA be amended to allow for unjustifiable hardship in all areas of the Act that make discrimination on the grounds of disability unlawful. The Commission also recommended that disability standards not be allowed to alter in a fundamental way the scope of the DDA (including the need to retain the provision for unjustifiable hardship where it applies) (PC 2004, p. 409).

Issues raised by participants

HREOC did not consider it necessary to include an unjustifiable hardship provision in the standard for new buildings. It said:

It has been my understanding that the intention of the Building Access Policy Committee (BAPC) in developing the Premises Standard was to define a level of access required for new buildings that took into consideration the notion of unjustifiable hardship as part of the negotiation. ... Having such a provision reduces the certainty that all concerned have sought to achieve. (sub. DR60, p. 3)

Blind Citizens Australia, representing people who are blind or visually impaired, commented on some specific aspects of the BCA and Premises Standards. It recommended that the BCA be amended such that premises are only assessed as being compliant if tactile ground surface indicators are installed according to the

deemed-to-satisfy provisions (sub. 20, p. 3). This would ensure consistency and predictability in the design of buildings and aid the visually impaired in knowing what to expect.

In addition, it indicated that the draft Premises Standard contains few deemed-to-satisfy provisions that specifically address the access needs of people who are blind or visually impaired. It stated:

The draft Premises Standard also does not include instructions for how to provide:

- braille, raised tactile or audible maps
- braille, raised tactile or audible signs for finding services or facilities in a premises or
- safe and detectable paths to a building from a street. (sub. 20, p. 8)

It also identified three concerns related to the proposed Administrative Protocol. These are the role of third parties, the selection of access experts and the voluntary nature of the protocol. In regard to the first, it recommended that people with disabilities should be able both to refer a matter to an Access Panel and make submissions to an Access Panel. With respect to representation, it considered that all members of an Access Panel should have extensive and compulsory training in disability access issues. For the latter, it recommended that an alternative solution or decision that unjustifiable hardship exists must be referred to an Access Panel during the first two years of operation of the Protocol and Access to Premises Standard (sub. 20, pp. 9–11).

The DDA does not cover discrimination occurring within residential dwellings. Only matters covered by the DDA will be dealt with by the Premises Standard. However, the Disability Council of NSW recommended that the Australian Government mandate building code requirements for both commercial and residential premises to meet the objectives of its Disability Strategic Plan. It also recommended that the ABCB adopt adaptable housing design (AS 4299 Adaptable Housing) as a minimum building requirement due to its long-term cost reductions and its positive impact on the health, safety and amenity of all citizens (sub. 26, pp. 3–4, 7). Such an approach is supported by the Australian Network for Universal Housing Design. This organisation is calling for access provisions in the BCA for all new and extensively modified housing to be based on universal design principles (another term for adaptable housing). Essentially, universal design recognises that people's needs and abilities change throughout life and provides housing which is initially more accessible for everyone and which can be adapted at a future date to suit individual needs (sub. 2, p. 1). The supporters of universal design state it is both more desirable and cheaper to build houses able to cater for all stages of one's life than to have to make major alterations later.

The Brisbane City Council also considered that minimum adaptable housing standards that encourage safe and independent mobility are urgently needed. It said that ‘[b]uilding adaptable housing in the first instance is far more cost effective than retrofitting a house to incorporate adaptable housing features’ (sub. DR72, p. 1). The ABCB has advised that it is conducting research into adaptable housing. Its aim is to provide information that can be used by governments and industry to plan for the future supply of accessible housing, including the implementation of regulatory or other measures, to stimulate appropriate supply. Some participants regarded that adaptable housing should be considered as a sustainability issue.

HREOC commented that ‘the BCA does not currently address adaptable or universal housing design, fit out issues (such as the height of reception desks, switches or internal fixtures such as telephones) or signage, other than very specific areas relating to lifts, toilets and egress’ (sub. DR60, p. 1).

In relation to the requirements for egress for people with disabilities, the Fire Protection Association (FPA) Australia noted that when considering emergency evacuation of occupants with disabilities, ‘building codes and standards need to be reviewed to provide a solution of safe evacuation of all occupants’ (sub. 19, p. 13). The Australasian Fire Authorities Council (AFAC) identified a number of strategies for egress provisions and fully supported a speedy resolution of this issue (sub. DR79, pp. 10–11).

Similarly, Blind Citizens Australia recommended that emergency egress provisions for people with disabilities be addressed as a matter of urgency (sub. 20, p. 11). There are currently no technical (deemed-to-satisfy) provisions for emergency egress for people with disabilities in the BCA. Research is being undertaken in this area for future inclusion in the Premises Standard/revised BCA.

The Tasmanian BRAC (sub. 29, p. 7) considered that aligning the BCA with the Premises Standard is a compromise as the ideal solution would have been for one set of requirements in the BCA that are not duplicated in the Premises Standard. The requirements of the BCA could then be referred to from the Premises Standard, if required.

Similarly, the Queensland Government felt that consideration could be given to a framework where access requirements are dealt with in the BCA and where the DDA includes a reference to the BCA as the acceptable standard. It also said that:

The Protocol is currently being considered as part of the proposed access proposals, but if it remains an advisory panel with no enforcement powers, it may not be of much benefit to industry. (sub. 41, part 2, p. 10)

The Australian Elevator Association (AEA) was critical of the ABCB and its processes in regard to access for people with disabilities and referred to the ‘poor quality of the draft Premises Standard and its RIS’ (sub. 44, p. 11). It considered that the Board had not properly implemented some of the Council of Australian Governments’ (COAG) guidelines.

RECOMMENDATION 6.3

The ABCB should continue its work on amending the BCA provisions in relation to the performance of buildings for access for people with disabilities. The access provisions of the BCA should be amended and linked to the Disability Discrimination Act 1992 so that compliance with the BCA would also ensure compliance with obligations under the Act, including allowance for an ‘unjustifiable hardship provision’ for both new and existing buildings.

6.3 Plumbing and gas installation

Generally, on-site plumbing can include water plumbing, sewerage plumbing, stormwater plumbing, on-site gas fitting (in some States) and mechanical plumbing (dealing with heating, cooling and ventilation, but only in some States). Of these, only the technical requirements for stormwater plumbing are currently included in the BCA.

State and Territory Governments have the responsibility for regulation of on-site plumbing services, in some cases delegating authority to local water authorities or councils. All jurisdictions’ plumbing regulations cover performance requirements and acceptable solutions for plumbing works by reference to a range of Australian Standards, relevant water authority by-laws and jurisdictional plumbing codes. The AS/NZS 3500 Plumbing Codes series is referenced across Australia for technical requirements for installations and establishes acceptable standards for plumbing related materials, products, designs and installations.

The Fisher Stewart Report on the Australian On-site Plumbing Regulatory Framework (2000) highlighted marked disparities in regulatory regimes for plumbing between various States and Territories. The Report did not include any analysis or make any recommendations, but it was apparent from the information collected that opportunities existed for rationalisation of the regulation of plumbing that could provide benefits to industry and the community.

The 2000 Laver review supported the establishment of the National Plumbing Regulators Forum that would have the objective of developing the Plumbing Code of Australia (PCA). The PCA was to be consistent in scope and structure with the

BCA. The inclusion of plumbing in the BCA was discussed in the Laver Review. Some submissions to the review had recommended all on-site activities should be included in the BCA, to make the BCA comprehensive and to avoid overlaps with other regulations. A user survey found 41 per cent believed inclusion of plumbing was ‘very important’ and a further 36 per cent classified it as ‘important’ (Laver review 2000, p. 29).

However, further work concluded that cost efficiencies from including plumbing in the BCA would be small and that ‘significant sections of the plumbing industry were strongly opposed to the incorporation of plumbing in the BCA’ (Laver review 2000, p. 29). Users of the BCA also rated the inclusion of plumbing as a lower priority than other areas such as energy efficiency and access for people with disabilities. Based on this, the ABCB chose not to pursue the integration of plumbing in the short term. The Laver review suggested that further consideration of the incorporation of plumbing in the BCA could be undertaken once the national plumbing code was developed and widely accepted (Laver review 2000, p. 30).

A National Plumbing Regulators Forum, convened by the Plumbing Commissioner in Victoria, with representatives from all States and Territories, was established in 2002 to draft the PCA and it was finalised early in 2004. The objectives of the establishment of the PCA is to provide for a consistent, efficient and effective regulatory environment for plumbing activities to achieve appropriate levels of public health, safety, resource conservation and amenity across Australia. Particular goals include fostering water and energy conservation, encouraging best practice, and ensuring compatibility with the BCA. Each State and Territory may adopt the PCA subject to the variation or deletion of some of its provisions, or the addition of extra provisions. These variations are provided in appendix 3 to the PCA.

The PCA consists of two parts, presented in a single volume. Part A of the PCA is a set of performance-based technical provisions for the construction, installation, replacement, repair, alteration and maintenance of plumbing and drainage installations throughout Australia. It allows for variations for climatic and geographic conditions. Part B defines the processes for certification of plumbing products that require statutory authorisation. While the PCA has been written on a performance basis, prescriptive solutions obtained from published Australian Standards and joint Australian Standards/New Zealand Standards are also referenced, where applicable, as deemed-to-satisfy solutions.

Arguments for and against incorporation into the BCA

There would be advantages in incorporating plumbing requirements into the BCA. On-site plumbing is an integral part of the building and construction process and

most plumbing is carried out in a building context. A major benefit would be that a consolidated BCA would provide a ready source of information to all participants in the construction industry about the technical requirements for both building and on-site plumbing. This would promote greater consistency of regulatory approach within these two activities of the broader construction industry.

The MBA expressed support for incorporation of the plumbing regulations into the BCA as '[s]uch adoption will make access to codes and regulations simple and easier and provide greater certainty to industry' (sub. 24, p. 4). BPIC (sub. 23, p. 60) and the Property Council of Australia (PCA) (sub. DR93, p. 17) also supported incorporation of plumbing requirements into the BCA. Such an approach could well pave the way for incorporation of other on-site building related activities (such as on-site electrical work; discussed in the next section) into the BCA.

The ACT Government stated:

... avoidance of duplication and overlaps between various regulatory approaches is vital. The potential dangers of such overlap are already evident, for example, in the development of the Plumbing Code of Australia.

... prima facie, the existence of separate, jurisdictionally-based approaches to these matters [plumbing, gasfitting and electricity technical standards] as they relate to building and construction appears to raise the issue of real or perceived duplication and overlap. (sub. 48, p. 2)

The Queensland Government commented that the benefit of consolidating plumbing (and electrical codes) into the BCA is unclear as different trades use these (sub. 41, part 2, p. 12). Incorporation would mean that plumbers (and electricians) would need to access and sort through the whole combined Code.

There are costs in attempting to incorporate plumbing requirements into the BCA. Provided that national consistency in plumbing requirements is achieved across jurisdictions through the PCA and these are not in conflict with the BCA, are these additional costs warranted? As some jurisdictions have different Ministers and departments responsible for building and plumbing regulation, the appropriate Ministerial and departmental arrangements would need to be resolved. In addition, the form of representation from the plumbing industry and the appropriate structures within the ABCB would also need resolution. There would be problems in defining what plumbing covers as there are differences in the scope of plumbing across jurisdictions. Incorporation of the PCA into the BCA would make it a very lengthy document that could become too cumbersome for both building practitioners and plumbers. In the past, there has been considerable resistance from the plumbing industry to attempts to consolidate plumbing requirements into the BCA (Laver review 2000, p. 29). Given this lack of support from the plumbing industry, the Commission questions whether any such attempts would be successful.

A considerable body of opinion favoured keeping the codes separate, while removing inconsistencies between them. The Tasmanian BRAC commented that ‘harmonisation is the key’ and argued the important task is to ‘reduce inappropriate overlaps and duplications’ (sub. 29, p. 9). The South Australian Government stated:

The national Plumbing Code of Australia will provide for plumbing what the BCA has provided for the building fabric. It is closely aligned with the BCA and should eventually be seen as a companion document regulating plumbing on a nationally consistent basis. (sub. 36, p. 4)

In view of pressure being placed on the Board to include sustainability as a goal and measures to regulate for energy and water use efficiency, the Chairman of the ABCB commented that:

The overlap between building and plumbing in these sustainability areas is considerable, even further underpinning the necessity for greater alignment of the regulatory Codes. (sub. 42, p. 4)

Indeed, the Water Services Association commented on the need to ensure there is alignment between the approaches of the BCA, PCA, energy and telecommunications regulators who have varying and overlapping responsibilities affecting the built environment (sub. DR63, p. 2).

The Chairman of the ABCB has proposed the establishment of a regulatory regime for plumbing that mimics the ABCB — an IGA for plumbing and the establishment of a Plumbing Code Board (sub. 42, p. 4).

The Queensland Government said:

While there is no particular advantage in combining the BCA and plumbing codes into one document, the industry and codes would benefit from a more integrated approach to administering these documents. A draft Plumbing Code has now been finalized and states and territories are currently establishing legal structures to administer it. Therefore, it may be appropriate that the Laver proposal be revisited. (sub. 41, part 1, p. 2)

The NT Minister for Lands and Planning considered that the proposed PCA should continue to receive support from the ABCB but that a separate administration for the PCA could not be justified (sub. 30, p. 2).

In relation to fire safety, the FPA commented that if the ABCB were to incorporate standards such as the PCA into the BCA, all references to fire equipment should be deleted and a National Fire Protection Code should be developed (sub. 19, p. 16). It said that:

Such deletion would avoid confusion between BCA requirements and extant Australian Standards dealing with fire hydrants and the like. (p. 8)

The Commission recognises that incorporating plumbing requirements into the BCA would necessarily involve a diversion of resources from the Board's current work program and an ongoing commitment to any new structures that are set up.

FINDING 6.2

Incorporating the Plumbing Code of Australia (PCA) into the BCA would not seem to be warranted at this stage.

RECOMMENDATION 6.4

The ABCB should continue to work with the National Plumbing Regulators Forum to identify and resolve differences and remove unnecessary overlap between the BCA and the PCA and on-site gas requirements.

6.4 Electrical installation and telecommunications

The States and Territories regulate on-site electrical wiring in buildings. In the past, these services were regulated by the electricity supply authorities.

The review of the ABCB in 2000 recommended that, while not an issue for the ABCB or the BCA at that stage, the Commonwealth Minister should write to the Chair of the Electrical Regulatory Authorities Council with a request that the Council address the question of adopting a national code for electrical connection and metering in buildings (Laver Review, p. 2).

The Chairman of the ABCB commented that progress in aligning electrical regulation with the BCA has been limited and considerable obstacles need to be overcome. He said:

The necessity for change is probably less pressing in this area but it would be facilitated if it is possible to successfully implement the types of changes proposed for plumbing, to act as an example of what constructive discussion can achieve. (sub. 42, p. 2)

The National Electrical and Communications Association (NECA), representing 90 per cent of the electrical communications installation market, expressed the view 'that building regulation should not be extended to embrace the electrical and communications sectors beyond its present coverage' (sub. 9, p. 1). The reasons advanced for this are that the regulations covering the electrical and communication sector are much wider than just the building industry; the objectives of the regulation would be undermined if responsibility were to be transferred to the ABCB; and this sector is already achieving uniform regulation across Australia and harmonisation with international standards. NECA, however, did express concern about an attitude of ambivalence that has crept into the Regulators' commitment to

national uniformity and harmonisation. It believes there is scope for rationalisation of the management structure for electrical regulation (sub. 9, pp. 1–2).

BPIC considered that the BCA should address electrical requirements (sub. 23, p. 60). The MBA expressed the same view and said:

This is particularly relevant to today's construction environment where electrical installation, data cabling, internal and external telecommunications systems, security and in some cases, building maintenance systems are normal design requirements demanded by clients. (sub. DR82, p. 5)

In regard to telecommunications, a national guideline on access for digital communications will provide advice to industry on physical access and spatial requirements for the efficient distribution of telecommunications to and within multi-tenanted buildings. It is expected that the draft will be developed during the latter half of 2004 with publication in mid 2005 (sub. 50, p. 11).

Similar arguments to those for incorporating plumbing into the BCA generally apply for electrical installation and other on-site services.

The Chairman of the ABCB pointed out that in view of the electrical contractor opposition likely to be encountered and the relatively small benefit, this is of relatively low priority (sub. DR75, p. 9).

RECOMMENDATION 6.5

The ABCB should continue its work to identify and resolve differences between the BCA and on-site electrical installation and telecommunications requirements.

6.5 Occupational health and safety

Each State and Territory has its own Occupational Health and Safety (OH&S) legislation that contains requirements in relation to buildings, persons working on a building site and maintenance obligations.

The Office of the National Occupational Health and Safety Commission (NOHSC) commented that, while current OH&S regulations require consideration of a range of issues, some of these are covered by the BCA. It referred to instances where some conflicts exist between OH&S legislation and the Building Code requirements in one or more jurisdictions. For example:

- provision for permanent anchorage points on buildings and structures for working at height is not required under the BCA (although the Queensland Appendix to the BCA ... requires anchorage points according to the specifications of [an] Australian Standard) ...

-
- the height requirement for barriers for fall protection on, and in, buildings (such as balustrades, parapets and guard rails) — for example, the *ACT Safe Demolition Work Code of Practice 2000* requires adherence to the [an] Australian Standard ... while the BCA specifies different height requirements depending on the location and use of the barrier. (NOHSC Office 2004)

The Office of NOHSC commented that ‘it is desirable to address inconsistencies in the regulation so that the requirements complement each other (NOHSC 2004, p. 2). Further, the Office felt that there was scope for the Building Code to cover some additional issues that are not currently contained in the BCA. It said:

... the BCA does not deal with the OHS of those constructing the building, nor does it deal with a wider range of OHS matters related to building design, which may affect those who occupy the building or those maintaining, cleaning or servicing the building. (NOHSC 2004, p. 2)

Accordingly, the Office of NOHSC indicated it is pursuing strategies to assist the ABCB to consider its draft National Standard for Construction Work from the perspective of promoting consistency with, and integration into, the future Building Code. In some cases, a nationally consistent approach would need to be adopted before this could occur.

The Housing Industry Association (HIA) commented that it did not consider that there is a conflict between BCA requirements and OH&S legislation. It argued that this is because the current BCA does not have OH&S considerations as a goal for its content. It felt that this issue is more appropriately dealt with by the recently established Core Strategic Group that is to prepare a strategy for Board approval on the development of the next generation BCA, scheduled for release in 2007-08 (sub. DR85, p. 12). However, as noted earlier, objective 7 has the aim of encouraging consolidation of all mandatory requirements affecting buildings — and this would include OH&S requirements impacting on buildings. In addition, the time frame outlined would mean that consideration would not be given to this issue for a considerable period.

The MBA pointed out that the nature of the issue would determine whether it is appropriate to be included in the BCA. It said:

Where there is a requirement to construct an element of the structure to ensure the health and safety of the final occupant, then that should be included as a technical specification in the BCA. However, where the occupational health and safety issue concerns the protection of the constructors and tradespeople etc then that should be considered in the normal operation of a safe worksite by the constructor and as such should not be covered by the BCA. There is scope for dealing with OH&S in relation to the safe conduct of maintenance of a building which may be considered in the BCA. (sub. DR82, pp. 5–6)

The Chairman of the ABCB supported the recommendation in the draft report that the Board continue its work on OH&S matters and noted that this issue is an ongoing part of the strategic review of the BCA project (sub. DR75, p. 9).

The AEA raised the question of the appropriate placement for regulation governing the safety of lift and escalator technology. It noted that there are differing requirements in several pieces of legislation, including State OH&S Plant Regulations, State Building Regulations, the BCA, State electrical regulations and fire services regulations. It considered that '[t]he multitude of regulations can cause difficulty and inefficiency but worse, it can lead to safety oversight' (sub. 44, p. 29).

While the AEA recognised that the prior practice of handling requirements for safety through the State OH&S regulations was appropriate, it has suggested that consideration be given to both referencing European Union 'Lift Directives' and introducing OH&S regulation principles within the BCA. It said:

... it now seems incongruous that the safety of equipment used in places like factories and open spaces etc, is governed by the same rules that govern the safety of equipment used in finished commercial and residential buildings. We can even report absurd situations stemming from that; for example in Western Australia a lift installed in a commercial building is governed by the State OHS regulations, but the same kind of lift installed next door in a residential building is not. (sub. 44, p. 29)

RECOMMENDATION 6.6

The ABCB should continue its work on removing inconsistencies between occupational health and safety (OH&S) legislation and the BCA and incorporating relevant OH&S requirements that impact on building into the BCA.

6.6 Sustainability and the environment

As incomes rise, people are often prepared to spend a greater amount on environmental goals and there appears to be increasing interest in addressing environmental issues affected by building. This is reflected in initiatives at all levels of government in Australia. For example, some 'greener' Local Councils, particularly in New South Wales, have been pursuing an independent sustainability agenda with regulations about such matters as water tanks and stormwater runoff.

Similar developments are occurring in other countries. In reforming its *Building Act 1991*, the New Zealand Government's revised *Building Act 2004* recognises the concept of sustainable development by introducing it into the purpose (sub. 5, p. 4). The OECD Sustainable Buildings Project (2003) was initiated in May 1998 as a four-year project with the objective of providing guidance for the design of

government policies to address the environmental impacts of the building sector. The United Kingdom recently announced the establishment of a Sustainable Buildings Task Group to identify how government and industry can improve the quality and sustainability of new and refurbished buildings. A range of mechanisms are to be considered, including the promotion and adoption of best practice and the potential for the use of voluntary agreements.

Currently, the IGA directs the ABCB to take account of the objectives of health, safety and amenity, but not sustainability or the environment. Nevertheless, in response to a government request to do so, the BCA contains provisions for energy efficiency (discussed below) that are oriented towards environmentally sustainable development.

The ABCB has recently made decisions regarding the role it should play on sustainability and the built environment, even though it is not included in its mission statement. Its view is that sustainability should be included as a goal of the BCA, alongside existing BCA goals of health, safety and amenity. It sees a need for a nationally coordinated approach to these policy issues and, where regulation is involved, that the ABCB and BCA should play a role. The ABCB has identified energy, water, materials and indoor environmental quality as possible areas for consideration (ABCB 2004c).

What is sustainability?

Sustainable development is a generic term with various meanings. Perhaps the most frequently quoted definition is from the report of the World Commission on Environment and Development (1987):

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. (p. 54)

All Australian Governments endorsed the National Strategy for Ecologically Sustainable Development in 1992. The Strategy states that ecologically sustainable development:

... aims to meet the needs of Australians today, while conserving our ecosystems for the benefit of future generations. (CoA 1992, p. 6)

There is no generally accepted definition of 'sustainable building'. The Cooperative Research Centre for Construction Innovation conducted workshops in Australia and, in consultation with the ABCB, developed the following definition:

Sustainability in building construction means "a way of building that reduces the negative health and environmental impacts caused by the design and construction process, by buildings or by the built environment". (sub. 4, p. 21)

The Queensland Government's definition of sustainability in relation to buildings is very broad and takes account of:

... housing in a broader social, environmental and economic context. From this perspective, a sustainable house is seen as one that has been designed with people in mind i.e. is safe, secure and universally designed; is resource efficient in water, waste and energy; and is cost efficient. (sub. 41, part 2, p. 11)

As well as a lack of agreement over the definition of sustainability, there is no agreement over how far to go in pursuing it. The ABCB Chairman indicated 'it is difficult to determine at this stage whether there is community consensus over what is a desirable level of sustainability for buildings' (sub. 4, p. 21). The Tasmanian BRAC also noted that '[t]he community expectation in relation to a level of sustainability is still unclear and needs to be further developed' (sub. 29, p. 8).

The HIA noted a large number of factors related to the design and construction of buildings that impact on the sustainable performance of buildings including: energy efficiency; water conservation; stormwater management; waste minimisation, recycling/reuse and resource management; building materials' selection; indoor air quality; noise attenuation; accessibility, durability and adaptability of buildings; household features; urban salinity prevention and building maintenance (sub. 6, p. 35).

Most of these factors fit into two broad categories:

- reducing emissions that harm the environment
- conserving scarce natural resources.

Under the first heading come a range of adverse effects of buildings on the environment:

- greenhouse gases
- waste water
- construction and demolition waste
- noise.

And under the second, scarce resources include:

- water
- non-plantation timbers
- energy and other non-renewable resources.

While indoor environmental quality does not fit neatly into these two categories, it is really a health issue and could be addressed under that category.

The Board uses the term sustainability to refer to environmental issues. Sustainability is harder to define and to relate to market failures than is the concept of adverse environmental impact. Given the lack of consensus over the meaning of the term and that most, if not all, of the factors can be categorised as either negative environmental impacts or dealing with conservation issues, the Commission prefers the term ‘environment’ to ‘sustainability’.

There was some support for this change by participants. The ACF strongly supported the use of this term as ‘[t]here are less vagaries in the term “environment” than “sustainability” and this will make the mission of the ABCB clearer to all parties’ (sub. DR94, p. 1). On the other hand, the ABCB Board Member from Tasmania, Graeme Hunt, expressed a preference to retain the term sustainability (sub. DR83, p. 6).

Some have argued that sustainability should be the domain of building regulation and environment the domain of planning. However, it is not possible to make such a clear distinction and impacts occur at varying scales ranging from global (greenhouse gas emissions, ozone depleting chemicals, resource depletion) to local (urban sprawl and habitat destruction, environmental degradation of air, water, soil).

The case for intervention

The case for government intervention should depend on whether there is a significant market or government failure that needs to be addressed and whether the benefits will exceed the costs.

The AGO said:

Existing markets also do not fully reflect environmental and social benefits and costs. Energy and building material prices are largely based on the operational costs of supply, and do not include environmental costs such as greenhouse emissions and intergenerational access to scarce resources. (sub. 54, pp. 1–2)

Emissions that harm the environment are negative externalities. As producers and users do not have to pay the full costs of emissions, they are over produced from an efficiency perspective. Much of the benefit from the adoption of measures designed to reduce environmental damage accrue to society at large, and so are not taken into account by firms when making decisions about such issues. Thus, their level of adoption may be lower than is socially desirable (PC 1999a, p. xiv).

In the case of a number of scarce and/or non-renewable resources, it is not so much market failure but government policies that have prevented prices reflecting their true value to society. Without intervention, prices would increase as resources

become increasingly scarce, with consequent incentives to reduce consumption of the products. Such products include water, energy and non-plantation timber. For example, charges for water are often based on the cost of water delivery and do not reflect its scarcity. In some cases, water charges are tied to access rather than usage and thus provide no incentive to reduce the volumes used.

Correcting these price imperfections involves either: providing price incentives to producers to take account of environmental externalities in the case of emissions; or removing interventions and practices that prevent prices from fully playing a role in encouraging conservation. In many cases, correcting the price signals will be the most efficient and effective approach and thus the first option to consider well before assessing the need for regulation. For example, the PC report on the environmental performance of commercial buildings noted that the use of market based mechanisms to incorporate environmental externalities into decision making (through pricing) would improve resource allocation and the efficiency of the economy as a whole (PC 1999a).

The PCA agreed that regulators should investigate the potential market mechanisms or incentives to generate the desired outcomes before turning to regulatory instruments. It said:

The Property Council's experience to date with energy efficiency and sustainability reforms has been that stringent requirements are introduced in the naïve assumption that only regulation will generate change.

This attitude must be challenged, as it has the potential to stifle innovation and limit variety. (sub. DR93, p. 12)

Energy market reform and other related policies over the last decade have created downward pressure on energy prices. The White Paper on Australia's energy future acknowledged that lower energy prices in Australia are one factor driving our poor energy-efficiency performance. Lower energy prices reduce the commercial attractiveness of some energy-efficiency opportunities, making it less likely (or rational) for individuals or businesses to pursue them. The White Paper noted that in regard to improving market signals:

The Ministerial Council on Energy's reform programme for the Australian energy market includes a strong focus on improving market signals and arrangements for demand side management. These reforms will provide greater incentives for the uptake of energy efficiency. (Department of the Prime Minister and Cabinet (DPMC) 2004, p. 111).

However, in the case of building, both for emissions and natural resources, addressing price distortions alone are unlikely to result in efficient outcomes. This is because information deficiencies can inhibit the effectiveness of the price mechanism. As the AGO pointed out:

Price signals are often blurred by the relatively complex supply chain in building markets (designers, developers, builders, building owners, and tenants), the lack of performance information available, the knowledge base of purchasers, and longevity of buildings. (sub. 54, p. 1)

Also, property developers have an incentive to minimise capital costs rather than lifetime operating costs, because energy and water charges will be borne by the buyer or tenant of the property. So, for example, while increased prices on energy should result in greater use of energy-efficient technologies, it can be difficult for buyers to determine whether buildings embody energy-saving provisions. Especially with respect to residential buildings, one-off purchasers may have little knowledge of building technologies, and may have limited opportunities to obtain valuable information through past transactions in the building market. While prospective buyers of commercial buildings may conduct research and seek energy efficiency, typically individual consumers have lacked basic information on the environmental performance of the dwellings that they are going to buy or occupy. (Although this is increasingly being addressed with star rating systems and similar methods of providing information.)

In addition, with water, even where usage charges operate, their impacts are complicated by the widespread practice of central metering in multiple dwelling households and multiple tenant offices. Similarly, the collection of waste from buildings is generally paid for on an operational costs basis through general rates, rather than on the basis of waste volumes or toxicity.

Policy responses

Due to this complex mix of price distortions and information gaps, the case for any sort of intervention and its nature requires careful consideration. Where regulation is one of the possible responses then the RIS process provides a clear and thorough framework by which to assess the alternatives (see chapter 8). For example, RISs have been prepared for sound insulation and energy-efficiency provisions. However, regulation should not be the first choice but be assessed against a range of alternatives:

- information programs, including through the rating of buildings and demonstrating the benefits of energy efficiency;
- market mechanisms such as taxes, subsidy programs and quantity controls to incorporate environmental externalities into economic decision making;
- regulation whether by means of performance or prescriptive standards; and
- planning approvals for siting and orientation of buildings.

The nature of the market failure should determine the nature of the response. While market instruments are often the best option, some costs are not easily taxed and some benefits are not easily subsidised and at times governments have other reasons for not choosing these ‘fiscal’ instruments or similar schemes, such as emission permit trading. Information programs may not reach some individuals; some individuals may be unable to absorb or act on information provided; and a significant number do ‘not know what they don’t know’.

Sometimes it will be efficient to use more than one policy instrument concurrently to reinforce each other. The choices of intervention are made more complex by the complexity of building and the trade-offs that need to be made amongst all the goals. The Green Building Council has expressed support for ‘both mandatory and market mechanisms for improving the environmental and human health impact of building development’ (sub. DR89, p. 2).

There is a tendency in this area to mix means and ends. Regulation impact analysis will contribute to separating the problem from the means, eg adaptable housing is not an objective in itself but one means to address concerns about the conservation of resources and lowering the cost of addressing special needs of people. Some means that can be used to address environmental issues include:

- adaptable buildings
- recycled materials
- insulation
- water-efficient shower heads
- water tanks
- recycled water
- reduced water pressure.

In each case, they should be related to the ultimate problem and objectives they are meant to be addressing and not treated as goals in isolation.

Another important consideration is the impact of one measure on other aspects of environmental performance and other qualities of a building, more generally. For example, measures to reduce the loss of warmth can compromise indoor air quality and decreases in water pressure designed to conserve water can decrease the effectiveness of fire fighting.

The FPA Australia warned of the impacts of any change in regulation to conserve water (under the sustainability agenda), as fire protection systems in buildings

require high pressures to meet the performance requirements for fire fighting. It added:

Any decrease in Towns' main water supply pressure at the meter or in the network will impact on installed and proposed [fire protection] systems. Systems are designed to achieve a minimum pressure at the hydraulically most disadvantaged point, based on a minimum acceptable source of supply and agreed pressure. Effective and reliable system operation cannot be assured if pressures are reduced beyond these design limits.

Any change in regulation to conserve water must carefully consider the ability to supply water to existing engineered installations and quantify the impact on new build and maintenance routines. (sub. 19, p. 12)

It further commented that the emergence of new greenfield-type community developments has created a number of problems for the fire services, including access through security barriers, narrow roads, and lack of firefighting water due to the increasing use of rainwater tanks and grey or recycled water (sub. DR79, p. 5).

The Tasmanian BRAC considered that any public health outcomes must be carefully considered. For example, 'the installation of water tanks for sustainable water use may increase the risk of mosquito borne disease, particularly in the tropics' (sub. 29, p. 8).

As the Australian and New Zealand Solar Energy Society (ANZSES) pointed out:

These [sustainability requirements] should be assessed with an holistic approach, as no one thing is necessarily the preferred option. Rather, issues of energy efficiency, recycling, sustainability, water conservation, and insulation standards should all work together collectively to provide a better built environment. (sub. 1, pp. 8–9)

The National Australian Built Environment Rating System (NABERS), developed by the Department of Environment and Heritage, has gone some way to indicate the trade-offs to be made between different environmental objectives. NABERS is a comprehensive built environment rating system that measures an existing building's overall environmental performance against a set of key impact categories. It is a voluntary tool.

Thorough regulatory impact analysis should address all these issues clearly, separating problems, means and ends and exploring inter-related impacts.

The way ahead

The Board considers that if elements of sustainability are to be addressed by means of regulation, the goals of the BCA (that is, health, safety and amenity) should be expanded to also include sustainability (or the environment). The Commission agrees (see recommendations 11.1 and 11.2).

A particularly important role for the Board will be to introduce greater uniformity in approaches to environmental issues. Participants noted that Local Governments have been adding their own requirements to cover sustainability issues as the BCA does not currently address these aspects (with the exception of the energy-efficiency provisions). The introduction of various additional measures has the potential to erode the benefits of the national Code.

In discussing sustainable construction, the HIA said:

The need for regulation of these design components must be determined in forums that can facilitate a nationally consistent approach to regulatory matters. Where regulation is determined to be essential, appropriate provisions must be contained within the Building Code of Australia. (sub. 6, p. 8)

Similar views were also expressed by the Western Australian Government Department of Housing and Works:

A meeting of Planning and Local Government Ministers in Perth in February 2004 considered the need to manage the proliferation of sustainability standards and responded favourably to a proposal for all sustainability issues to be managed by the ABCB and incorporated in the BCA. (sub. 14, p. 7)

The Green Building Council expressed its concerns about a lack of uniformity:

Our national standards and in particular the Building Code of Australia are rapidly being overtaken by a proliferation of state based schemes. Local government too, is adding to the proliferation of sustainability demands. (sub. 11, p. 2)

The Water Services Association of Australia commented that the reform of building regulations should ‘manage duplication, overlap and conflict in the emerging field of sustainability, in particular as they relate to water and energy use efficiency’ (sub. DR63, p. 2).

The NT Minister for Lands and Planning supported the inclusion of sustainability issues in the BCA:

If these matters [including sustainability] are not addressed within the code they will emerge within Commonwealth, State, Territory and Local Government regulations and undermine the effectiveness of a national building code. (sub. 30, p. 2)

In principle, the Commission supports the objective of the incorporation of all technical requirements for buildings into the BCA (subject to considerations such as ease of use and the requirements of alternative users). Much work, however, remains to be done on establishing a case for building regulation including environmental requirements. The use of mandatory standards through the BCA generates costs and benefits and these should be well understood before proceeding with such a policy and then, only when the benefits exceed the costs, and a better

alternative is not available. Any new mandatory requirements need to be rigorously assessed before inclusion.

In view of the overlap in these areas across portfolios, there is a need for a whole-of-government approach.

Priorities

The HIA stated that there appears to be a consensus that energy efficiency and water conservation are the two most important issues to be addressed. Although it also noted that in New South Wales, Local Governments are currently developing new regulations for adaptable housing as this is seen by some to be a significant local community issue (sub. 6, p. 35). The Tasmanian BRAC identified waste management, reuse of materials and water conservation for consideration (sub. 29, p. 8).

The Insurance Council of Australia (ICA) expressed the view:

As a large amount of material is used in building each year, the BCA could consider requirements to minimise the use of non-recyclable materials made from non-renewable resources. Where recyclable materials made from non-renewable resources are used, the BCA could define construction techniques that facilitate the removal of these materials for recycling. (sub. 38, p. 12)

The Green Building Council considered that '[w]ater is now the undeniable first priority for all property development and thus should be included with energy efficiency as a sustainability/environmental concern' (sub. DR89, p. 2). In addition, the Council considered that indoor environment quality should be covered within the BCA due to its significant impact on the health and amenity of occupants (p. 2). Similarly, the ACF noted that there should be improved energy, water and materials efficiency by means of the BCA in order to deal with a range of problems, including the reduction of greenhouse gas emissions (sub. DR77, p. 4).

Priorities for the OECD Sustainable Buildings Project (2003, pp. 14, 32) were the reduction of carbon dioxide emissions (through energy efficiency measures), minimisation of construction and demolition waste and prevention of indoor air pollution. The focus of the UK Sustainable Buildings Task Force will be on areas such as water and energy savings, the use of timber and other construction materials and waste reduction.

ANZSES said:

... it is hoped that the ultimate outcome of the review [PC study] will be to ensure that regulations both enable and encourage the use of renewable and sustainable energy

supplies into building design, as well as incorporating high levels of energy efficiency. (sub. 1, p. 2)

The MBA felt that the ‘future building code should cover all issues pertaining to sustainable buildings, environmental issues that impact directly on the building itself and other elements’ (sub. 24, p. 4). BPIC expressed similar sentiments and considered that the ABCB is the appropriate administrative and regulatory body to inform and enforce issues of energy efficiency and sustainability to the extent that they relate to the built environment (sub. DR84, p. 1).

The Municipal Association of Victoria commented that ‘[t]here is no question that environmental objectives should be mandated in the BCA’ and that ‘[w]ork should commence immediately on the nature of the environmental objectives that should be included’ (sub. DR71, p. 7).

There appears to be general agreement that environmental impacts are an important consideration for buildings. While there is support for a ‘better built environment’, there is divergence over what elements should be covered and what the threshold levels should be. The Board has already undertaken some work on energy-efficiency standards for buildings and has also identified indoor environmental quality, water efficiency and materials use as the next in line. Each of these are analysed below.

Water efficiency

What is the issue/problem?

Water is a critical and scarce resource, often poorly managed and over exploited (PC 2004f). Current water usage charges do not reflect the true economic cost, including environmental costs. Households account for about 16 per cent of the consumption of mains-supplied water, with a further 4 per cent used in the commercial and other sectors (Wilkenfeld 2004, p. 2). (This does not include self-extracted and reused water.⁴) Household consumption is about 30 per cent higher than the OECD average, ‘even though we live on the world’s driest inhabited continent’ (Anderson 2003). Efficiency options that could be cost-effective (at current water prices) may not be taken up because of low awareness of water prices, uncertainty about future prices, lack of information about water efficiency performance and because products are often chosen by intermediaries such as developers or plumbers, rather than those ultimately paying the usage costs. Further,

⁴ ABS (*Water Account, Australia, 2000-01*, Cat. no. 4610.0).

central metering in multiple dwelling residences and multiple tenant offices can blur price signals and incentives.

There are no economy-wide estimates of the savings from water efficiency measures, but recent estimates indicate positive net benefits from the introduction of water efficient showers and toilets (see Wilkenfeld 2004). Box 6.1 provides examples of some government initiatives to improve water efficiency.

A role for the BCA?

Currently, water and other plumbing matters are not generally within the scope of the BCA. Issues such as efficiency of shower heads, taps and other devices and water pressure fall within the Plumbing Code of Australia (PCA). However, the BCA does reference AS3500 in relation to stormwater plumbing (ABCB pers. comm., 9 November 2004). As discussed above, there is a case for better linkages/compatibility between the PCA and BCA.

The case for water efficiency standards in the BCA requires detailed examination. As in other areas, it must be demonstrated that: 1) a regulatory response is justified (and shown to be superior to non-regulatory measures); 2) standards are the most efficient regulatory response; and 3) those standards are best incorporated into the BCA (rather than the PCA, for example). A suite of complementary regulatory and non-regulatory measures (including incentives and education) may be the most appropriate response. There may be a role for the ABCB in preparing guidance documents.

Materials

Issues relating to materials could potentially include waste from construction and demolition; reuse and recycling of materials; materials use and durability. It is estimated that construction and demolition accounts for:

- 55 per cent of timber used in Australia, 27 per cent of plastic and 12 per cent of iron and steel; and
- 37 per cent of waste going to landfill (ABS 2000, pp. 640–41).

Box 6.1 Some government initiatives to improve water efficiency

A voluntary water efficiency labelling scheme, managed by the Water Services Association of Australia, covers shower heads, toilets, taps, clothes washers, dishwashers, urinal flushing devices and flow regulators. In May 2003, the Environment and Heritage Ministers of the Australian, State and Territory Governments and of New Zealand, agreed to develop a national mandatory water efficiency labelling scheme covering showerheads, washing machines, dishwashers and toilets.

Most water authorities require that products installed meet the requirements of the National Certification of Plumbing and Drainage Products Scheme. In theory this sets a minimum performance standard, but many products installed in fact fail to meet the standard (due to no requirements on what can be sold, many do-it-yourself installations, and limited enforcement resources). Several authorities have rebate programs offering customers free or subsidised water-saving products (eg shower heads; rainwater tanks) and/or have retrofit programs, where product installations and inspections by plumbers are subsidised. The installation of certain water efficient devices is mandatory in new buildings in some jurisdictions, for example, dual flush toilets (most parts of Australia) and shower heads in new residences in the ACT. The NSW BASIX requires that (initially for the Sydney metropolitan area) new homes achieve a 40 per cent reduction in potable water consumption. Most jurisdictions have information and education campaigns to encourage reduced consumption. Some Councils have local requirements (eg relating to storm water recycling and grey water reuse).

A number of COAG initiatives have sought to address sustainability issues, including water conservation. Most recently, the August 2003 National Water Initiative includes a commitment to establish a Taskforce to develop specific actions to encourage urban water conservation, including better use of stormwater and recycled water, and review the effectiveness of pricing.

Sources: Wilkenfeld 2003; PC 2004f; DEH 2004a; Victorian Government Department of Sustainability and Environment 2003.

Compared to other countries, Australia has low levels of recycling and reuse:

- 1.2 tonnes per capita/year of solid waste disposal to landfill each year (in the top 10 of OECD countries); and
- 8 million tonnes of construction and demolition (C&D) waste to landfill each year (around one-quarter of this is concrete, with the rest being timber, metal and plastics) (Ashe et al 2003, p. 12).

Most countries have regulations concerning waste disposal, particularly hazardous waste (generally under environmental protection or other Acts).

Steps to reduce C&D waste can occur at various stages in the life cycle of buildings:

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- upstream stages — building design and construction for improving the waste-generation related characteristics of buildings (for example, recyclability, reusability, physical durability);
 - demolition stages — demolition of buildings and disposal of wastes; and
 - downstream stages — recycling and reuse of materials and use of recycled materials in building design and construction (OECD 2003, p. 38).

The disassembly of buildings at the end of their life to enable the reuse of materials and products has not been a design consideration in current practice. A major barrier to reuse is the difficulty of separating, without damaging, the components that can be reused. Currently, the BCA does not address the reuse of building materials and products.

The Australian Government has set targets for the reduction of waste going into landfill and all States and Territories have some form of legislation related to waste management. Most States impose a levy on landfill and some have set target dates for removing C&D waste from landfill altogether. Another way of minimising C&D waste is lengthening the service life or durability of buildings. Through the Waste Wise Construction program (part of the Australian Government's \$6m Waste Management Awareness Program (WMAP)), the Government worked in partnership with a number of key industry companies and building industry associations to establish new national methods of reducing construction waste and improving recycling rates. At the completion of the program in 1991, participating construction companies were achieving diversion rates of up to 98 per cent of volume. WMAP funded the development of a Guide to the Use of Recycled Concrete and Masonry Materials that set out design advice and case studies for the specification of recycled material (DEH 2003).

Before regulating extensively in this area, it would be important to explore fully other options. For example, OECD countries have adopted a range of alternative measures, including landfill taxes and bans, tradeable permit schemes, various subsidies and materials information exchanges. Australia has relatively low landfill charges reflecting, to date, its relative abundance of land available for waste.

Indoor environmental quality

The ABCB defines 'indoor environmental quality' to include noise, ventilation, lighting and air quality. Hence, there is an overlap with health and amenity objectives. The focus of the discussion here is on indoor air quality.

The National Health and Medical Research Council defines indoor air as any non-industrial indoor space where a person spends an hour or more in any one day (Ashe et al 2003, p. 59).

A number of reports have highlighted the importance of improving indoor air quality and the need for a national coordinated approach to the issue. Responsibilities are shared between environmental and health departments and agencies at both the Australian Government and State levels, and cover environments ranging from workplaces to homes. For example, indoor air quality in occupational settings is managed under State and Territory occupational health and safety legislation. The Australian Government's Living Cities — Air Toxics Program, with funding of around \$50 million over three years and administered by Environment Australia, is the primary mechanism for supporting the development of a national strategy to monitor and manage air toxics. As part of this program, the publication entitled 'State of Knowledge Report on Air Toxics and Indoor Air Quality in Australia' was an important input into this process (DEH 2004b).

Indoor air quality can significantly affect human health. Problems can arise from emissions from construction; building materials and components (that is, finishes, paints and backing materials); indoor occupant activities; building maintenance products; equipment (computers, copy machines); moulds and mildew and building ventilation systems. Some of these impacts can have short-term and reversible health effects (in the case, for example, of the 'sick building syndrome') while others can cause more serious, long lasting and even life-threatening health effects (such as cancer, legionnaire's disease and multiple chemical sensitivities). CSIRO cited two common indoor air pollutants that have significant health effects: formaldehyde, emitted by certain particleboards and plywoods; and nitrogen dioxide, emitted from unflued gas heaters (CSIRO 1998).

Indoor air levels of many pollutants may be 2.5 times — and occasionally more than 100 times — higher than outdoor levels. This can be of concern as Australians generally spend around 90 per cent of their time indoors (similar to levels for Europe and the US). The quality of indoor air is determined by the quality of ambient air and the magnitude of emissions of pollutants from indoor sources.

Economic costs may arise from lower productivity, increased liability to building owners and design professionals and increased health care costs. In 1998, the CSIRO estimated that ill-health and lost productivity due to poor indoor air is costing Australia around \$12 billion each year, with most of these problems being preventable (CSIRO 1998).

Efforts to increase energy efficiency, together with inadequate ventilation, have sometimes exacerbated the indoor air problem by making buildings more airtight (OECD 2003, p. 28).

There are two broad strategies for addressing indoor air quality. Lowering the levels of concentration of pollutants can be achieved by eliminating or reducing the pollutant sources inside buildings and also by increasing the ventilation of buildings. Measures to achieve this include regulatory instruments on both the quality of building materials and ventilation systems and information tools such as labelling schemes and target values and guidelines. A number of measures have been adopted such as standards, codes of practice, guidelines, exposure standards and guidance notes. For example, there are a number of Australian Standards including standards for air-handling and water systems of buildings and the use of ventilation and air conditioning in buildings.

Almost all of these issues overlap with either amenity or health. Hence, the creation of an environment or sustainability objective is not required in order to justify developing technical measures regarding indoor air quality, noise, ventilation and lighting.

Energy efficiency

In relation to energy efficiency, the major source of market failure is that existing markets do not fully reflect environmental benefits and costs. Energy prices are largely based on operational costs of supply. While they are not kept artificially low in the way that water prices are, they do not reflect environmental costs such as greenhouse emissions. Hence, the environmental costs are not generally included in decisions on materials, building systems and design.

Even if prices were to be adjusted to reflect environmental impacts, the impact of price signals would be blunted by information gaps between the builder and the buyer, and the longevity of buildings. Because of these, it is possible for developers to reduce the upfront construction costs that they bear, while potentially increasing the lifetime operating costs borne by owners and tenants.

Indicative of the impact of knowledge gaps, research commissioned by the AGO found that:

residential building energy performance before regulation averaged below 1 Star in the Nation-wide House Energy Rating Scheme, yet economic research commissioned by the Victorian Government has demonstrated that a 5 Star energy performance level would benefit the local economy by \$566 million per annum, created over 1,000 jobs and reduced annual greenhouse gas emissions by 37,000 tonnes. (sub 54, p. 1)

As with all of these environmental issues, a spectrum of policy responses are possible, ranging over:

- market based instruments, such as taxing the price of fuels that produce greenhouse gases or setting up a tradeable permits system for greenhouse gases;
- regulating minimum energy standards for buildings; and
- information programs such as awareness campaigns and voluntary or compulsory rating schemes.

The Commission has reported on the environmental performance of commercial buildings and the range of options available to government to improve the environmental performance of buildings. It examined factors affecting the decision making of firms about the adoption of input-saving technologies and processes that are available during the design, construction, operation and demolition phases of a commercial building's life. It concluded that market-based approaches are the most direct way of accounting for externalities. The Commission considered that mandatory technical performance standards for energy or input efficiency were likely to be distortionary, inefficient and inflexible, targeting only the commercial buildings sector and possibly stifling further innovation (PC 1999a).

However, the Australian Government has been reluctant to use market-based instruments to reduce use of fuels generating greenhouse gases. Instead it is relying on information and regulation-based strategies. For example, the Solar Cities trials are being developed as part of Australia's long-term strategy for climate change. They will bring together support for energy-efficiency technologies in the context of revised market arrangements. The trials will provide a substantial living demonstration of the benefits of energy efficiency (DPMC 2004).

There are a number of voluntary rating schemes available. The Australian Building Greenhouse Rating Scheme, originally developed by the NSW Sustainable Energy Development Authority in conjunction with industry representatives, is a voluntary program that assists owners and tenants to reduce energy use, reduce energy costs and reduce greenhouse gas emissions. The scheme benchmarks a building's greenhouse impact on a scale of 1 to 5 stars. The more stars the better the performance. A 3 star rating is regarded as representing current 'best practice' in the property industry. The Scheme is endorsed by the Property Council of Australia and supported by some other industry associations and property owners. The Australian Government indicated its intention to improve information measures on energy efficiency by working with the States and Territories to require landlords and building owners to disclose energy performance information in leases and sales agreements (DPMC 2004).

A recent report by a Victorian Parliamentary Committee recommended national coordination for an energy efficiency rating tool for residential buildings (Parliament of Victoria Committee 2004, p. 78). The Energy Efficiency and Greenhouse working group, a joint initiative of the Governments of Australia and all States and Territories (excluding Tasmania), is charged with development of a national framework for energy efficiency, including the development of building energy efficiency ratings programs.

The OECD Sustainable Buildings Project noted that building regulation is the most effective measure for upgrading the 'bottom end' of energy performance of new buildings and should continue to be seen as one of the most important policy instruments for the improvement of the energy efficiency of new buildings (2003, p. 174). It added:

It is important to note that, in many countries, there seems to be much room for further upgrading energy efficiency standards. Such potential for energy efficiency improvement should be fully explored. Moreover, in order for the regulation to keep its current level of effectiveness, the standards have to be regularly upgraded in line with the evolution of average energy efficiency levels. Furthermore, governments should continue efforts to make the standards as flexible as possible so as to improve the economic efficiency of the regulation and provide more incentives for innovation.

BCA standards

Following the Kyoto international conference on greenhouse gas emissions, the Australian Government announced a range of initiatives in March 1999. These included minimum standards in the BCA designed to reduce energy consumption and the encouragement of voluntary best-practice initiatives. The AGO has provided funding to the Board since 2001 to progress work on energy efficiency and building regulation. This funding amounts to \$2.3 million to 30 June 2005.⁵ Combined with funding from the Board, a projected total of \$4.75m has been committed for the BCA energy provisions to 30 June 2005.

The AGO argues that energy-efficiency measures in houses have the potential to provide one of the largest single decreases in greenhouse gas emissions, on the grounds that buildings contribute significantly to greenhouse gas emissions⁶ (AGO 2001). This would be reflected in savings over the life of the house. It is estimated

⁵ In accordance with MOUs of 5 January 2001, 23 October 2003 and 9 August 2004 amounts of \$1.3m, \$0.5m and \$0.5m respectively were provided to the ABCB by the AGO. This was in addition to \$2.45m funding by the ABCB on the BCA energy efficiency provisions to 30 June 2005.

⁶ Buildings make a significant contribution to Australia's greenhouse gas emissions. The AGO estimates that in 1997, buildings were responsible for the emission of 95Mt of greenhouse gases (CO₂-e) as opposed to 64Mt for all forms of road transport.

that the building sector accounts for 28 per cent of energy related greenhouse gas emissions (residential 60 per cent, non residential 40 per cent) (AGO 1999). (Of course, size of emissions may not be the best indicator of potential reductions.) The ACF noted that commercial buildings are the fastest growing source of greenhouse gas pollution, based on projections to 2010 (sub. DR77, p. 5).

The approach, initially, has been for minimum improvement in energy-efficiency standards, designed to eliminate ‘worst practice’, while avoiding unreasonable costs and excessive technical and commercial risks. The focus is on the operational component of the energy used over the life of a building. The energy-efficiency measures allow for variability in the standards based on climatic zones. The ABCB introduced minimum mandatory energy-efficiency measures for houses (Classes 1 and 10) on 1 January 2003. A draft RIS on proposed mandatory energy-efficiency measures for residential buildings other than houses⁷ was released for public comment in February 2004. The jurisdictions have agreed to new standards for these dwellings for implementation in May 2005 in the BCA. The ABCB has also finalised two new Regulation Documents (regulatory proposals released in conjunction with RISs) on energy efficiency for offices and other commercial buildings, as well as a five star stringency proposal for stand alone housing which has been agreed by the Building Codes Committee for public release and consultation.

Compliance with the BCA energy provisions can be demonstrated using the Nationwide House Energy Rating scheme. This scheme is based on a ‘star rating’ measurement system from 1 to 10 stars, with 10 stars being superior.⁸ The Code currently covers five main areas of energy intake or usage, namely:

- building fabric to control conduction of energy through the building fabric;
- solar radiation to control discomfort in warmer climates from solar radiation and provide solar heating in cooler climates;
- building sealing to control air leakage into or out of a building and hence avoid an increased need for heating or cooling;
- ensuring adequate air movement either with external and internal openings provided to permit a building to be ventilated naturally or with fan assistance; and

⁷ Applies to class 2, 3 and 4 buildings, namely, apartments, hotels, motels and residential units contained within a building that is primarily used for something else.

⁸ The AGO and CSIRO are formally documenting the NatHers scheme to a full 10 star scale. Previously, the NatHers ‘software’ had a maximum of 5 stars. A derivative of the NatHers software — a new version of FirstRATE energy rating software — was released in September 2004 and extended to 6 stars.

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- services to avoid losing energy through piping or ductwork.

The BCA energy-efficiency measures generally aim to achieve a 4 star performance in climates where winter heating is the dominant need and 3.5 stars where summer cooling is more important. The current software used to determine the star rating does not give sufficient credit in the rating for a well ventilated tropical house. Once this problem with the software is corrected, following CSIRO research commissioned by the AGO, the same rating should apply across Australia.

The ABCB noted that the level of stringency of the energy-efficiency requirements adopted for houses was lower than that originally intended. It indicated that this was to allow the actual results to be monitored and to allow the industry to become accustomed to working with these design requirements. The Board is working currently toward an amendment for higher standards for houses (ABCB 2004a, p. 46).

Variations across the States and Territories

While some jurisdictions have adopted the BCA measures, some have amended aspects of the regulations and others have allowed pre-existing regulations on energy efficiency in their building codes to take precedence over the BCA amendments (table 6.2). Victoria and the ACT have pre-existing regulations incorporated into their building codes that have taken precedence over the BCA amendments. NSW has developed its own energy-efficiency measures, using the Building Sustainability Index, as part of a larger package of measures covering a number of 'sustainability' issues that took effect from July 2004 (box 6.2). In addition, while South Australia, Queensland and the Northern Territory have adopted the BCA measures, they have also amended some aspects of the regulations.

Many submissions called for greater consistency in energy-efficiency measures across jurisdictions. For example, the Tasmanian BRAC (sub. 29, p. 2) expressed concern that some States have retained or recently developed housing or energy codes outside of the BCA. Such measures erode the objective of the BCA serving as a national document regulating standards for building across the country.

Similarly, BPIC commented that in regard to energy efficiency:

The BCA has the capacity to address any concerns regarding climate variability and other differences across Australia. There is no valid reason to provide variation based on jurisdictional or municipal boundaries. (sub. 23, p. 60)

On the other hand, the ACF did not support the argument that national consistency should be given priority over more stringent environmental standards introduced by Local and State Governments (sub. DR77, p. 3).

Table 6.2 Adoption of BCA energy codes by jurisdictions (at February 2004)

<i>State/Territory</i>	<i>Date adopted</i>	<i>Rating</i>	<i>Comment</i>
NSW	Current	No statutory mandatory minimum*	*The voluntary SEDA ^a Smart Homes policy, which applies to around 70% of new building approvals, requires 3.5 stars SEPP 60 ^b requires some housing development to have 3.5 stars
Victoria	Current 1 July 2004/05	3 star 4/5 star	New homes, combined with new water/plumbing requirements
Queensland	1 September 2003	3.5 star	New homes
SA	1 Jan 2003	4 star	New homes
WA	1 July 2003	3.5 to 4 star	4 stars south WA, 3.5 stars north WA, for new homes
Tasmania	1 Jan 2003	4 star	New homes
NT	1 Jan 2003	Nil	However, the NT has BCA requirements equivalent to 3.5 star rating for new homes
ACT	Current From 1 July 2005	4 star 5 star	New homes, 4 star requirement was already established prior to Code introduction

^a SEDA is the Sustainable Energy Development Authority. ^b SEPP60 State Environmental Planning Policies – Exempt and Complying Development. In effect, this SEPP applies to about half of the councils in NSW (mostly non-urban) to complying development ie. certain detached or double storey houses.

Source: Parliament of New South Wales Standing Committee on Public Works 2004, pp. 39, 55.

ANZSES, while supporting some degree of flexibility, said that:

... the national Code must be thoroughly researched prior to implementation, and whilst regulatory in its outcomes, must be equipped with suitable flexibility to allow the necessary variances [location, climate, lifestyles, social and demographic and/or cultural issues]. In this way, there would not be the need for individuals or communities to enforce a higher standard than that outlined in the Code. (sub. 1, p. 4)

Box 6.2 Energy-efficiency measures adopted in certain jurisdictions

New South Wales: New energy use and water targets for all new homes built in NSW using the Building Sustainability Index (BASIX) include:

- for energy, development approved from July 2004 (Sydney metropolitan area) is required to achieve a BASIX rating of 25, which means taking measures to potentially reduce greenhouse gases by 25 per cent. The target will be increased to 40 in July 2006 (a 40 per cent reduction in greenhouse gases); and
- for water, development approved from July 2004 (Sydney metropolitan area) is required to meet a BASIX rating of 40 for water conservation (or 40 per cent reduced potable water consumption). Mechanisms to achieve this may include installation of AAA shower heads and rainwater tanks where appropriate.

BASIX is to apply to the rest of the State by July 2005.

Victoria⁹: The Government announced a minimum 5 star energy-efficient rating requirement for all new housing that would start in July 2004 and become fully operational in July 2005. The standard is performance based rather than prescriptive. The building industry will have three regulatory options for demonstrating compliance when the new standard is introduced:

- Option 1: 5 star energy rating for building fabric provided by an accredited House Energy Rater;
- Option 2: 4 star energy rating for building fabric plus water savings measures and solar hot water system;
- Option 3: 4 star energy rating for building fabric plus water savings measures and a rainwater tank.

These three compliance routes will be available for a 12 month transitional period. From July 2005, compliance with the new residential energy standard will require:

- 5 star energy rating for building fabric plus water savings measures; and
- a rain water tank or a solar hot water service (currently subject to a RIS).

ACT: The system links energy standards to the sale of homes. New homes are required to achieve a minimum four-star rating. The ACT scheme requires that vendors notify and display at point of sale the energy standards of their new homes. It also requires existing homes to have an assessment of their energy standard for disclosure at point of sale.

Sources: Victorian Government Department of Sustainability and Environment 2003; Parliament of New South Wales Standing Committee on Public Works 2004; New South Wales Government, sub. 53, p. 5.

⁹ A report by a Victorian Parliamentary Committee recommended that the potential of BASIX be investigated by the Victorian Government with a view to its adoption as a uniform rating tool, incorporating elements additional to the current water and energy ratings (Parliament of Victoria Committee 2004).

While recognising that there will be some variability based on climatic zones, the Commission endorses an approach of consistency in energy-efficiency measures across jurisdictions. The Chairman of the ABCB noted that the ‘departure from national consistency in recent times is temporary’ and that ‘it is likely that all but one jurisdiction will largely adopt the BCA changes proposed by the ABCB [for class 2, 3 and 4 buildings and five star stringency for housing] over the next two years’ (sub. DR75, p. 3).

In August 2004, the Australian Government announced a Productivity Commission inquiry to examine the potential economic and environmental benefits from improving energy efficiency. This inquiry will examine the case for intervention and the relative effectiveness of the alternative instruments. It will report within 12 months (Cameron and Macfarlane 2004).

FINDING 6.3

A number of jurisdictions are implementing their own energy performance requirements for buildings. These are leading to substantial divergences across jurisdictions, thereby eroding the national approach for building regulation.

RECOMMENDATION 6.7

The ABCB should put in place a system for ensuring a national approach to the application of any BCA energy-efficiency standards for buildings across jurisdictions and that the assessment of these standards are soundly based (with benefits greater than costs).

RECOMMENDATION 6.8

The ABCB should continue to examine problems associated with adverse environmental impacts of building, starting with energy, water, indoor environmental quality and materials. These, and any other proposals for mandatory standards for other factors, need to be rigorously assessed to ensure that:

- their role is evaluated against other instruments, including information provision and market instruments;***
- there is, in fact, a case for regulation; and***
- the level and form of protection they embody would provide a net benefit.***

A new IGA would be the appropriate mechanism to empower the ABCB to pursue recommendations 6.7 and 6.8 (see chapter 11).

6.7 Property protection from fire

As fire safety ‘represents some 60-70% of all prescriptive requirements in the technical provisions of the Building Code’, it represents a significant part of all building regulations (FPA, sub. 19, p. 3). The deemed-to-satisfy provisions of the BCA, in the area of fire safety, contain a mix of passive systems (such as fire-resisting walls) and active systems (such as fire sprinklers).

A major fire safety issue raised by a large number of study participants related to property (or asset) protection. There are four key aspects to this issue:

1. a degree of uncertainty regarding BCA fire safety objectives and the actual level of property protection currently embodied in the BCA;
2. a widespread view that there is insufficient focus in the Code on property protection and that this is out of step with community expectations;
3. confusion/uncertainty created by differences between BCA objectives and the objectives of legislation governing fire authorities; and
4. insurance companies are sometimes requiring owners of BCA-compliant and council-approved buildings to install additional property protection measures as a condition of providing cover.

Fire safety issues

BCA fire safety objectives

The ABCB Chairman submitted that the BCA’s goal in the area of fire safety is:

... to protect the lives of building occupants, facilitate fire brigade intervention in the event of emergency, and protect adjacent property from the spread of fire and physical damage caused by structural failure. (sub. 4, p. 12)

It would appear to be generally accepted that property protection of a building that is on fire is not a primary objective of the Code (although a level of property protection would often be an indirect consequence of fire safety measures directed at protecting building occupants). Provided the BCA’s spread of fire criteria have been satisfied, a building may burn down and technically still have complied with the performance requirements of the Code.

There are, however, provisions in the BCA requiring certain buildings in a designated bushfire prone area to be designed and constructed to reduce the risk of ignition from a bushfire while the fire front passes. In this case, the Code provides

property protection to houses (class 1 and 10) and residential-type buildings (class 2 and 3) only.¹⁰

Notwithstanding the general understanding that the BCA does not have a property protection objective, some consider that the fire safety objectives are not sufficiently clear. The FPA commented that:

... the BCA needs to be very explicit about what are and what are not fire safety objectives in the BCA.

The benefits will come in the form of less interpretation difficulties by designers, certifiers and certification fire services authorities, a smoother design process, and greater local, regional and national consistency. (sub. 19, p. 4)

The issue is further complicated by an apparent inconsistency between the performance-based provisions of the Code and the corresponding deemed-to-satisfy requirements. It is claimed that the deemed-to-satisfy requirements, largely derived from the old Code, do embody a degree of property protection while the performance-based provisions do not.

Community expectations

There is some debate about whether the community expects that the Building Code should provide property protection.

The Australasian Fire Authorities Council (AFAC) considered that the community expects that their properties will remain protected by the building regulations. It said:

While the evidence to support the following position is largely anecdotal at this stage, the strong relationships that AFAC members have with their local communities leave them in no doubt that community expectations go beyond the parameters currently articulated by the ABCB. Indeed, AFAC believes that the community expects that their properties will remain protected, that the negative impact on the environment from fire will be contained and that community and business disruption ... will be kept to a minimum. (sub. 28, p. 8)

¹⁰ The Commission notes that the COAG Inquiry on Bushfire Mitigation and Management, announced by the Prime Minister in October 2003, finalised its report in April 2004. The inquiry considered the impact of bushfires on the environment, human life, property and the economy and the identification of best practice national measures, cooperation and standards that can be undertaken by all levels of government, industry and the community, and the economic, social and environmental costs and benefits of such measures. The report is not yet public. See <http://www.coagbushfireenquiry.gov.au/findings.htm> (accessed 10 November 2004).

The ICA expressed support for the position put forward by AFAC. Similarly, the Alliance for Smoke and Fire Containment questioned:

... whether or not the overall community expectations are in fact accurately portrayed by the existing PBCA2004 [current version of BCA] performance requirements where the minimum acceptable requirements do in fact allow a building to burn down and a business, hospital or school to perhaps be forced to close its doors and/or shut down after a fire. (sub. 31, p. 2)

The Tasmanian Branch of the FPA commented that the community would not support the current philosophy reflected in the BCA:

It is our belief that the community expect buildings of these types [hospitals, schools, historical buildings etc] to survive a fire, and for business carried on within those buildings to be able to continue more-or-less uninterrupted following a fire. (sub. 35, p. 2)

HIA, however, submitted that a property protection objective for the BCA would be inconsistent with 'the expectations of the building design and construction industry' (sub. DR85, p. 7).

The focus on life safety of occupants and fire service personnel in the BCA is consistent with the approach adopted in many other countries. FPA (sub. 19, p. 4) noted, for example, that countries such as New Zealand, Sweden and Norway have a similar focus. On the other hand, the Association also submitted that:

... protection of property as a community objective is part of performance-based building codes and fire safety regulations being developed or implemented in USA, Canada, Hong Kong and Singapore, and this appears to be a growing trend globally. (sub. 19, p. 4)

Some participants, however, pointed out that making comparisons between overseas fire safety requirements and, in particular, the extent to which they cover property protection is not always straightforward. Pitt and Sherry (sub. DR66, p. 8), for example, pointed out that in some countries the codes of practice or standards that embody property protection objectives are not mandatory statutory requirements.

There are different types (or levels) of property protection that can be pursued, ranging from: (1) protection of the adjacent building; (2) protection of the subject building; through to (3) protection of the building contents and business continuity protection. As noted above, currently the BCA explicitly provides for (1). Internationally, coverage of (2) does not appear to be common and even fewer countries have requirements providing for higher levels of property protection. Arup Fire stated:

Asset protection could include for business continuity or it could be for building fabric/structure only. Fire protection for business continuity is a significantly higher

level of fire protection than is currently regulated and would incur a high cost to all society. A lesser cost and a lesser level of protection would be fire protection to protect the building fabric or building structure. Countries such as Singapore, Hong Kong, Japan and the USA provide for fire protection to protect the structure or building fabric. Business continuity protection is not regulated in these countries. (sub. DR88, p. 2)

There is evidence that some other countries are considering a move towards increasing property protection requirements for important buildings (for example, hospitals and post-disaster recovery centres).

While there may be a community expectation that there should be a level of property protection for buildings beyond that currently contained in the BCA, there is also the question of how much the community is prepared to pay for such an outcome. This is discussed further below.

Difference in regulatory objectives

An important difference between the objectives of the BCA and the Fire Brigade services' legislation in the States and Territories, is that the latter generally require that fire fighting activities must be directed towards the protection of property (including the building that is on fire) and the environment, as well as life.

The difference between the BCA and the requirements relating to fire fighting activities was identified by several study participants as a significant problem, creating confusion and uncertainty:

... due to the conflict in legislation, alternative solutions that may present unacceptable occupational health and safety outcomes for Brigades personnel, or unacceptable environmental outcomes, may not be endorsed even though these issues are not related to compliance with the BCA. Consequently, the Brigades may not accept complying alternative solutions and the design flexibility allowed by the performance based BCA is being stifled by a legislative conflict in the operation of a regulatory approval system. (HIA, sub. 6, p. 33)

... uncertainty in design, whereby a building owner can meet with the national Building Code and still not have a design that is compliant with all requirements [for fire safety] leads to significant dissatisfaction with the process for developers, builders and owners and causes uncertainty in the process. As each State and Territory Fire Brigade/Service develops approvals/endorsements under their own Act, the issues and resolutions are not consistent between States and Territories. ...

Protection of fire fighters within buildings is not a present requirement/objective of the BCA, other than through Performance Requirements that require a design to consider "fire fighter intervention" - yet it may be a determining factor for building fire safety design. There is a significant difference between providing facilities for fire fighting to allow for intervention and providing fire safety features to allow for fire fighter safety. Also, as there are no clear, consistent policies on how fire fighter safety is to be

achieved (and if it needs to be achieved) and no agreed benchmarks for establishing adequate performance, inconsistencies in design and approval result. (Arup Fire, sub. 15, pp. 1–2)

Further, differences across jurisdictions in the approaches and requirements of fire authorities have created uncertainty about what is acceptable. For example, for major retailers operating across Australia, performance-based design solutions for their buildings have been accepted in some jurisdictions, but not in others.

Additional requirements of insurers

There are also apparent tensions between the objectives of the BCA and the requirements of insurance companies. Insurers can require higher levels of property protection than that dictated by the BCA as a condition of providing insurance cover. Some participants have suggested that insurance companies are having an increasing influence on the design and approval process for non-residential buildings. The ICA noted that:

Some owners ... try to get their property insured only to find that a BCA compliant, council approved building does not meet the requirements of an individual insurer, resulting in further expense. (sub. 38, p. 4)

Insurers have raised concerns about particular performance-based fire safety solutions, for example, the use of polystyrene as an element of such solutions. Polystyrene is a very popular building material because of its versatility, appearance and cost and in many applications is deemed compliant with the BCA, however, it burns much faster than alternative materials.

Considerations in determining appropriate property protection

There is a wide divergence of views on the extent to which asset protection should be a goal of the BCA. For example, AFAC considered that asset protection should apply to all classes of buildings, including stand-alone residential housing (sub. DR79, p. 6). Other participants argued that the costs of additional property protection measures would be substantial and cannot be justified. For example, MBA believe ‘that the cost of compliance across Australia, in the event that one day a building may catch on fire, would be prohibitive’ (sub. 24, p. 11).

This is a complex issue that requires detailed examination. It is beyond the scope of this study to provide a definitive assessment of the justification or otherwise for property protection requirements in the BCA. Rather, the Commission has endeavoured to identify the appropriate processes and broad considerations/criteria on which any future assessment and decisions could be based.

Cost benefit/risk assessment

Central to any future consideration must be the application of a cost-benefit methodology, incorporating a comprehensive risk assessment. A RIS-type framework could be used to determine first, whether a property protection requirement in the BCA is justified and if so, the appropriate level of protection (which is likely to vary according to building type and certain location factors). The importance of a rigorous process for resolving these issues was emphasised in a number of submissions:

... changing the focus of building regulation from life protection to asset protection will have very significant costs to the community. Extensive cost-benefit analysis is required on this before considered further. (Municipal Association of Victoria, sub. DR71, p. 7)

... any recommendation to include property protection in the BCA would represent a substantial change and should be subject to a RIS. (The Society of Fire Safety, Queensland Chapter, sub. DR74, p. 1)

In order to justify a regulatory response, it is necessary to identify a market failure, and then to establish that regulation is the best response.

As a general principle, property owners are best placed to determine the optimal level of fire protection, based on their expectations with respect to the risk of a fire incident and the estimated financial and other losses should a fire event occur. With an efficient insurance market, premiums would accurately reflect differences in risk, and provide further signals/incentives to the building owner to achieve the appropriate trade-off between risk exposure and cost of property protection measures.

However, there are two main arguments raised to support regulation that imposes some mandatory minimum levels of property protection. These relate to:

- information deficiencies; and
- negative spillover effects on the community.

In addition, some argued that explicit property protection provisions in the Code, rather than imposing an additional burden, in effect would simply be formalising and making transparent existing de facto requirements imposed by fire authorities and insurers, particularly for commercial buildings.

The two types of market failure above were explained in chapter 3, but it is helpful to briefly discuss here how they relate specifically to the property protection issue.

With respect to information deficiencies, it is argued that some consumers (particularly non-commercial building owners/tenants) do not have adequate

knowledge of the risk and consequences of fire, including the likely performance of a building in the event of a fire. Further, it is claimed that insurance companies have difficulty evaluating property risks, particularly where alternative solutions have been employed.

Before any change to property protection requirements in the Code could be justified based on perceived information deficiencies, it would need to be established that the problems were not able to be addressed more efficiently by alternative non-regulatory solutions. These might include, for instance, information and education campaigns for consumers, and improved (and early) consideration by developers of the information requirements of insurers, when developing alternative solutions.

Potential negative spillover effects on the community, from property loss due to fire (ie, those effects that may not be taken into account in decision making by owners/tenants and their insurers), include:

- loss to a local community of an important building, asset, or employer;
- environmental effects associated with the fire itself (for example, smoke, debris) and resource/energy costs associated with reconstruction;
- social and health costs; and
- the adverse consequences of the spread of fire to neighbouring property (for example, in a multi-unit residential building).

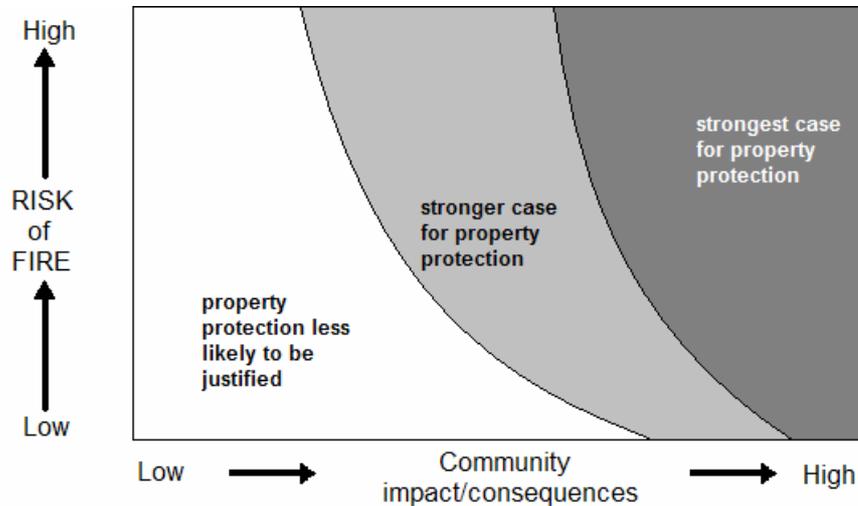
These community impacts or consequences of fire, as well as the risk of a fire, are important considerations in determining the efficient level of property protection. This relationship is shown in figure 6.1.

Fire risk data

With respect to fire risk, data on fire incidence, in particular by category of building, are limited.

Data from the World Fire Statistics Centre show that overall Australia has one of the lowest fatality rates from fire (Geneva Association 2004). In terms of fire fatalities per 100 000 people, Australia has the third lowest rate of the 25 countries involved in the survey.

Figure 6.1 **Notional relationship between risk of fire, community impact and case for property protection**



Source: Productivity Commission adapted from CICQ 1997, p. 52.

A Productivity Commission report (SCRGSP 2004, p. 8.34) provides data on fire death rates from structure fire incidents. Nationally, there were 97 fire deaths in 2001. Exposure to smoke, fire and flames accounted for the largest proportion at 60 per cent, followed by deaths from intentional self-harm by smoke, fire and flames (32 per cent). The Commission's report indicates that the majority of fire-related deaths occurred in the home. Consistent with this, Arup Fire noted that '80 to 90% of all fires, injuries and fatalities involving structural fires within Australia occur in the home' (sub. DR88, p. 5).

Community impacts

The other key consideration represented in figure 6.1 is community impact or consequences of fire. Each building has a varying level of importance to the community and, therefore, the loss of any building will have varying impacts.

Currently, the structural sufficiency provisions (Section B Structure, volume 2) of the BCA adopt the concept of building importance. The application of the provisions varies depending on the 'importance' level of the building, with building types classified broadly into one of four levels. Buildings with a high level of importance, for example, post disaster recovery centres, are designed to a higher level of performance than a low importance level building such as a farm building. However, importance levels are required to be assigned on a case-by-case basis. For example, a hospital may be classified to the highest importance level category (4) if

it is the only hospital in the area, while the same hospital may be of importance level 3 if it is one of many in the area.

The ABCB Chairman advised that the Northern Territory variation to the BCA requirements covering sprinklers expressly adopts this approach for fire safety. It requires:

... fire sprinkler systems to be installed in all hospitals over one storey (over 25m for rest of Australia). This requirement is in recognition of the fact that hospitals in the Northern Territory are sparsely located, and loss of a hospital would have a major impact on the health and safety of the community. (sub. DR75, p. 10)

A similar approach could be used as the basis for determining, more generally, BCA requirements for property protection from fire. Arup Fire (sub. 15, attachment 1, p. 14) proposed that buildings could be rated based on their relative community importance and likelihood of fire incidence based on a framework developed by the International Code Council.¹¹

Arup Fire highlighted the example of damage to a sewage pumping station in Canberra during the bushfires in 2003. While the building complied with the BCA's fire safety provisions, the damage resulted in a significant proportion of Canberra being without an operable sewage system for some time, worsening the impact of the fires. A large fire in commercial premises (such as the fires at the Tip Top Bakery in Sydney and a Victorian abattoir in the early 2000s) can have severe consequences, not only for the private insurable financial interests of the businesses, but also for displaced employees and the broader community. It must be recognised, however, that the imposition of higher fire safety standards for commercial buildings that are considered to be of community importance because of, say their location in a smaller regional centre, could at the margin, provide a disincentive to such location decisions by businesses in the future.

Should a community importance model be adopted for determining property protection levels, as with the importance classifications for structural safety provisions, there would need to be some degree of flexibility and case-by-case assessment of buildings. The ABCB Chairman pointed out some practical difficulties with such an approach:

If the concept was to be introduced applying different standards to different types of buildings within the same building Class (depending on use, location or lack of

¹¹ Three major building code bodies in the United States have recently collaborated to produce model codes for adoption by all States under the banner of the International Code Council. The Council has developed a performance-based code for buildings that utilises fire safety objectives based on community importance.

alternative accommodation in the event of loss), it would introduce considerable ambiguity into the BCA. (sub. DR 75, p. 10)

Some studies on property protection measures

Schools are often identified as critical community assets, although importance to a community would depend partly on the proximity of alternative schools. Fires in schools seem to occur relatively frequently and affect many in the community. As a consequence there have been calls for more fire protection of school property. However, a recent Australian study by Clancy et al (2004), concluded that mandating sprinklers in schools would cost more than three times the value of the property that would be saved from fire damage if sprinklers were installed.

Although individual residential dwellings are not as significant to the community as a whole as many public and commercial buildings, as noted above, fire data indicate that the majority of fire deaths occur in the home.

Some previous studies suggest that property protection fire safety measures for residential dwellings may not be cost-effective. A cost benefit study conducted by the Building Research Establishment (Williams et al 2004) in the United Kingdom concluded that residential sprinklers are not cost-effective for most dwellings, but they are probably cost-effective for residential care homes (for the aged, people with disabilities and children) and for tall blocks of flats (11 storeys and higher).

Debate in Canada led to work that looked at the viability of requiring sprinklers in new single-family houses. While very costly, proponents argued that requiring sprinklers in all new houses would save lives. However, exhaustive studies determined that the marginal improvement in safety with sprinklers, compared to the code-specified mandatory wired-in smoke alarms, is very small (Clemmensen 2003).

Research on the costs and benefits of home sprinkler systems for use in 'Greenfield' sites in Victoria was conducted in 2001, on behalf of AFAC, by the Worcester Polytechnic Institute (USA). The study concluded that the benefits to individual homeowners would be 'fairly small', but net benefits to the community were likely to be significant, arising partly from cost savings from being able to have a volunteer brigade, rather than a career fire brigade (sub. DR79, Appendix 1, p. 2).

Whether or not sprinklers will be cost-effective in any application will depend on life-cycle costs and benefits. Important components include the initial capital cost of installing sprinklers and the ongoing costs of maintenance. Reducing the cost of sprinklers, whilst maintaining a satisfactory level of performance and reliability, could have a significant influence on net benefit calculations. In this context, the

New Zealand Fire Service funded the Building Research Association of New Zealand (BRANZ) to develop an inexpensive residential sprinkler system design. The BRANZ report indicates that the proposed system (which varies from the requirements of the current New Zealand Standard¹²) achieves a ‘cost per life saved’ that is competitive with that of hardwired domestic smoke alarms. The cost of installing the sprinklers in addition to the domestic plumbing into a simple single-level three bedroom new home is estimated to be approximately NZ\$1000.

Summing up

The following are important considerations relevant to any future assessment of the validity and scope of property protection objectives for the BCA:

- assessments must be based on a rigorous and comprehensive cost-benefit/risk analysis;
 - additional property protection requirements should only be considered where it can be demonstrated that a market failure is resulting in an inefficient level of property protection and, further, that there are no non-regulatory solutions that would more efficiently address the problem
 - extensive fire risk data and life-cycle cost and benefit data would be critical inputs into any evaluation;
- the value of a community importance model as a broad classification of building types and a determinant of indicative property protection levels warrants further examination. Importantly, however, the appropriate levels will vary with location/region specific factors, suggesting the need for flexibility and case-by-case assessment. This perhaps implies that regulation has only a limited role to play.

Resolving differences in objectives

Once the appropriate level(s) of property protection is determined, it is important that greater compatibility between the BCA and fire authorities legislation is achieved. As noted above, inconsistencies are imposing significant uncertainty and an additional compliance burden. Participants have put forward a number of possible approaches for resolving differences.

The FPA commented that:

¹² In that the proposed system is integrated with the domestic plumbing, rather than being a stand alone system. See http://www.fire.org.nz/research/reports/reports/Report_1.htm (accessed 13 October 2004).

If we look to other countries, which potentially have this conflict, we see that either the different pieces of legislation are aligned or complementary, or as in the case of the UK, there is a statutory bar on the fire brigade affecting the levels of building fire safety in design. (sub. 19, p. 6)

The NSW BRAC stated that the introduction of a nationally uniform Peer Review Process could provide a greater degree of certainty in the approval process (sub. 25, p. 2). HIA suggested that alternative solutions be peer reviewed by a panel that includes representatives of the Brigades as well as other appropriate industry practitioners. Under this proposal, the HIA stated that ‘while the Brigades could contribute to the assessment of an alternative solution, the proposal could not be dismissed on their view alone’ (sub. 6, p. 34). While this proposal would not resolve the difference in objectives, the source of the problem, it could provide a greater degree of certainty in outcomes.

The Victorian Government commented that:

If these different objectives are to be reconciled, it must be at a State and Territory level. One way for this to occur could be for State and Territory Governments to require the ABCB to develop technical provisions to meet the objectives of the fire service legislation. Alternatively, better coordination of the roles of the fire service and building/planning legislation could assist. (sub. 51, part 1, p. 8)

Arup Fire suggested the establishment of one national body responsible for setting the objectives and goals for national fire safety. This body should include representatives from State and Territory building regulators, fire brigade personnel, fire safety engineers, building surveyors, fire researchers, equipment suppliers and some peak bodies (sub. 15, p. 6).

Given that the advantages and resulting efficiencies from a national Building Code are widely recognised, it seems necessary that steps be taken to obtain consistency in the objectives for fire safety design. However, the Commission acknowledges the difficulties of achieving such an outcome.

FINDING 6.4

The degree of property protection from fire in the objectives of the BCA is different to that generally required by fire authorities’ legislation (and some insurance companies) in relation to building performance, particularly for commercial buildings.

RECOMMENDATION 6.9

The ABCB should work, in consultation with interested parties (including fire authorities), towards determining whether the BCA should contain property protection requirements with respect to fire and, if so, resolving differences in the level of protection provided across jurisdictions. This should be done using rigorous impact analysis.

A new IGA would be the appropriate mechanism to empower the ABCB to pursue draft recommendation 6.9 (see chapter 11).

6.8 Local Government requirements on building

As discussed in chapter 2, Local Governments generally have authority for giving planning approval for developments in their area. This encompasses such considerations as site aesthetics, environmental impacts and zoning. Increasingly, Local Governments have been using these planning approval processes to extend or alter building requirements, over and above those contained in the BCA and its appendices (see box 6.3). There are numerous planning regulations and codes covering, for example, bushfire, water, waste management, energy efficiency and salinity. BPIC noted with respect to Local Government regulations that:

Planning schemes are imposing controls beyond the scope of “health, safety and amenity” of buildings. (BPIC 2003a, p. 3)

HIA also noted that Local Governments:

... place the new regulations in planning schemes and apply their requirements as conditions of development consent. In essence, they will use their planning schemes to apply building regulations to developments. (sub. 6, p. 17)

In a survey conducted by MBA, 47 per cent of respondents indicated the existence of extra local council planning requirements and 37 per cent indicated the existence of extra local council building laws (sub. 24, p. 14). The frequency of additional requirements was generally higher in the residential sector than the commercial sector, with the incidence of additional requirements relating to flooding significantly higher in the residential sector.

Box 6.3 Local Government building regulations

Local Governments across Australia have increasingly been introducing or changing building requirements through their land planning and development regimes.

The HIA gave a recent example, relating to the design and construction of new dwellings so that they are 'adaptable' for future use:

HIA recently commented on a proposal released for comment by a Sydney metropolitan council that set out proposed requirements for new dwellings in its local area. This proposal was of great concern to HIA for a number of reasons, primarily because the scope of the proposal must be addressed through the BCA. Also of great concern, the document contained no evidence that the council had prepared it in accordance with proper regulatory procedures ... it did not indicate that any formal cost-benefit analysis had been undertaken. (sub. 6, pp. 28-29)

The Green Building Council of Australia commented, with respect to sustainability issues:

Local government too, is adding to the proliferation of sustainability demands. Often under-resourced and desperate for improved practice within their local area, many local governments are producing checklists and requirements that, although well meaning, often do not guarantee an environmental outcome and, with the costs of administration, are the very reason planning approvals are delayed. (sub. 11, p. 2)

In noting the costs of market fragmentation caused by a proliferation of standards, BPIC said:

An example of consumer loss is reflected in the decision of Karingal council in NSW to ban the use of termite chemical treatments. The treatment methods were approved by the National Registration Authority for use in Australia, the BCA and the Australian Standard. However, they could not be used in this particular municipality.

The inability of the residents in that municipality to use chemicals severely reduced the range of product available and was particularly problematic for existing buildings where the replenishment of existing chemical barriers was critical to maintaining an ongoing effective system. The result was that many buildings in the region had reduced or no termite management systems exposing them to termite infestation and the consequential damage to buildings. (sub. 23, p. 17)

HIA noted that the introduction of additional building requirements at a local level is occurring, despite some States and Territories having legislation to prohibit local authorities requiring higher standards on any design and construction matter that is addressed within the BCA (sub. 6, p. 12).

Why is this occurring?

The ABCB Chairman suggested that, as the coverage of the BCA moves beyond traditional health and safety issues to issues of sustainability, the 'distinction between building and planning control systems and other areas of administrative

responsibility, such as environment and/or energy policy, becomes increasingly blurred' (sub. 4, p. 25). The HIA further suggested that for emerging issues (such as sustainability issues) there were no regulations in the Code and this allowed local governments to regulate as they saw fit (sub. 6, p. 16).

The HIA also commented that 'local governments are generally more able to rapidly respond to emerging issues, perceived community needs or local political agendas' (sub. 6, p. 17). They may feel that State governments and/or the ABCB do not respond to their concerns in sufficient time to satisfy local political agendas and this forces them to act independently (sub. 6, p. 18). The HIA saw sustainable construction as the next big issue that will emerge as a problem for the planning/building interface (sub. 6, p. 18).

The Australian Local Government Association commented that Local Government is responding to the needs and demands of local communities:

Through effective community partnerships, local government has the ability to develop innovative, best-practice solutions to local requirements. This process ultimately leads to better built environments, tailored to community needs and should be encouraged, not restricted through further regulation. (sub. 45, p. 5)

Is it a problem?

Many interested parties expressed concerns about the increasing tendency for planning regulations to contain building requirements.

BPIC (sub. 23) submitted that Local Governments did not have the resources to ensure their proposed building regulations are soundly based:

Municipal governments do not have the resources to ensure a proper and transparent building regulation development process is implemented. They do not appreciate or have the capacity to address the broader national building reform agendas and display little or no understanding of the importance of consistency to support a competitive national and international construction industry. (p. 20)

With the burden to local governments becoming increasingly large and complex BPIC would argue that the complexities of the BCA preclude local government from being able to effectively administer additional requirements over and above the BCA. (p. 35)

In discussing the role of planning systems in implementing urban sustainability in the built environment, the Victorian Department of Sustainability and Environment acknowledged that:

Focussing the planning system on the prescription of outcomes traditionally associated with building, plumbing or other regulations can potentially undermine the capacity of all of these systems to achieve sustainable outcomes for the built environment and has been a source of concern and inconsistency. (2003, p. 39)

Further, the Tasmanian BRAC commented that:

There is no sound rationale for a local council to impose additional requirements above those in the BCA. They are quite often poorly researched and ad hoc solutions to building problems. ... The ABCB has resources and research capability available to it; a local council does not. (sub. 29, p. 4)

The NSW Government referred to the situation where numerous local councils in that State are implementing their own controls and standards in relation to issues of salinity. It said that '[t]his has the potential to result in differing standards applying across the State and hence problems of confusion and costs for industry and the community (sub. 53, p. 6). The ABCB released a discussion paper on possible changes to the BCA to cover buildings subject to attack from salt and acid sulphate soils in August 2004.¹³ In the meantime, these councils are acting independently and introducing their own requirements.

The South Australian Government pointed out that mechanisms already exist through State or Territory requirements to allow for local or regional circumstances:

... the township of Coober Pedy in South Australia has unique requirements as many of its buildings are constructed underground in rock. There are no provisions in the BCA for such construction, but by working with the Planning SA a satisfactory means of administering building applications was devised. (sub. 36, p. 10)

A key concern, as also noted in chapter 8, is that no formal regulatory impact assessment was necessary for these additional regulatory requirements, as Local Governments are not bound by rules setting out RIS requirements. As BPIC pointed out:

Planning regulation is not subject to the same level of scrutiny as building regulation. (BPIC 2003a, p. 3)

The implication of this is that new regulations may be introduced that contain extra requirements on business, with increased costs, for uncertain benefit. The ABCB Chairman noted that these actions open the way 'for less than desirable regulatory outcomes for the community and can compromise the cost effectiveness test as set out in the IGA' (sub. 4, p. 43). The HIA agreed, saying:

... the IGA requires new regulation to be subjected to a regulatory impact assessment in order to ensure that governments do not introduce regulation for regulation sake and that regulations are cost beneficial. Without this safeguard the cost of buildings can rise significantly without commensurate benefit to individual building owners, or the general community, being achieved. (sub. 6, p. 28)

¹³ See http://www.abcb.gov.au/documents/bca_96/salt_attack_discussion_paper.pdf (accessed 28 September 2004).

Engineers Australia noted that many engineers operate across jurisdictional borders and are required to be familiar with multiple codes and the specific requirements of local authorities. It said:

The jurisdictional divide is, in many instances, not State or Territory borders, but rather local authority borders. This creates inefficiencies within the building and construction sector by adding to the cost and complexity of engineering design, which leads to increases in building costs. (sub. DR61, p. 3)

A survey conducted by MBA revealed extra costs of around \$2700 per new dwelling to meet additional council requirements. The amount varied by State — Tasmania was the lowest with a cost increase of \$1121 to build a new house, while New South Wales was the most expensive, at an extra \$2945 per house (sub. 24, p. 15). BPIC submitted that the fragmentation of the Australian market into an array of regulatory arrangements is ‘costly to administer, costly to comply with, provides no certainty and stifles innovation’ (sub. 23, p. 26).

However, as discussed in chapter 3, the concept of local decision making suggests that some local variations may be justified. In some cases, decisions made at the local level are the most appropriate, particularly when the greatest knowledge and the greatest impact of the changes is at a local level. HREOC commented that it did not want to see Local Governments stripped of the authority to make additional demands on developers where such increased requirements can be justified. It said that ‘many Local Governments have Development Control Plans or Access Policies that might, because of a very specific local circumstance, require more than the minimum (sub. DR60, pp. 1–2).

On the other hand, the PCA commented that:

... the ability of local government authorities to raise the bar on access issues above the nationally negotiated Premises Standard without any need for a Regulation Impact Statement will negate the work done by the BAPC [Building Access Policy Committee] over the last eight years. (sub. DR93, p. 11)

Blind Citizens Australia recommended ‘[t]hat state, territory and local governments continue to have the capacity to regulate for improved access for people with disabilities’ (sub. 20, p. 4).

The Australian Local Government Association (ALGA) supported the concept of subsidiarity, whereby problems are best solved at the level of government where they arise, and the continuing current role of Local Government. It said:

The ability for local government to respond to community expectation through innovative best-practice solutions should be supported. The objective of national consistency should not be used to stifle the development of bottom up initiatives that cater to the diverse needs of communities around Australia. (sub. DR86, p. 4)

The Local Government Association of Queensland supported ALGA's views and commented that 'Local Governments are a key connection between people and government and a reliable conduit to reflect new and growing aspirations of the local community' (sub. DR92, p. 1). The Municipal Association of Victoria considered that '[a]t the end of the day the overall goal of providing a national, consistent framework is supported. However, it should not come at the cost of prohibiting local needs' (sub. DR71, p. 2).

The key question is deciding under what circumstances a regulatory change that produces a net benefit for a particular community, but which would impose net costs if introduced for Australia as a whole, may be implemented.

How can the planning/building nexus be tidied up?

In order to fulfil objective 7, the problems resulting from the planning/building regulatory interaction need to be addressed.

Principles

The HIA suggested that mandatory regulations should only reflect minimum standards that are essential for all members of the community and that higher standards may be incorporated voluntarily by individuals (sub. 6, p. 12). This is consistent with BPIC's comment that market forces will provide the stimulus for products to exceed national benchmarks (sub. 23, p. 19) and the South Australian Government's suggestion that councils should use other mechanisms (such as rate rebates) to encourage 'best practice' (sub. 36, p. 12). MBA proposed that only when there are issues that are not covered by the BCA, should Local Government have the opportunity to create a by-law or local law (sub. 24, p. 8).

Local Governments do impose higher standards on matters contained in the BCA via regulation. If it is accepted that the BCA already reflects minimum acceptable community expectations for health, safety and amenity, then a first principle would be that jurisdictions could seek agreement that, if any Local Government did wish to impose a *new* building standard, they would either use non-mandatory means such as subsidies or rates rebates or that the matter would be taken up and progressed through formal processes that incorporate a suitably rigorous justification process involving impact analysis. (This issue was discussed in the PC report on First Home Ownership (PC 2004b, pp. 189–192)).

One option for this is to refer to the ABCB all Local Government standards impacting on building regulations. The ABCB Chairman noted that, in the report of the Small Business Deregulation Taskforce to the Australian Government, it was

‘recommended that no State or Territory should agree to any variation to the technical requirements for building requested by local governments unless this had been agreed to by the ABCB’ (sub. 4, p. 43).

The Tasmanian BRAC commented that:

If Local Government believes the BCA provisions are inappropriate then they should put the issue forward for review by the ABCB through their representation on the ABCB. (sub. 29, p. 4)

Currently, the IGA contains only a best endeavours clause where jurisdictional variations are to be limited, so far as is possible. Sending proposed regulatory changes to the ABCB for consideration would ensure the participation of all States and Territories and is more likely to lead to an agreed national position, thus maintaining consistency of regulations across Australia. It would also ensure any new regulations pass a cost-benefit test. To support this, BPIC suggested:

State and territory heads of power allowing municipal governments to create their own regulations should be revoked where they directly conflict with the BCA. ...

Where this legislative provision currently exists ... governments should implement procedures to enforce the requirement in a more rigorous manner to ensure municipalities are accountable in their local law making to the broader community. (sub. 23, p. 20)

For example, in Victoria, every municipality has a planning scheme that includes the State Planning Policy Framework, the Local Planning Policy Framework and zone and overlay provisions that control the use and development of all land. The State’s planning schemes are based on an over-arching State policy framework and strategic plan. The planning scheme may be changed by council by means of an amendment but any amendment requires the Minister for Planning’s approval. Further, the Victorian legislation makes a clear distinction between a planning permit issued under the Planning and Environment Act and a building permit issued under the Building Act. The Victorian Government said:

In Victoria, section 13 of the *Building Act 1993* and section 123 of the *Local Government Act 1989* (schedule 8) render a local law ineffective or liable to revocation if it provides for a matter in the building regulations or a matter for which a regulation may be made under the Building Act. (sub. 51, p. 5)

The Queensland Department of Local Government, Planning, Sport and Recreation said that ‘[u]nder Queensland law, a planning scheme cannot override the BCA’ (sub. DR96, p. 2).

The NSW Government has indicated it currently has under consideration, as part of the current legislative and State policy reform processes, the appropriateness of

Local Government authorities setting higher standards than the BCA on matters regulated by that Code (sub. 53, p. 6).

It is also important to address the problem underlying the introduction of building regulations through planning schemes – Local Governments feel they must act because the speed of response to their community’s need is not fast enough. As noted in chapter 8, some participants felt ABCB processes were too lengthy and time consuming. There is a balance to be struck between getting Local Government input, undertaking a robust analysis of costs and benefits, and achieving a national response.

As such, a second option may be to address Local Government concerns at the State level, so that an impact analysis is still undertaken and the regulation could potentially be uniform at least at that jurisdictional level. A requirement could be that a building regulation imposed by a Local Government be included in the BCA appendix of the relevant State, to support the transparency of building regulation. It could also be automatically referred to the ABCB for discussion, for possible incorporation into the next BCA amendment, if appropriate, for national adoption. The ABCB could maintain a register of State RISs undertaken for Local Government building regulations, to help inform Board discussions.

A review could also be undertaken, with a view to revamping the decision-making processes of the ABCB so as to speed up the review of technical matters.

Another, more constraining option, would be for the State Governments to take action to prohibit their Local Governments establishing building requirements.

Delineation of planning/building issues

A number of interested parties agreed that regulation-making powers relating to planning and building needed to be better delineated. The ABCB Chairman suggested that ‘[d]efinitive direction on the respective roles of building and planning in controlling amenity would remove uncertainty and assist in the consolidation of all technical requirements affecting the design and construction of buildings’ (sub. 4, p. 12). Anything that could be contained in the BCA, should be, rather than in local planning regulations (sub. 4, p. 45). The HIA commented that ‘there appears to be general acceptance among regulators and industry that any regulation relating to the design and construction of buildings should be contained within the BCA’ (sub. 6, p. 18).

The Tasmanian BRAC commented on the need for a delineation between building and planning:

The Tasmanian experience of separating the Building and Planning Legislation has proven to be a worthwhile exercise and is well regarded by the Industry. This separation needs to be maintained and encouraged. ... some Councils require increasing of the building standards above and beyond the BCA requirements through planning permits and this is not desirable. All that is needed is an agreed delineation between the two processes. What is a planning issue and what is a building issue should be nationally agreed. Planning Schemes and amendments should be regularly checked to verify that they are not in conflict with the BCA before adoption. (sub. 29, p. 4)

The Victorian Department of Sustainability and Environment suggested a potential split between planning and building requirements, where energy ratings and energy-efficiency standards, passive solar design, insulation, natural ventilation, shading of windows, thermal efficiency and the use of low embodied energy materials would be enforced through Victorian Building Regulations (2003, p. 45).

The Municipal Association of Victoria noted that it is sometimes difficult to maintain a complete separation between planning and building requirements. It commented:

The purported reason for including some planning type requirements in the building approvals system, at least in Victoria, is because of the costs and delays often associated with the planning assessment system. The Victorian Government has been particularly concerned with subjecting single dwellings to the planning process. It is considered that despite the blurring of the planning and building requirements, including planning type requirements in the building approvals system has not caused any major concerns. (sub. DR71, p. 3)

MBA stated:

It is our view that planning matters should only deal with the allotment or land use issues and environmental and other issues outside the building. Within the building envelope the building laws and regulation, i.e., the BCA, should control all the health, life, safety and amenity issues. (sub. 24, p. 8)

Other interested parties suggested there may be a potential delineation between 'macro' planning issues and 'micro' planning issues, with 'micro' issues more closely aligned to building approvals. 'Macro' issues such as town planning and zoning are clearly planning and development issues, while 'micro' issues such as siting on a block sit more comfortably within the scope of building regulations and associated administrative processes.

As part of its work on a consistent regulatory framework, the ABCB is involved with the Development Assessment Forum (DAF) in its attempts to revamp the planning process across jurisdictions (sub. 4, p. 33). Although DAF is 'process-focused', this working relationship may contribute to a greater understanding of the range of planning and building issues, which would be a useful step in the

establishment of clear delineation between planning and building. The South Australian Government noted ‘the ABCB is now represented on the Development Assessment Forum and there is the opportunity to at least define a desirable delineation between planning and building matters on a national basis’ (sub. 36, p. 6). In discussing the benefits of a harmonised administrative process for building regulations, the Allen Consulting Group commented that it is likely that ‘maximum benefits will be achieved through an integrated reform process involving building administration and development assessment’ (2002, p. 11).

To support the delineation of planning and building regulations, MBA suggested:

... there is a case for the IGA to have authority to arrange better interaction and referencing between planning and building provisions. This would go some way to alleviating the conflict that currently exists ... We believe that this interaction and cross-referencing should be formally written into the IGA as opposed to the current practice whereby this is done on an ad-hoc basis. (sub. 24, p. 5)

Participant reaction

A number of submissions supported the recommendation contained in the draft report. BPIC indicated that State and Territory Governments should ‘implement measures to ensure that building regulations are not dealt with on a local basis’ (sub. DR84, p. 2). The Victorian Government supported ‘the need to avoid the erosion of national consistency by local government’ (sub. DR91, p.3). The ABCB Chairman strongly supported the draft recommendation, but noted that ‘it is a matter for State and Territory Ministers’ (sub. DR75, p. 11). Similar views were expressed by the MBA. It said that ‘[l]egislation should be introduced, similar to that in Victoria, to restrict local governments from eroding a nationally consistent BCA’ (sub. DR82, p. 7).

The PCA commented that amendments at a Local Government level ‘are never costed through a Regulation Impact Statement and rarely justified’ (sub. DR93, p. 18). Further, Engineers Australia said that, while planning and building authorities and local governments ‘may believe they are more representative of community views, in some instances, the result is the imposition of onerous and contradictory building rules’ (sub. DR61, p. 2).

FINDING 6.5

Local Governments, through their planning approval processes, are imposing regulations on building. While this may offer benefits, there are concerns about the

resulting regulatory inconsistencies across Australia and a lack of rigorous regulatory assessment.

RECOMMENDATION 6.10

The future work agenda for the ABCB should include an examination of ways to reduce the scope for the inappropriate erosion of national consistency of building regulation by Local Governments through their planning approval processes. Avenues for this include:

- the possibility of Local Governments being required to seek prior approval from the relevant State Government to apply building requirements that are inconsistent with the BCA;*
- requiring these changes to be assessed as to whether net benefits would accrue, via the originating State;*
- maintaining a register of State RISs undertaken for Local Government building regulations to help inform ABCB discussions; and*
- requiring that any Local Government variation that is inconsistent with the BCA to be approved by the responsible State Minister (similar to the Victorian approach, where local council changes to the planning scheme must be approved by the Minister for Planning under an over-arching State policy framework and strategic plan).*

To assist the design of such a system, the ABCB, in consultation with key stakeholders, should examine the possibility of defining a clear delineation between those issues to be addressed by planning regulation and those issues to be addressed by building regulation.

A new IGA would be the appropriate mechanism to empower the ABCB to pursue draft recommendation 6.10 (see chapter 11).

7 Regulatory systems: compliance and delivering outcomes

The ultimate value of the Building Code of Australia (BCA) depends crucially on the extent to which it is administered and enforced efficiently by the States and Territories. Even the best formulated regulations are ineffective if compliance is not encouraged and enforced. The ABCB's current mission statement recognises the role that broader regulatory systems have in achieving the efficient and cost effective satisfaction of community expectations for building.

In the past, to improve compliance and enforcement, emphasis has been placed on bringing greater consistency across jurisdictions to the administration of the BCA, through model legislation. More recently, attempts have become more focused on advancing individual reforms, such as development of national standards and accreditation for building certifiers. The momentum behind initiatives to gain greater national consistency in administration of the Code and to contribute explicitly to achieving compliance appears to have waned, perhaps due to the inherent difficulties and obstacles encountered. Nevertheless, the possibility of potential benefits from achieving improved compliance and more effective enforcement remains.

This chapter analyses:

- the extent to which the administration of the BCA makes a substantive difference to building outcomes;
- the ways in which improvements in compliance and enforcement could be made, including measures related to national consistency and cost effectiveness of the regulatory system (IGA Objective 1), opportunities for deregulation (IGA Objective 3) and the efficiency of the regulatory environment (IGA Objective 8); and
- whether the ABCB should be more actively involved in compliance in its future reform agenda.

7.1 Administrative systems — history and issues

The ultimate aim of administrative systems for the BCA is the achievement of compliance with building regulations. These systems underpin the delivery of the requirements of the BCA and their desired outcomes. Throughout this chapter, the term ‘administration’ is used to refer to the range of tools used by jurisdictions to achieve compliance with the requirements of the Code and the enforcement mechanisms used in cases of non-compliance.

The focus of much of the regulatory activity involved in the administration of the Code is about allocating and enforcing responsibility, risk and liability for compliance with the Code. Without a clear allocation of responsibility, important tasks may be left undone, with potentially serious consequences for the health, safety and amenity of those using buildings. As stressed by the Western Australian Department of Housing and Works, there is a need to ‘clearly allocate responsibility for aspects of design, checking, construction and maintenance and to record who is taking that responsibility’ (sub. DR90, p. 3). Administrative systems are thus an essential complement to the technical regulations of the BCA.

In principle, there are a number of mechanisms that may be employed within an administrative system to encourage and support compliance with building regulations. These include, for example:

- the availability of training, to help ensure building practitioners are competent to implement Code-compliant building solutions. This would encompass knowledge of the BCA (discussed in chapter 9) as well as skills-based training;
- licensing and registration schemes, including ongoing competency requirements and audits;
- insurance requirements, to provide incentives for compliance and some measure of consumer protection;
- contractual arrangements, to clearly set expectations and the consequences of non-compliance;
- a system of inspection of work and other approval mechanisms, to spot non-compliance at an early stage (and maintenance procedures to ensure on-going compliance of certain essential aspects of buildings);
- enforcement mechanisms, to implement appropriate strategies in the case of non-compliance with regulations; and
- dispute resolution processes, so that continued or disputed non-compliance can be dealt with quickly, fairly and cost-effectively.

Supporting these mechanisms should be a robust system of information dissemination, so that all players know the ‘rules of the game’ and where to go for help.

Currently, each State and Territory determines its own approach to the administration of building regulations — details of the various aspects of their administrative systems are contained in appendix G. Most employ a mixture of the mechanisms listed above.

To date, the ABCB has played a relatively minor role with respect to administrative systems, compared with its activities in other core areas, such as developing the Code. The ABCB inherited the legacy of past work on model administrative legislation (discussed in more detail below) and has pursued some individual reforms. However, the ABCB noted that a decline in resources devoted to building regulation in some jurisdictions has led to an increased workload for the secretariat, as queries are diverted to the ABCB for attention.

History

The prominence given to issues concerning the administrative systems implementing the BCA has varied over the last 40 years. For some time, the issues were ‘left on the backburner’ while national consistency in the BCA was progressed. In a submission to the Productivity Commission’s Inquiry into First Home Ownership, the ABCB noted that, in early attempts to formulate a building code that incorporated both technical and administrative matters, it was:

... clear that the difficulty in obtaining agreement on administrative provisions was distracting the States from agreeing on the technical provisions. Consequently, it was agreed to concentrate solely on the technical building requirements and that work eventually led to the production of the Code. (ABCB 2003a, attachment c, p. 12)

However, by the 1990s, interest in the administrative aspects of building regulation began to increase again. In 1991, the Building Regulation Review Taskforce (BRRT) recommended a Model Administrative Code be developed as a key element of the national building framework (BRRT 1991, p. 9). At the same time, model building legislation was published by the Australian Uniform Building Regulations Coordinating Council (AUBRCC), the ABCB’s predecessor. Its purpose was to ‘enable the introduction of microeconomic reform in this vital industry, to enable national uniformity and consistency of approach, and to increase efficiencies within the industry’ (AUBRCC 1991, p. 10, emphasis added). In their commentary on the model building legislation, AUBRCC (1991, p. 23) noted that a logical next step for their work would be the development of a model set of building regulations to complement the model legislation.

The model legislation had extensive input from the Victorian Government and introduced significant reforms in the areas of certification and liability. The key elements of the model legislation were:

- limitations on liability for building practitioners — introducing a 10 year cap on liability for property damage due to defects in design, construction, approval or inspection of building, and replacing joint and several liability with proportionate liability;
- competition in the provision of building approvals and inspections — allowing private sector building certifiers to undertake these tasks, in addition to local government certifiers. (At present, only private certifiers¹ can provide building approvals and inspections in the ACT and the Northern Territory.);
- compulsory registration of building practitioners; and
- compulsory insurance for building practitioners.

Lampert (1999) pointed out that the reforms constituted ‘an integrated approach to building regulations which recognised that each part is dependent on other parts’. For example, requiring insurance of building certifiers aimed to promote the smooth operation of competition in the certification process, by ensuring that there were enough funds to rectify any defects resulting from errors or omissions by the private certifier.

The Municipal Association of Victoria considered that the model legislation was a significant reform:

... the model Building Act, which introduced the option of private building surveyors, has been one of the most significant changes to the building assessment process and has been instrumental in reducing the turn around time of building applications. (sub. DR71, p. 3)

However, few States and Territories adopted the model legislation in its entirety. The ABCB noted that, while the Building Acts of Victoria, the Northern Territory and Tasmania were revised to follow the principles of the model legislation, NSW, South Australia and Queensland incorporated only some of the features of the model legislation in their legislation (ABCB 2003a, attachment c, p. 13).

¹ Throughout this report, the term ‘certifier’ refers to professionals who carry out the function of building certification, be they building surveyors, engineers, architects or other appropriately qualified practitioners, employed by government authorities or privately employed. The Commission notes Mr Graeme Hunt’s concern that the ‘proper terminology is “building surveyor”’ (sub. DR83, p. 1). However, in the Commission’s view, the term ‘certifier’ for the purposes of this report more clearly describes the nature of the job undertaken by these practitioners and is inclusive of the variety of professions that undertake the job of certification. This term also appears to be accepted and used by industry and government bodies.

Meanwhile, Western Australia has recently commenced a review of its building legislation. The Housing Industry Association (HIA) pointed out one potential reason for the slow take-up of the model legislation:

At the time the Model Building Act was being developed, some jurisdictions were concurrently undertaking reviews of their existing legislation and had already expended significant resources on the development of new processes and procedures which had been approved by respective governments. In this context, it is always unlikely that these jurisdictions would be prepared to abandon their substantial endeavours and recommence a legislative review based on the proposals within the Model Act. (sub. 6, p. 38)

Currently, therefore, a number of differences exist across States and Territories in their approach to compliance and enforcement of building regulations. These differences are contained both in jurisdictions' building legislation and in administrative regulations and procedures. The ABCB noted that '[s]ignificant differences remain even between those States and Territories that have chosen to most closely follow the Model Building Legislation' (ABCB 2003a, attachment c, p. 13). For example, the terminology used to describe similar processes and events can differ widely, as can the allocation of building related functions to various government departments and bodies. States and Territories may also differ on the length of time authorities are allowed to take for their deliberations. The Allen Consulting Group also noted the disparities in government personnel resources devoted to building control, with 84 staff in Victoria compared to eight staff in New South Wales (2002, p. 22).

Compliance issues

There are concerns that the degree of non-compliance with building regulations is higher than is desirable and is leading to poor building outcomes. This suggests that current enforcement and compliance systems across States and Territories may be deficient.

For example, the Human Rights and Equal Opportunity Commission noted that, through its participation in the review of access provisions in the BCA, it had become more aware 'of the frequency with which buildings are occupied without meeting even current BCA requirements' (sub. DR60, p. 2).

Other interested parties pointed to situations where 'corners had been cut', accountability was unclear and dispute resolution avenues did not result in satisfactory outcomes for building consumers. For example, the Australian Institute of Building commented:

Sometimes the owner wins and sometimes not, but the remedy is almost always monetary and rarely is the building brought to the standard that should have obtained, largely because the cost and the disruption are seen as being too great. (sub. DR67, p. 3)

Some submissions suggested ethical issues were contributing to poor compliance and building outcomes, for example, BCA Logic noted:

- Developers are “shopping around” for Certifiers and Designers who agree with their design approach prior to their appointment. ...
- ... some solutions appear to be prepared in order to save money for the developer, and not for the protection of public being the end user of the building. (sub. 55, p. 6)

Others suggested jurisdictional variations were contributing to non-compliance:

Master Builders believes that the Code should be complied with by all parties in the procurement chain, but this becomes increasingly problematic with the variations that are applied by various levels of government. (Master Builders Australia, sub. DR82, p. 9)

In NSW, the 2002 *Report Upon the Quality of Buildings* highlighted a number of problems in the NSW residential building market, including:

- buildings that did not meet BCA requirements, including those that had been certified as compliant by either council or private certifiers;
- principal certifiers not properly performing their functions;
- builders and certifiers not operating in the interests of the property owner;
- dwellings that were not consistent with the approved design that had been certified for occupation; and
- the operation of unqualified builders (Campbell Report 2002, p. 13).

The report precipitated a number of regulatory reforms in the building sector, with further reforms under consideration by the ABCB (see sub. 53, pp. 1–2).

However, it is difficult to draw a general conclusion about the degree of non-compliance across Australia and the extent to which better administrative systems can fully address this. The extent of the problem appears to differ across States and Territories and over various types of building. It is also important to recognise that building owners themselves bear some responsibility for ensuring good building outcomes (chapter 3). As noted by the Canadian Commission on Building and Fire Codes, all buyers have responsibilities for protecting their own best interests, including:

- checking into companies’ reputation, experience and qualifications,
- checking references,

-
- getting legal review before signing contracts,
 - allowing sufficient time and money for better products, careful work, and good inspections,
 - choosing appropriate insurances and warranties,
 - inspecting completed work,
 - reporting problems promptly, and
 - doing required ongoing routine maintenance. (2004, p. 6)

The remainder of this chapter attempts to further explore opportunities for improvements in compliance and enforcement and the role the ABCB might play in delivering these improvements. The next six sections explore the various areas of administration, noting the reasons for regulation, any issues with the current arrangements and suggestions for improvements. Section 7.8 discusses whether increased national consistency in building administrative systems would be of use in supporting improved compliance procedures, while section 7.9 offers suggestions for the future role of the ABCB in finding more effective ways to administer the Code.

FINDING 7.1

There are concerns that the current compliance and enforcement systems for building regulation may be deficient, to varying degrees across jurisdictions.

BCA compliance vs quality

An important issue when looking at compliance is the level of the standard to be complied with. Chapter 5 discussed the concept of minimum acceptable standards and the role of community expectations in formulating building regulations. However, some interested parties also raised the issue of building quality, in particular, whether compliance with the current BCA is sufficient to result in the construction of quality buildings. The Australian Institute of Building suggested it was not sufficient, saying:

Contracts and specifications have been cited as ways of mandating a minimum quality performance [but] ... In reality, unless minima are mandated in the code or some other enforceable document, the industry will always regard a standard as something to aspire to rather than something to use as a base. (sub. DR67, p. 4)

Quality is a subjective matter — it means different things to different people and what one individual may regard as acceptable quality may be quite unacceptable to another. People’s ability and willingness to pay for a particular level of quality is also varied.

The BCA inherently contains a certain level of building ‘quality’ that achieves health, safety and amenity requirements. NATSPEC noted:

In some instances this [quality level] arises out of the health and safety objectives, for example it sets durability requirements for some building components like wall ties, mandates termite protection and sets standards for waterproofing.

In addition, some provisions of cited standards exceed the minimum for health and safety. For example the minimum ventilation rates in AS 1668.2 are more oriented to comfort (for example no perceptible odours) than minimum health requirements. (sub. DR69, p. 3)

As such, adequate compliance and enforcement of the Code goes some way towards supporting the construction of ‘quality’ buildings.

Some jurisdictions provide additional guidance material relating to acceptable quality levels. For example, Victoria’s *Guide to Standards and Tolerances* aims to clarify areas of building standards related to domestic building work that are not prescribed in legislation, building control or policy and are not articulated by contract documents. Specification templates for attachment to contracts, detailing the standards to be achieved in construction, are also available and give further scope for consumers to set quality standards (see box 7.1).

And of course, quality is fundamentally influenced by the skills of the building practitioners, the level of workmanship and the properties of the materials used. The Australian Institute of Building remarked ‘[q]uality ultimately is a consequence of the capability of the people who perform the building and construction work’ (sub. DR67, part 2, p. 1).

Box 7.1 Quality guidelines

Jurisdictions may issue guidance material to assist consumers in the building process. For example, the Victorian Building Commission published its *Guide to Standards and Tolerances* to:

... indicate the Building Commission's view of reasonable standards and tolerances for domestic building work, where such standards and tolerances are not articulated by the contract documents and are not prescribed in:

- the *Building Act 1993*;
- the *Building Regulations 1994*;
- the *Building Code of Australia (BCA)*; and
- the *Australian Standards* referenced in the BCA. (Building Commission 2002, p. 1)

The guide aims to indicate acceptable performance levels and to assist builders and owners with matters that are commonly the subject of dispute (Building Commission 2002, p. 4). Topics covered in the current guide include footings and foundations, stormwater systems and painting. The New South Wales Office of Fair Trading has published a similar guide — the *Guide to Standards and Tolerances for home builders and renovators*.

As well as State and Territory guidelines, guidance materials are also available on the market. For example, NATSPEC is a non-for-profit company that provides generic building specifications to building practitioners, for use in drafting specifications for individual building projects. The specifications are sold in packages (for example, the 'Domestic' package for conventional homes), each incorporating a 'quality control regime of standards conformance, testing, inspection and sample submission' (sub. DR69, p. 2). The specifications cover a large range of work sections (for example, demolition, paper hanging) and contain a combination of reference material (including the relevant BCA requirements) and guidance commentary. They are designed to be a 'wrap around' product, going beyond just BCA requirements, to take building projects from start to finish. The specifications are generally used as part of a building contract.

In its submission to the NSW Campbell Inquiry, NATSPEC suggested specifications form a vital part of ensuring quality outcomes:

We submit that the quality of buildings suffer because:

- Building design professionals (architects, engineers etc) often concentrate on producing drawings without giving full attention to specifying what is to be done to what end.
- Building certifiers often do not appreciate the importance of the specification; many aspects of conformance with the BCA can only be covered in the written form of the specification.
- Contractors and tradespersons do not understand and commonly ignore the written requirements of specifications preferring, often to rely on the drawings which only tell a part of the story. (NATSPEC 2002, p. 3)

Sources: Building Commission 2002; sub. DR69; and <http://www.natspec.info> (accessed 4 October 2004).

It is clear, then, that quality is influenced by the whole system of regulation and compliance mechanisms in building. As noted by the Campbell Report:

... if the home building process is to consistently produce good quality dwellings, “quality” must be an ingredient in all elements of the process, these being:

- the quality of the building practitioners
- the quality of home building as prescribed in codes and standards
- the quality of home building as prescribed in contracts
- the quality of information systems for consumers and participants
- the quality of the planning process and certification systems for home building
- the quality of the dispute management system for home building. (Campbell Report 2002, p. 6)

The Chairman of the Canadian Commission on Building and Fire Codes took a similar view:

... the context for building codes is extremely important. Building codes are only part of the process – other elements have a key role to play. Well functioning markets with professional building practitioners, a sound legal framework, reliable standards and testing, warranties and insurance, education and training – all have an important role to play in the process of promoting the construction of better quality buildings. (Clemmensen 2003, p. 7)

Overall, in the absence of a clear market failure, it is not obvious that it is desirable to further regulate for an acceptable level of building quality. Adding another layer of regulation may simply impose a net cost. Furthermore, the success of the regulations would still depend on the skills of building practitioners and the effective operation of compliance and enforcement mechanisms. Given the concerns about current compliance outcomes, relying further on regulation to achieve quality goals may be ineffective.

This was the stance taken in Canada, where quality of construction was identified as an issue that was not appropriate for inclusion as a building code objective (Clemmensen 2003, p. 3).

Ensuring that the current compliance mechanisms are working effectively will contribute directly to better quality buildings.

7.2 Training

Education and training programs are a key mechanism for giving building practitioners the ability to undertake their activities in a professional and skilful manner. Formal education and training for the many building industry occupations may be obtained through several different pathways: apprenticeships and vocational education and training (VET) (available to school students as well) or university training. Qualifications range from Certificates and Diplomas, to Bachelor and post-graduate degrees.

The ABCB is tasked, via IGA Objective 9, with looking at matters ancillary to its objectives, including training. To assist in raising education awareness, the ABCB developed a ‘One Stop Education Shop’ website, which:

... identifies accredited courses relating to the building and construction industry which can lead to a qualification. ... [and] also provides other information including the Recognition of Prior Learning Framework, National Competency Standards and the ABCB Industry Based Learning Program. (sub. 4, p. 17)

Achieving IGA Objective 3 on deregulation has also been assisted by the ABCB’s activities in training, with the establishment of a national competency and accreditation framework for certifiers (discussed later in this chapter).

However, some participants raised concerns that training has declined or is unsuitable, with adverse impacts on the numbers and skill levels of building practitioners. These concerns are consistent with issues raised in several other forums in recent years.

Skill shortages

Building trades generally obtain qualifications through the VET sector. There are currently three Training Packages for the building and construction industry, with a fourth under development (see box 7.2). Educational attainment has historically been low, with the NCVET (2001, p. 10) finding that, in 1996:

- fewer than 1 per cent of employed persons in the building and construction trades had a degree or higher as their highest qualification (cf 15.5 per cent of the total Australian workforce);
- 1.7 per cent had a diploma or associate diploma (cf 8 per cent of the total workforce);
- 44.1 per cent had a skilled vocational qualification (cf 14.2 per cent of the total workforce); and
- 45.1 per cent had no formal post-school qualifications (cf 51.3 per cent of the total workforce).

Box 7.2 Training packages in the building sector

Training Packages for the building sector were created by Construction Training Australia (CTA) – formerly the national Industry Training Advisory Body (ITAB) for the industry. The body covered residential construction, non-residential construction and engineering construction, and its main task was to develop the standards that are required for jobs in the industry.

The Training Packages available are:

- Civil Construction: as well as a general qualification it also covers qualifications relating to plant, road construction and maintenance, tunnel construction, bridge/marine construction, foundation work, railway construction and maintenance, pipelaying and road marking.
- General Construction: as well as a general qualification it also covers qualifications relating to wall and floor tiling, wall and ceiling lining, solid plastering, painting and decorating, structural cladding, bricklaying and blocklaying, carpentry, roof tiling, materials handling, demolition, concreting and steelfixing and building surveying.
- Off-site Construction: covers general off-site construction qualifications as well as qualifications in shopfitting, joinery (timber/aluminium/glass), stairs, pre-fabrication, machining, monumental/installation, sign writing/computer operations, sign manufacture and neon manufacture.

A Construction Services Training Package (covering general plumbing and drainage, air conditioning and mechanical services, gasfitting, roofing and cladding, fire protection and urban irrigation) was endorsed by industry in June 2003 and was forwarded to ANTA for endorsement.² Packages are endorsed for a period of three years, after which they are reviewed to ensure currency and relevance.

There are also Training Packages formulated by other bodies that cover trades working in the building and construction industry. For example, the Electrotechnology Training Package (currently under review) offers qualifications for electricians, air conditioning technicians and lift mechanics (Stenning 2002b, p. 63).

Training Packages contain national competency standards – the skills and knowledge that a person must be able to demonstrate at work – and assessment guidelines to ensure valid, reliable and fair judgments to be made about an individual's performance against those competency standards. Each Training Package contains a number of qualifications from AQF level 1 to AQF level 3, made up of a combination of competency standards/units that students must complete. For example, in the Diploma of Building Surveying, there are 15 core units on surveying and nine core units on 'cross industry' skills that must be completed.

Source: See <http://www.constructmycareer.com.au/index.cfm?MenuID=174&TopMenuID=26> (accessed 20 August 2004).

² From July 2005, ANTA is to be abolished and its responsibilities taken into the Department of Education, Science and Training (Howard 2004).

Construction Training Australia (CTA)³ was concerned that skill levels would fall as the propensity to train and the intensity of training declined along with firm size in the building and construction industry. It noted:

In the private sector as a whole in 1996, firms with more than 100 employees spent 340 per cent more per employee on structured training than firms with less than 20 employees. The proportion of firms providing structured training is 6.6 times greater in larger firms than smaller firms. (CTA 2003, p. 13)

CTA also suggested there had been a relative decline in apprenticeship numbers compared to the level of activity in the industry, saying ‘training activity is lagging far behind the levels of building and construction activity and employment resulting from such activity’ (2003, p. 34). CTA suggest this may be partly due to the trend to smaller firms (perhaps firms cannot afford apprentices or cannot offer the variety of work required) or the privatisation of government entities (with the pressures of the bottom line within privatised entities meaning less apprentices are hired) (2003, p. 16).

The Australian Institute of Building expressed similar views:

... methods of engagement of labour have changed from regular employment to subcontracting, a staccato arrangement that is not conducive to indenturing apprentices.

Governments under the modern dogma of efficiency have forsaken their traditional role as builders of their own buildings and trainers of a large body of apprentices.

Technical colleges have seen numbers drop and because of their imposed requirement to show a financial return, many of them, particularly in the regions, have simply cut out the courses. (sub. DR67, p. 4)

However, ACIL (1998) called into question the notion of skill shortages and under-training in the building and construction industry. The NCVER (2001, p. 32) also commented that the sector compared favourably with other trade workforces and with the workforce as a whole on indicators such as levels of separation from the trades, take up of apprentices and levels of stock of skills in the workforce.

The quality and applicability of courses

Concerns have also been raised about training courses, both in terms of their quality and their applicability to the industry. A submission to the Campbell Report noted course content was not always in line with current practice:

³ CTA ceased trading on 31 May 2004. A new advisory arrangement, the Construction and Property Services Industry Skills Council, is expected to commence operations shortly.

The TAFE system has been under constant criticism for not having its courses and teachers fully up to date with current practices, materials, codes and regulations. (2002, p. 61)

CTA also noted those delivering training may not be well equipped:

So far Training Packages have been implemented with very little personal development opportunities for the trainers who are involved in providing training and assessment services. The discussions that CTA has had with RTOs indicate that some trainers continue to find it difficult to make the transition from curriculum based training to competency based training and assessment. (CTA 2003, p. 64)

Additionally, the Australian Institute of Building expressed concern with the assessment guidelines used by training bodies:

The new national assessment guidelines mean that people are assessed to competency standards, meaning that a person can become a carpenter by passing a one-day (or less) assessment rather than providing a trade certificate that has required three (or more) years of study on the job and at TAFE, plus an extra 'journeyman' year for unsupervised experience. The new assessments do not even necessarily involve the ability to read or write in English or at all. (sub. DR67, p. 4)

A further debate is whether 3–4 year broad-based apprenticeships are still applicable to the more specialised contract/subcontract environment. CTA commented:

The specific training needs of this segment of the Construction Industry workforce have not been well catered for by the traditional apprenticeship system, which is still largely geared to providing broad, all-round trade skills. ... Training Packages and New Apprenticeships, could, if applied creatively, provide the basis for flexible training programs to meet the needs of the specialist sub-trades workforce. However, current industrial relations culture and to some further extent, State/Territory licensing issues, prevent this from currently happening to the satisfaction of many in the industry. (CTA 2003, p. 16)

The HIA argued that changes in the building industry have put pressure on prescribed courses to adapt to changing industry requirements. It submitted:

Many current qualifications within the Training Package for the building and construction industry do not adequately reflect the jobs people actually do, particularly in the housing industry.

The lack of relevant training for work performed therefore is the primary reason why so many workers and contractors do not have formal qualifications, rather they have gained the skills they need on the job in the area in which they choose to operate. (sub. DR85, p. 10)

The HIA suggested increased flexibility in the qualification structures is required to meet training needs, but that industrial relations pressures and resistance by

entrenched parties are blocking progress (sub. DR85, p. 10). The Queensland Government Department of Local Government, Planning, Sport and Recreation also noted that the effectiveness of training is enhanced if qualifications are linked to licences, as necessary training outcomes can be identified and scopes of work allowable under licences can be structured appropriately (sub. DR96, pp. 6-7).

However, a counter-concern is that a more specialised trade qualification leads to more limited occupational outcomes and that this may have a number of adverse consequences. CTA noted:

Building apprentices and tradespersons such as carpenters and bricklayers who have been engaged in a narrow range of tasks have difficulty understanding the broad scope of the construction tasks to which they contribute. This means they often require higher levels of supervision; they cannot identify and correct faults in the work of other tradespersons; and they find it difficult to adapt if conditions or specifications differ across projects. Further, it has been argued that because of their specialisation, they have lower intra-industry mobility than multi-skilled tradespersons. ... [this] has the effect of increasing labour shortages within the industry as a whole. (CTA 2003, p. 59)

ACIL saw the limitations of the apprenticeship system as the ‘inability to obtain the necessary qualifications by attending a tertiary institution full-time and gaining the necessary practical training through supervised work experience, including at the designated tertiary institution’ (1998, p. 9).

Role of the ABCB in training

The Commission’s draft report sought from interested parties further information on training, in particular, whether there was a future role for the ABCB in this area.

Some roundtable participants argued that the ABCB should set the agenda for training, with the Fire Protection Association submitting that an important role of the ABCB should be ‘the development of a coordinated national policy and framework for awareness, education and training’ (sub. DR70, p. 5). However, other participants had concerns about a larger role for the ABCB in training. The Building Products Innovation Council (BPIC) pointed out that the ABCB would need to develop competencies in the education and training area, and suggested it would be better to involve other bodies such as ANTA, HIA, MBA and ACCI (sub. DR84, p. 3). The HIA argued that the building industry should take responsibility for developing and delivering educational and training material for industry practitioners (sub. DR85, p. 11).

Nevertheless, most interested parties agreed that the ABCB had an important role in providing information about the BCA. The HIA believed the ABCB should focus on ‘the development of educational material on changes to the BCA’ (sub. DR85,

p. 11). Other submissions suggested the ABCB should take a more active role in the provision of information (especially with respect to BCA changes) (see, for example, the Victorian Government, sub. DR91, p. 2). This role is discussed further in chapter 9.

The Commission agrees that information provision should be an important task for the ABCB and notes that the ABCB could provide a useful forum for discussion about wider training issues in the industry.

7.3 Practitioner licensing, accreditation and audit

Licensing and accreditation

Licensing and accreditation are both concerned with attesting that an individual or firm meets certain criteria before being able to practise. Licensing is usually required by governments, while accreditation is usually undertaken by professional bodies. As noted by the Tasmanian Department of Infrastructure, Energy and Resources, a system of building practitioner licensing and accreditation:

... addresses the information asymmetry which frequently disadvantages consumers. As consumers are frequently non-repeat customers for these services they have difficulty assessing the product prior to purchase. By requiring that building practitioners ... be accredited, owners will be better informed ... Typically consumers will be able to expect:

- *the practitioner meets qualification and competence requirements*
- *he/she has a requisite level of experience*
- *he/she has undertaken continuing professional development*
- *he/she may be audited, and a complaints/investigation procedure is in place*
- *he/she has the required insurance.* (1999, p. 16)

To try to ensure good building outcomes, many States and Territories have implemented licensing schemes to ensure that building work is undertaken by suitably qualified building practitioners. Licensing of building practitioners was also seen as an important complement to changes to liability rules, as it provided more information to insurers about the risks presented by an individual practitioner and so facilitated the provision of insurance products. (Insurance is discussed later in this chapter.)

Accreditation fulfils a similar purpose to licensing. It generally indicates compliance with professional guidelines on qualifications and continuing education.

Proof of accreditation may be required in order to be registered in an occupation and be eligible for a licence.

The scope of licensing, and the requirements to get a licence, vary across jurisdictions. As Arup Fire noted, ‘whilst there is a national Code, those using the Code are not accredited or registered through a nationally consistent system’ (sub. 15, p. 3). States and Territories differ in the range of practitioners that require a licence to practise and, in many cases, the qualifications and experience required to be eligible for a licence also differ. While the operation of mutual recognition allows mobility of licensed practitioners across jurisdictions, there are concerns about the consequences of these variable requirements, as discussed below. (Chapter 9 notes the importance of including knowledge of the BCA in practitioner qualifications.)

Issues for the licensing system

Some industry professionals expressed a need for an increase in the *scope of licensing*. For example, Hilti Pty Ltd suggested training and licensing is required (preferably on a national level) for installers of passive firestop products — it believed the quality of installation of passive firestop products can be poor and that this has brought into question the safety of some buildings (sub. 7, p. 1). The Fire Protection Association of Australia noted that one of its objectives for the building industry is ‘the introduction of a licensing and accreditation system for all individuals and companies involved in fire protection related activities’ (sub. 19, p. 9). The Association suggested that occupational licensing would encourage more rigour in regulatory compliance (sub. DR70, p. 3).

A number of interested parties expressed a desire for more *uniform licensing processes* across jurisdictions. The National Fire Industry Association believed this would reduce duplication and costs (sub. 3, p. 2). The Fire Protection Association of Australia noted that, with respect to fire protection activities, an extensive suite of nationally endorsed competency standards has already been developed under the Australian Qualifications Framework, in conjunction with the Australian National Training Authority, that would support a nationally consistent licensing scheme (sub. DR70, p. 3).

Comments from other interested parties suggest a desire for *additional and more stringent qualification requirements*. The WA Government Department of Housing and Works commented that:

It is apparent Australia has access to a state-of-the-art technical building code through the BCA but the benefits are reduced due to the ad hoc skill levels of those who administer and enforce building standards. ... It is highly desirable to develop a

uniform process for the qualification and registration of all building practitioners — especially for dealing with performance solutions. (sub. 14, p. 8)

With respect to fire safety engineering, Arup Fire noted:

Fire safety engineering is a combination of fire science and building engineering and requires practitioners to understand a significant amount of detail and concepts ... Those approving solutions should also have the same level of training and experience as those practitioners carrying out designs.

... The lack of significant formal education for some practitioners and approving authorities leads to inconsistent designs and can also result in poor outcomes for the industry as a whole, with significant risks to the Australian community. (sub. 15, p. 3)

In order to obtain better building outcomes for blind or visually impaired people, Blind Citizens Australia recommended ‘disability awareness training form a greater part of building industry professions’ training and ongoing professional development’ (sub. 20, p. 7).

Other interested parties also highlighted the importance of enforcing skills requirements at regular intervals:

If qualifications, skills and knowledge of builders, fire authority officers and Building Surveyors were enforced, issues such as quality of building work, performance based assessment etc would be to a satisfactory standard. (Mr Grant Riches, sub. DR56, p. 2)

Similarly, the Australian Institute of Building maintains that ‘all site workers other than labourers should undergo accreditation as to expertise’ (sub. DR67, p. 3). The Institute noted it had formed a National Building Professionals Register, with the intention of providing an unbiased method of accreditation to building industry participants, and was participating in a working party charged with developing a model for accreditation in NSW (sub. DR67, p. 3).

Ongoing competency requirements can also serve an important purpose in licensing and accreditation arrangements, by ensuring practitioners keep up to date with the latest developments in their field and the latest amendments to the BCA. Some interested parties raised concerns that skills are not being maintained, for example:

There is no requirement in SA for licensed builders or registered works supervisors to maintain their skills and knowledge. This is probably one of the biggest concerns ... (Mr Grant Riches, sub. DR56, p. 2)

However, competency requirements appear to be becoming more common. For example, following on from the Campbell Report’s recommendations, NSW introduced new continuing professional development requirements for licensed builders and trade contractors/supervisors (see sub. 53, p. 2). These practitioners are required to accumulate 100 points (allocated according to courses completed) every

three years, with a minimum of 25 points to be earned each year. Practitioners are asked to certify that they have achieved the required points when they seek to renew their licences. The emphasis of the requirements is on developing knowledge of the BCA.

Audits

Auditing of a practitioner's performance is an essential part of ensuring ongoing competence and compliance with regulatory requirements. The Allen Consulting Group noted:

Without regular and often random auditing practitioners are more likely to cut corners. Regular verification of building work and certification is therefore integral to ensuring the quality and safety of building work. (2002, p. 16)

Audits can take place at both a technical and administrative level, checking a practitioner's technical competence and their handling of the required administration and paperwork.

Arup Fire supported a system of technical audits for practitioners, saying:

If practitioners, both private and public (fire engineers, building surveyors/certifiers, fire brigade personnel involved in design checking) were audited technically through an independent body on a regular basis (3 or 4 yearly) then issues on on-going education and knowledge of research and design changes would certainly be improved.

... The provision of a technical audit system would help to raise the standard of performance based design and also potentially improve overall consistency. (sub. 15, p. 4)

BCA Logic also supported a greater level of auditing of certifiers and suggested a four-pronged approach to auditing would help to address concerns about technical competence, documentation and approval of alternative solutions:

- Audit the technical components of Certifiers
- Audit the means of compliance with the BCA
- Audit the documentation process
- Audit the implementation and completion process where necessary. (sub. 55, pp. 7-8)

One model, used by Victoria in the plumbing area, is to undertake random audits of a certain percentage of practitioners each year. This could have wider application in the building industry.

Issues for certifiers

Certification may be undertaken by either local government certifiers or private certifiers. Private certification was introduced in the Northern Territory, Victoria and South Australia in 1993, in Queensland and New South Wales in 1998, in the ACT in 1999 and in Tasmania in early 2004 (sub. 4, p. 40). (An interim form of private certification was introduced in Tasmania in 1999 — see sub. DR83, p. 10.) Western Australia is currently reviewing its building legislation and will consider private certification in the context of that review.

The introduction of private certification as well as the performance-based Code has increased the focus on the skills and qualifications of certifiers. Certifiers bear a significant amount of responsibility for ensuring compliance with building regulations and good building outcomes, as they undertake approvals and inspections of buildings up to and during the construction phase (discussed in section 7.5 below). As pointed out by the Western Australian Department of Housing and Works, certifiers not only need technical expertise, but also expertise in regulatory principles and laws, as their tasks may encompass both compliance checking/certification and the issuance of permits for construction, occupation or use of a building (sub. DR90, p. 2).

The focus on the qualifications and competencies of certifiers will become even sharper as the role of the certifier expands along with any extension of coverage of the BCA. For example, as energy-efficiency standards are brought into the Code, so certifiers need to have some understanding of energy efficiency in order to be able to undertake their role (either assessing compliance themselves or contracting an appropriate specialist to help them make an assessment). The use of innovative performance-based solutions puts extra pressure on certifiers to be highly skilled and competent in their assessment tasks.

Currently most certifiers need to be registered, although requirements can differ between public and private certifiers. Registration usually involves meeting certain qualification requirements, and meeting ongoing competency requirements in some jurisdictions. Certifiers are most commonly building surveyors or engineers by training.

Audit requirements for certifiers also differ across jurisdictions. The ACT, for example, has an audit team to maintain ongoing checks on the performance of practitioners, with private certifiers being audited on a targeted basis, depending on their past performance and demonstrated competency. As part of its reform efforts stemming from the Campbell Report, NSW has recently introduced new powers to audit councils in their role as certifying authorities (sub. 53, p. 2).

Until recently, the differences across jurisdictions in registration requirements for certifiers were not considered material, due to the low number of cross-border practitioners and the operation of mutual recognition across jurisdictions (Allen Consulting Group 2002, pp. 8-9).

However, a number of concerns have emerged relating to the qualifications and registration processes for certifiers. First, the introduction of private certification has led to an increasing amount of cross-border certification activity, as certifiers may now build market share across jurisdictions, and some registration bodies are concerned that mutual recognition is leading to a lowering of standards for certifiers (Allen Consulting Group 2002, p. 9). Second, the qualifications required of private certifiers exceeds those required of council certifiers in some jurisdictions, leading to concerns of a disparity of ability and competence. (In response to concerns raised about this in the Campbell Report (2002, p. 55), NSW is working to align the requirements for public and private certifiers.)⁴ Third, there have been broad concerns about the overall competence of certifiers and the quality of service provided by them, with questions being raised about the skill levels and qualifications acquired by certifiers. The Commission received considerable complaints that some certifiers were not sufficiently qualified to assess performance-based solutions.

In response to these concerns, and to attempt to maintain the effectiveness of private certification, the ABCB recently introduced national competency standards and an accreditation framework for certifiers. The national competency standards complement earlier work on higher education benchmarks in respect of building surveying qualifications attained through university (ABCB 2003b). The 1999 Technical Review of the ABCB regarded the efforts of the ABCB to address the issue of national accreditation for surveyors as 'consistent with the IGA94 Objective 3' (Meacham et al 1999, p. 28).

The framework establishes two levels of certifiers, with level 1 certifiers requiring a degree qualification and being able to certify all classes and size of buildings, and level 2 certifiers requiring a diploma qualification and being able to certify buildings up to three storeys or with a maximum floor area of 2000m². Slightly different requirements are specified for certifiers employed by local government authorities.⁵ Existing practitioners move across to the new framework on a 'person follows function' basis, meaning that the current activities (rather than job titles) of practitioners will determine their level within the new framework.

⁴ See http://www.dipnr.nsw.gov.au/pdf/dp_councilcertification_fin4_forprint.pdf (accessed 12 July 2004).

⁵ See http://www.abcb.gov.au/documents/accreditation/accreditationframework_may01.pdf (accessed 17 May 2004).

The Australian Institute of Building Surveyors was involved in the drafting of the framework and, as of June 2004, require their practitioners to be accredited against this framework (sub. 4, p. 56). States and Territories have approved the competencies and the ABCB Chairman noted that the intention is for the overall framework to ‘form the basis of the accreditation/registration of building certifiers/surveyors in each State and Territory’ (sub. 4, p. 18). Some interested parties expressed frustration that the framework had not yet been picked up by jurisdictions, with some suggesting that many compliance issues would not now exist if the accreditation framework had been adopted and training commenced when agreement had first been reached (Mr Grant Riches, sub. DR56, p. 2). However, some interested parties expressed concern about ‘nationalising’ the qualification requirements for certifiers, saying the imposition of higher standards had the potential to reduce the number of certifiers entering the industry and add significantly to building costs in regional areas (Burdekin Shire Council, sub. DR95, p. 1).

The introduction of a national framework for certifiers has a similar flavour to recent reforms undertaken in New Zealand. In response to problems with the weather tightness of buildings, New Zealand has sought to strengthen its regulatory framework to increase the quality of inputs into the building process (sub. 5, p. 5). The new Building Act 2004 (NZ) will, among other things, require accreditation and auditing of building consent authorities (who issue building consents and undertake inspections).

However, some interested parties expressed concerns with the new Australian national framework. Engineers Australia considered that the framework lacks recognition of the range of professionals able to undertake certification work, suggesting there is a view by some that ‘only building surveyors have the necessary knowledge, skills and competencies to undertake building certification activities’ (sub. DR61, p. 3). It suggested the framework and the national competency standards needed to be inclusive of all competent occupations, noting that ‘there is a clear demonstration that engineers have the ability to successfully coordinate and facilitate the necessary range of skills required [for certification activities]’ (DR61, p. 4).

Some interested parties also felt that the detail of the Australian national framework could be further improved, by basing certifier levels on the type or complexity of the building, rather than the size of the building. Pitt and Sherry noted that many practitioners and industry bodies align themselves with classes of the BCA, in particular, residential classes versus commercial classes, and that this would appear a natural division of responsibility for building surveyors (sub. 37, p. 4). They further submitted:

Many assistant building surveyors [ABS] deal solely with domestic construction and are needlessly burdened with the task of additional training to approve class 2-9 buildings. The approval of a three-storey hospital that relies on an alternative fire safety solution may be an extremely complex task. ... the ABS will need to develop essentially all of the skills and competencies of an unlimited building surveyor, as the distinction between the two tasks is minor.

This is also seen as a significant and unnecessary impediment to the entry of assistant building surveyors into the profession. ... because they are forced to undertake highly technical training with limited application to their market sector. (sub. 37, p. 4)

It was also suggested that benefits would arise from introducing across jurisdictions more uniform auditing procedures for certifiers. The Allen Consulting Group noted that, while private certifiers are subject to audit procedures, many local government certifiers are not. It noted that this diversity 'places additional requirements and costs on private certifiers, in turn placing them at a competitive disadvantage over their public sector counterparts' (2002, pp. 16–17).

The way forward

Adequate competency levels for those involved in the building process are vital for the successful implementation of the BCA and performance-based solutions. Licensing, accreditation and audit processes are three key mechanisms by which minimum standards may be imposed and maintained.

The combination of the licensing, accreditation and audit processes in Australia is currently providing an important part of the foundation which determines whether building standards and their enforcement are effective and efficient. In some cases, the combination is not working, and this is undermining public and industry confidence in the building regulatory system. It appears that movement towards higher skill levels within a more harmonised licensing system is desired. Greater uniformity of minimum qualification, competency and audit requirements may give participants in the building market some degree of comfort that their work is being undertaken by appropriately skilled individuals. Greater uniformity of licensing systems could additionally allow the introduction of a linked database, which would assist in ongoing monitoring and audit functions.

However, there can be costs as well as benefits from more stringent licensing and accreditation arrangements. For example, licensing can create barriers to entry and can be inflexible to changing market conditions. It will be important to consider, when contemplating changes to the licensing regime, whether alternatives, such as more rigorous auditing arrangements or higher penalties for faulty work, could achieve the same health, safety and amenity outcomes.

Given New Zealand's recent reform experience, the requirement for the Trans-Tasman Building Regulatory Reform Council to promote consistency in the education, training and accreditation of industry professionals (sub. 4, p. 22), and the mutual recognition arrangements between the two countries, there may be benefits from including New Zealand in any discussions.

FINDING 7.2

The compliance system for building regulation could be improved by jurisdictions establishing more soundly based requirements for licensing, accreditation and audit of building practitioners, including building certifiers. The ABCB could provide a forum for this.

7.4 Insurance

Insurance requirements are another mechanism by which regulators can seek to promote good building outcomes, lessen the incidence of building faults and provide redress for consumers in the case of faults or non-completion. Insurance requirements for various building practitioners currently differ across the States and Territories, although Home Builders Warranty Insurance (HBWI) and professional indemnity insurance are two key insurance products generally required.

It is clear that there are issues in the building industry in some jurisdictions with regard to the cost and availability of insurance, the incentives current schemes provide for good building outcomes, and the level of consumer protection afforded by current arrangements. Further discussion of these issues is provided in appendix H. The question is whether the ABCB's future work program should encompass insurance issues.

The Tasmanian ABCB Board member, Mr Graeme Hunt, suggested the ABCB needs to play some role in insurance issues:

Insurance is a vital component of an holistic approach to building regulation where public risk has been transferred to private risk. Instead of governments underwriting the work of building practitioners as they may have tended to in the past (insurer of last resort) building control acts are now based on an expectation of competent and insured building practitioners. The ABCB needs to be a player in the insurance issues although licensing authorities have a closer role. (sub. DR83, p. 9)

The South Australian Government suggested that, to overcome cost and availability issues, there may be a role for the ABCB in brokering insurance for private certifiers:

... there is a distinct likelihood that the insurance issue will cause the number of practices to substantially decline to just a few large practices who are able to carry the

insurance premiums. This will result in reduced competition and a greater demand on councils.

There is scope for the ABCB to broker a common insurance portfolio for private certifiers on a national basis. To achieve this the State administrations may need to commit to a common set of risk management strategies such as auditing arrangements. (sub. 36, p. 20)

Another interested party suggested a role for the ABCB in formulating national requirements for professional indemnity insurance, so that insurers do not need to deal with several different sets of government requirements across Australia (Mr Lawrence Reddaway, sub. DR73, p. 9). The HIA also suggested there may be scope for the ABCB to work with jurisdictions to deliver ‘greater consistency in the application of mandated PI requirements and to assess their effectiveness’ (sub. DR85, p. 12).

However, other interested parties did not support the ABCB becoming involved in insurance issues. The Victorian Government commented that insurance was not part of the ABCB’s core business and it did not support an expansion of the ABCB’s involvement into consumer protection issues (sub. DR91, p. 2). Similarly, the HIA saw no role for the ABCB in HBWI, given recent regulatory action in this area (sub. DR85, p. 11).

The ABCB Chairman submitted that the ABCB’s role in insurance should be focused on practitioner competency:

The Board has in the past discussed its role in builder warranty insurance and concluded that this was a matter for the Administrations. However, the Board has a role to play in assisting building practitioners generally on their BCA awareness and to promote national competency standards for certifiers. This contribution to practitioner competence feeds into their insurability. (sub. DR75, p. 5)

Resolving insurance issues may require different actions in different jurisdictions, depending on the exact nature and severity of problems. For example, the 2003 *NSW Home Warranty Insurance Inquiry* (the Grellman report) recommended a range of enhancements to alleviate problems in the NSW market, including the creation of a scheme board and advisory council, greater regulatory oversight of insurer underwriting practices and a strengthened licensing process (pp. 75–76). In considering its recommendations, the report had particular regard for the governance, licensing and dispute resolution framework operating in the Queensland scheme, noting:

The Inquiry found that Queensland is realising the benefit of a stable scheme, that has been given time to mature and is underpinned by effective governance, licencing and dispute resolution. (2003, p. 51)

The Grellman report suggested that, ultimately, HBWI should be underpinned by a system where consumers are the purchasers of insurance (2004, p. 2). The report floated an option where consumers would purchase compulsory cover, with an option of topping up to a higher level of cover, with premiums based on contract value and the builder's licence characteristics (2004, p. 59). (Allan (2002, p. 31) believed upgrading builders' licensing requirements to include financial criteria would increase the accessibility of insurance and the sustainability of the home builders' warranty insurance market, thus providing greater consumer protection.)

With respect to scheme design, the Queensland Building Services Authority considered that the objectives of insurance (to reduce faults, improve building outcomes and provide consumer redress) are more effectively achieved under the Queensland HBWI scheme than under 'last resort' schemes (see box 7.3) (Building Services Authority, pers. comm., 5 October 2004). It considered that problems with cost and availability of insurance are reduced, as the scheme essentially guarantees insurance to any licensed contractor and there is a single premium structure that applies to all insurable construction (Building Services Authority, pers. comm., 5 October 2004). The Australian Consumers' Association (2004a) also advocated a move towards the type of HBWI scheme already operating in Queensland, comprising lower premiums, more comprehensive insurance and higher levels of protection for consumers.

Other action to improve the insurance situation might include informing consumers, for example through required information in building contracts, of the relevant risks and insurance options available. Of course, consumer information can also be provided through other non-regulatory means, such as private industry awards (or media exposure), aimed at informing the consumer by highlighting high quality builders (and low quality builders through dispute registers or other means). Other mechanisms for the consumer to gain information and influence behaviours include through the building contract or by privately commissioning their own building inspections.

Box 7.3 Home builders' warranty insurance in Queensland

HBWI in Queensland is administered by the Building Services Authority (BSA). The BSA regulates the building industry and, in addition to warranty insurance, has overall responsibility for licensing and dispute management. Builders fulfilling the licensing requirements of the BSA automatically qualify for insurance cover with the BSA and, while builders need to provide proof of their financial capacity to trade, they do not need to provide a financial guarantee or pledge assets.

The cost of insurance premiums in Queensland is currently set out in the *Queensland Building Services Authority Regulation 2003*. Any proposed premium increases are subject to regulatory impact requirements and scrutiny by an industry board. Premiums are currently capped at \$1280.

To access cover under the scheme, the consumer need only have contracted with a person holding the appropriate licence (or holding themselves out as having such a licence). The scheme also provides 'no-fault' cover in the event of defective work, where the defects cannot be attributed to a particular contractor.

Source: Australian Consumers' Association 2004b; Building Services Authority, pers. comm., 5 October 2004.

Importantly, any action to reform insurance requirements must take into account recent changes and reforms in the insurance sector. For example, in response to the removal of HBWI requirements for buildings above three storeys, Insurance Australia Group entered the HBWI market in NSW and Victoria and the incumbent, Vero, announced it would cut premiums by up to 15 per cent (Murray 2004). Insurance Australia Group subsidiary CGU has recently extended its home warranty coverage from NSW and Victoria to South Australia and Western Australia (Harley 2004c). New niche products have also emerged, such as the warranty scheme offered by Building Ethics Australia that requires builders to submit to risk management techniques and financial scrutiny, including a system of inspections and defect rectification that goes beyond that required by Victorian planning laws and locally administered building regulations (Elias 2004).

Changes in State regulation have also occurred. For example, in response to the Grellman report, NSW recently introduced mandatory market practice guidelines for home warranty insurers. These include requirements for insurers to provide, in writing, reasons for refusing insurance, reducing a builder's level of cover, or requesting indemnities, guarantees or undertakings (Harley 2004a).

There have also been wider insurance reforms resulting from collaboration between Commonwealth, State and Territory Ministers. Jurisdictions agreed to introduce:

- Proportionate liability for claims of economic loss or property damage. This replaces joint and several liability and means that professionals will no longer be

liable for the full amount of a loss where they have only made a small contribution to the total loss. This reform has been legislated in NSW, Victoria, Queensland, Tasmania and Western Australia, and by the Australian Government.

- Professional standards legislation. This aims to assist in delivering certainty to insurers, protection to consumers and affordable, available insurance to professionals, by allowing professionals to limit their liability in exchange for risk management, compulsory insurance and other consumer protection initiatives (such as professional education and disciplinary mechanisms). These reforms have been legislated in NSW, Victoria and Western Australia, as well as by the Australian Government. (Australian Government Treasury 2004, pp. 10, 63, 98, 99).

However, the Western Australian Department of Housing and Works commented that the increased cost of recovery against multiple defendants and the likelihood of liability caps limiting recovery resulting from these changes will force insurance premiums to rise and limit the ability of consumers to rely on insurance for restitution of economic loss. The Department suggested jurisdictions are now more likely to need effective training and registration schemes to maintain appropriate practitioner standards and protect consumers (sub. DR90, p. 6).

Additionally, the Australian Procurement and Construction Council has developed a set of guidelines for the assessment of professional indemnity insurance requirements in building contracts (sub. 41, part 2, p. 16). This may lead to greater clarity and consistency in insurance requirements across jurisdictions.

Actions to change insurance requirements must also take into account the interlinkages between the various compliance mechanisms operating in the building regulatory framework. Allan (2002) believed that problems in the HBWI market could be alleviated by achieving a better building process, with better built homes, better home builders and better dispute resolution leading to fewer insurance claims and a more sustainable and accessible insurance market (p. 30). Allan identified the requirements needing to be addressed as:

- Controlling builder risk by improving builder registration, business capitalisation, technical skills and managerial competence as well as consumer knowledge of builders' performance;
- Reducing construction risk by improving building standards, contracts, specifications, approvals, practices and inspections; and
- Solving building disputes by improving complaints handling, defects assessments, mediation and arbitration so as to avoid prolonged and costly litigation. (Allan 2002, p. 31)

The interdependencies across the regulatory system for building mean that improvements in one area flow across to other areas. In this case, improvements to compliance mechanisms (such as strengthened inspection regimes) generally may have positive impacts on insurance in the building sector.

FINDING 7.3

There would be benefits from jurisdictions sharing information and ideas on best practice in the regulation of insurance to formulate and implement more efficient and effective insurance regimes for the building industry.

7.5 Building approvals, inspections and occupancy approvals

Building approvals, inspections and occupancy approvals are the key regulatory processes involved in the erection of a building. These processes are the prime means by which jurisdictions attempt to ensure that the BCA is complied with and that the required health, safety and amenity outcomes are achieved.

Building approvals are referred to differently in different States and Territories — approvals, permits and construction certificates are all examples of the terminology used. However, it essentially is the process by which approval is given for building work to commence. This usually entails a check that the construction plans and specifications are consistent with the BCA and any planning/development consents.

Inspections during the building process aim to ensure defects are caught while they are still visible, for example, a concrete foundation check before any further building activity takes place. Jurisdictions differ in the required number and timing of inspections during the building process.

Once the building is completed, some jurisdictions require an occupancy approval to be issued before occupants may move in. This generally entails a final check of compliance with the BCA and planning approval requirements.

These tasks are undertaken by private or local council certifiers. States and Territories differ in the range of areas in which private certifiers are empowered to act, for example, in some jurisdictions a private certifier may check compliance with development approval, but the local government will issue the building approval, while in other jurisdictions the private certifier may be able to both check compliance and issue building approvals.

Process issues

For building practitioners and consumers, it is important to have clarity regarding the processes required to get construction underway and a building completed. A number of concerns have been expressed about the differences across jurisdictions relating to the building approval and inspection processes. A lack of uniformity or transparency in these processes can lead to confusion, delays, increased costs and potentially poor compliance with regulations.

First, the Allen Consulting Group drew attention to the variety of approaches to private certification across jurisdictions, in terms of the activities private certifiers may undertake. Pointing to cases of large time delays for permit issuance by councils, it commented ‘there is sufficient evidence to indicate that significant benefits could be realised from a more uniform approach to building certification’ (Allen Consulting Group 2002, p. 11). The 1999 Technical Review of the ABCB noted that, while the introduction of private certification was driven by similar interests in each jurisdiction, the form it took varied across jurisdictions:

These systems have evolved based upon the recognised need to streamline the building approval process and thus become more competitively positioned within an economy where the construction activity contributes substantially to the bottom line return to the State or Territory. The private certification systems that are now in place are those that have been developed solely based upon the needs and constraints of the individual States and Territories. As expected, these systems while sharing some commonality, differ both in scope and detail. (Meacham et al 1999, p. 27)

Engineers Australia suggested that the ABCB should develop a truly national private certification scheme. Engineers Australia expressed concern about the differing approaches to private certification in each jurisdiction, noting:

... it would be highly desirable for each State and Territory to take a similar approach on this issue. The various private certification regimes in each State and Territory create difficulties for practitioners and developers alike. The development of a national private certification system is something that is needed, and should be part of the role of the Board to develop. (sub. DR61, p. 3)

Second, the Allen Consulting Group commented on the variety in approval timeframes across jurisdictions, noting that in some instances minimum timeframes are not specified and may be extended without the applicant’s approval. It suggested a national administrative framework ‘may be a mechanism by which best practice arrangements may be put into place nationally, with consequent pressure to reduce unnecessary delays’ (2002, p. 13).

Third, in noting that jurisdictions differ in their requirements for inspections the HIA commented:

The basis of this difference can be political, however it should relate to the complexity of the specific project and the best judge of the scope of an inspection regime should be the person who will be responsible for signing off the completed construction. (sub. 6, p. 39)

The Allen Consulting Group supported a harmonised mandatory inspection regime, stating that inspections are not only essential to the enforcement of the BCA, but also:

- provide reassurance to the community that governments take their commitments to building and fire safety standards seriously;
- assist in educating builders on proper construction practices and proper fire safety practices; and
- help protect consumers against unscrupulous builders and building practices. (2002, p. 13)

Notably, NSW has recently introduced legislative reforms under its Environmental Planning and Assessment Act to require mandatory critical stage inspections for each class of building (sub. 53, p. 2).

In contrast, however, the HIA noted that self-regulation by large volume builders, in the form of comprehensive internal inspection and compliance checking regimes, works well and may even be more comprehensive than regulated regimes (sub. 6, p. 39). The Master Builders Association of Western Australia (MBAWA) also referred to ‘an alternative model of self-regulation as a control mechanism on the industry’ (sub. 8, p. 2).

MBA also cautioned that, while inspections are imperative at key intervals throughout the building project, to verify compliance at stages of critical structural adequacy:

It is not the responsibility of the certifier or the building inspector to ensure that quality control has been completed to meet all standards and Building Code requirements throughout the entire project. It is unrealistic to expect every element of the construction phase to be inspected. To achieve this, a building surveyor/inspector would be required to be on-site all day every day. This would be cost-prohibitive nor would there be resources available to achieve this. (sub. 24, p. 12)

It noted that the legal system (in civil liability cases) appears to be seeking total compliance at all stages of a project, which impacts on the costs and availability of professional indemnity insurance (sub. 24, p. 12).

Fourth, the lack of consistency with respect to the requirements for the protection of adjoining property during construction was also noted, including the varying

requirements to pay compensation and costs, undertake dilapidation surveys and hold appropriate insurances (Allen Consulting Group 2002, p. 14).

Approval processes for alternative solutions

The approval of alternative solutions raises particular issues with respect to the approval and inspection processes. Interested parties raised concerns that there is no set process for the preparation or assessment of alternative solutions and that, because of a lack of documentation, critical fire safety and maintenance measures associated with alternative solutions may not be undertaken. (See chapter 5 for a general discussion of alternative solutions and performance-based standards). These issues were also raised in the NSW Campbell Report, with a submission to that inquiry noting:

- there is no recognised methodology for the assessment design or approval of alternative solutions;
- it is up to the accredited certifier to determine how much information and documentation must be provided for each alternative solution therefore there is huge variance in the way alternative solutions are dealt with. (Campbell 2002, p. 78)

To resolve such issues, the Western Australian Government Department of Housing and Works suggested that it may be vital to implement ‘a nationally consistent framework that deals with the complexities of performance standards in a regime of proportionate liability and capped professional liability’ (sub. 14, p. 6). As part of this, the Department submitted that there needs to be a more rigorous and standardised process for the approval of alternative solutions, to avoid unnecessary delays at the building licence stage or a challenge to a solution during the construction phase. The Department suggested:

- Developing an administrative process to specify how a BCA alternative solution is to be managed describing what form of application documentation is required and how to successfully argue for a proposal to be approved by a regulatory authority. ...
- Greater control of the application, review and approval timeframes associated with BCA alternative solutions.

... an administrative requirement stipulating that all alternative solutions be identified when an application is lodged with a licence issuing authority and a requirement that the licence issuing authority be made fully aware of the proposal and it has approved it. (sub. 14, p. 6)

The Department also advocated national consistency in the methods used to assess compliance with a performance standard (sub. DR90, p. 5).

Other interested parties suggested similar action to clarify processes for approving alternative solutions, for example, BCA Logic stated:

A procedural document should be prescribed for the preparation and assessment of alternative solutions. ... [and] require alternative solutions to include a quality manual, implementation procedures, and items to be included on the Fire Safety Schedule. (sub. 55, p. 8)

Industry members from the New South Wales Building Regulations Advisory Council supported a national approach, saying:

... a more rigorous national approach to the development, assessment and certification of alternative solutions needs to be introduced to prevent any abuse of this system and ensure that alternative solutions are delivering appropriate outcomes. (sub. 25, p. 1)

More generally, Mr Graeme Hunt suggested the development by the ABCB of a ‘General Performance Assessment Methodology’ to give guidance to designers and surveyors would be useful:

The “International Fire Engineering Guidelines” deliver the sorts of outcomes needed for more general performance assessment – guidance, process, traceability, documentation etc. (sub. DR83, p. 4)

Beyond the construction and approval phase, the ICA highlighted the importance of being able to identify performance-based solutions within buildings when calculating premiums for fire insurance:

... Insurers regularly inspect industrial premises, sometimes to provide cover to the owners and sometimes to provide cover to the tenants. In attempting to determine an appropriate premium rate, it is essential for insurers to have an understanding of the design criteria for the building construction. Risk engineers who perform these inspections are familiar with the DTS provisions of the BCA, and any noted departures from these provisions may result in a higher premium than may be justified if it was known that an appropriate performance-based solution had been used.

One suggestion made to ICA is that relevant information about performance-based solutions should be permanently displayed in the building entry lobby. (sub. 38, p. 11)

As well as contributing to better building outcomes, greater clarity and structure around the approval processes for alternative solutions may assist in speeding up approvals. It may also reduce duplication, such as that described by BCA Logic:

A common scenario is that buildings with AS [alternative solutions] approved by private Certifiers may need secondary approvals by the Local Council. ...

There is clear evidence that Councils are revisiting AS ... and have also served Orders as a result of the application for a Secondary Approval.

This clearly outlines that there are concerns by Councils, and on the other hand, little protection for Accredited Certifiers who do approve AS in good faith. (sub. 55, p. 5)

Some interested parties also noted a reluctance to approve alternative solutions, due to a fear of liability. In fact, BPIC noted that some professional indemnity policies

have exclusion clauses prohibiting the insured permit authority from determining an alternative solution (sub. 23, p. 32). Working within a recognised process may help to alleviate these problems.

Increasing scrutiny of alternative solutions was also raised as an important part of the approvals process. The Campbell Report identified two options — a system of independent peer review or the establishment of a Government panel of experts (2002, p. 83). The report favoured the panel approach, recommending that the panel should: determine standard methodologies for verification of alternative solutions; assess any alternative solutions referred to it by councils; examine all fire engineered alternative solutions; and collate information about alternative solution designs to help develop a body of knowledge and precedents (2002, p. 84).

However, the Australian Institute of Building Surveyors (NSW) suggested a model of peer review, similar to that used by the Olympic Coordination Authority (OCA) for the Sydney 2000 Olympic Games, would provide a robust, timely and honest system of assessment. The OCA independently appointed peer reviewers for all alternative solutions and incorporated information from the reviewers as well as its own technical staff and fire authorities in making approval decisions (AIBS NSW 2003, p. 4). BCA Logic also supported independent peer review, suggesting this could be undertaken in NSW through the recently formed Building Professionals Board, under a user pays framework (sub. 55, pp. 9–10).

Any new system for the approval and review of alternative solutions may need to specify the role of the fire authorities, as fire engineering appears to be the area in which alternative solutions are most used. Fire brigades may be referenced in State and Territory legislation as a body required to give approval for certain facets of building design or construction (see chapter 6). The Fire Protection Association of Australia recommended the development of a national administrative framework that could ‘regulate the involvement of the fire services throughout the construction and the building-in-use cycle’ (sub. 19, p. 14). The industry members from the New South Wales Building Regulations Advisory Council also highlighted ‘the need to provide a nationally consistent approval process that involves the Fire Brigade’ (sub. 25, p. 2).

However, Pitt and Sherry cautioned that an expanded role for fire authorities could reduce clarity about responsibility for approval processes:

An aim should be to ensure that there is a single chain of command that ensures that a transparent and accountable process is achieved. Having two approval authorities dealing with a single application has the potential for internal conflict, particularly where both elements have on site supervision functions. (sub. 37, p. 4)

Pitt and Sherry suggested clear identification of a single approval body was essential. They also suggested care is needed to avoid a situation where fire authorities undermine the benefits of private certification, through a lack of responsiveness and stymieing of development (sub. 37, p. 3).

Role of the certifier

The role of the certifier from the building approval stage onwards is crucial in ensuring that buildings are BCA compliant. Depending on the particular legislative and contractual arrangements, it may be that the point at which the certifier enters the process is the first time responsibility for explicit consideration of the BCA is made clear. For example, at the time of writing the Campbell Report, in NSW there was:

... no assignment of responsibility for Building Code compliance to a building designer or architect with respect to the original design. ...

Councils in their role as consent authority for the development application ... have a statutory obligation to check Building Code compliance of the design. However, in reality the DA only contains the envelope description of the building ... Effectively, Building Code compliance is not enforced at this time. (2002, p. 70)

The South Australian Government also noted the pressures on certifiers:

... there appears to be insufficient effort to place some responsibility for compliance with designers and contractors. This often has the result that designers prepare inadequate project documentation and fail to address Code requirements during design. There is often an over reliance on the certifier to detect compliance issues and to suggest ways of addressing them. This is a very inefficient process and the system needs to place greater onus on designers for the quality and level of compliance designed into projects. (sub. 36, p. 17)

The regular checking of building progress by certifiers via inspections is also important, to ensure builders and other site workers have complied with the relevant sections of the Code.

As noted earlier, certification activities may be undertaken by private or council certifiers. A number of interested parties pointed to benefits from private certification in the area of approvals and inspections. The HIA noted that benefits primarily result from time savings (sub. 6, p. 41). The Fire Protection Association of Australia also saw benefits in terms of efficiency and timelines and said it 'provided a broader, more technically competent resource in Australia in relation to certification' (sub. 19, p. 8). The Property Council of Australia expressed strong support for private certification, saying it had resulted in streamlining of the process of obtaining building approvals and inspections and had led to increased

efficiencies. Based on this, the Council suggested private certification be extended to the planning approval process (sub. 52, p. 32). Participants in the Commission's survey of building surveyors also identified benefits associated with private certification (see box 7.4).

However, other interested parties raised concerns about private certification. The MBAWA commented 'the concept of private certification to enable private sector building certifiers to issue building approvals and ensure Code compliance is not supported at this stage by our Association' (sub. 8, p. 2). The South Australian Government said the system had caused 'a notable fragmentation of the building assessment system and inherent difficulties in ensuring adequate accountability and transparency of such decision-making' (sub. 36, p. 19). The Queensland Government also noted issues with the cost to the State Government of administering the licensing, auditing, complaint investigation and disciplinary system for certifiers, and with ensuring consumers are adequately protected from faulty work (sub. 41, part 2, p. 17). Several interested parties also pointed to problems with the independence of private certifiers. And some suggested that competition between private and council certifiers was impacting on the cohesiveness of the building approvals system (see, for example, Municipal Association of Victoria, sub. DR71, p. 4).

Given the importance of the role of the certifier, it is vital that they perform their duties competently. Some of the issues raised with respect to private certification highlight concerns about the adequacy of the current approval and inspection regime. There are some concerns that where building certifiers have not performed their tasks adequately, poor building outcomes have resulted. For example, recently in NSW:

... tales of woe have continued: building certificates issued without as much as a site visit; unaccredited certifiers busy signing certificates, and even whole floors constructed above and beyond local council approval. (Perinotto 2003)

The Campbell Report also noted that poor quality buildings were resulting from the certification of buildings in NSW (by both council and private certifiers) that failed to meet Building Codes and from principal certifiers not properly performing their functions (2002, p. 13). It has even been suggested that, due to the history of problems in NSW, some people have lost faith in the system and are bringing in independent experts to assess compliance.

Poor quality certification by private and council certifiers puts at risk the achievement of fundamental health, safety and amenity outcomes for which the Code exists. And it adds extra costs to the building process, while undermining faith in governments' regulatory systems.

Box 7.4 Views on private certification

As part of the Commission's survey of building surveyors (see appendix F), participants' views were sought on the effects of private certification. Respondents commented on a range of benefits and adverse outcomes, with some divergence in opinions between privately employed surveyors and council surveyors.

A large proportion of respondents agreed that the introduction of private certification had:

- saved time in gaining project approval (83 per cent agreement)
- improved dialogue between industry/regulators (78 per cent)
- encouraged cultural change in the industry (78 per cent)
- allowed cost savings (76 per cent)
- encouraged parts of the industry to upskill (71 per cent).

Forty per cent of respondents said that time saved in gaining project approval was the most significant benefit stemming from private certification.

Half of all respondents thought that private certification had resulted in more scrutiny of building plans, with commonly cited reasons including greater professionalism on the part of private certifiers and high levels of accountability and associated liability for private certifiers.

However, some adverse effects of private certification were identified. The most commonly cited problem was ensuring private certifiers maintained acceptable quality standards, with concerns raised about lax regulatory controls, poor competency levels and conflicts of interest. Some respondents also suggested the relationship between local government and private certifiers was dysfunctional, while others noted the difficulties for certifiers to keep up with increasingly complex building regulation.

Council surveyors, as a group, were less sanguine about the benefits of private certification. Forty per cent of council surveyors were of the view that private certification had had a positive impact on industry performance, compared with 76 per cent of all respondents. Council surveyors also tended to disagree more with statements that private certification encouraged the use of new technology, led to new and cheaper building solutions and led to innovation in the planning and building stages of a project. Had there been a larger number of council surveyors in the Commission's survey, it is likely that the overall response would have been less positive towards the introduction of private certification.

Source: PC Building Survey 2004.

The ABCB Chairman noted that many jurisdictions have undertaken or are undertaking reviews of certification (sub. 4, p. 56). In NSW, changes to the audit system have been implemented, as the failure to set up an audit system at the introduction of private certification was found to be a significant contributing factor

to the problems with the new system (ABCB 2003c, p. 2). Auditing was also identified by South Australia as an area to refine.

As discussed earlier in the chapter, some moves have been made to improve the accreditation processes and required educational qualifications of certifiers, to raise the competency levels of those working in the industry. This section looks more closely at conflict of interest and process issues, to explore further possibilities for compliance improvements.

Conflict of interest

Depending on their relationship with the builder and with the designers of a building, certifiers can potentially be pulled in different directions. For example, Arup Fire raised some concerns with the independence of practitioners who undertake both performance-based design and approval tasks. It noted:

Specific areas relate to private building surveyors carrying out fire safety engineering design (often using “expert judgement”) and then approving these designs “in house” or through the same staff working under the umbrella of two differing companies.

The requirements for independence between those carrying out a design and approving the design are presently not clear in many States, with practitioners having to make an ethical choice ... Clarification and set guidance would be beneficial to all practitioners. (sub. 15, p. 4)

In noting that private certifiers are acting on behalf of the community when they approve designs or levels of fire safety, the Fire Protection Association of Australia commented:

This can represent a challenge in some situations where the private certifiers are being paid by the project developer and expected to assist in development of the most cost effective solutions as part of the design process, and then approving the same design. (sub. 19, p. 8)

Other interested parties noted the potential for difficulties where certifiers frequently work with the same building companies, such as can occur in smaller or more remote areas. In a report for the Ministerial Council on Consumer Affairs, on insurance and consumer protection, Allan (2002) noted:

Private surveyors ... sometimes depend too heavily on a few large builders for most of their income. This may compromise their independence and objectivity. It certainly undermines consumer confidence in their professional judgements. (p. 33)

The Municipal Association of Victoria considered that the lack of independence between the private building surveyor and the client is at the heart of compliance problems (sub. DR71, p. 9). It suggested that detailed analysis of the impact of privatisation of certification processes in each jurisdiction should be undertaken and

consideration given to whether greater independence of private building surveyors should be required:

Examples to promote greater independence may include mandating the owner to make the application, or requiring disclosure of the relationship between builders and building surveyors. (sub. DR71, p. 4)

To start to combat these problems, a number of jurisdictions have guidelines or rules about the conduct of certifiers. For example, ACT advisory material states:

A certifier must also be independent. They must not have any direct or indirect financial, legal or equitable interest in the work or have any relationship whether personal, professional, commercial or financial, with you or your builder. A certifier must also not be involved in the design or construction of the work being done. (ACTPLA 2003, p. 8)

NSW has recently introduced amendments to its building legislation, tightening up rules around certification. Under these amendments, a builder will not be able to appoint a certifier unless he/she is also the landowner. The amendments also establish penalties for offering or accepting a bribe, with respect to certification functions.⁶

Greater use of guideline material was advocated by interested parties. BCA Logic suggested conflict of interest concerns could be mitigated if jurisdictions would:

- Provide clearer definition of conflicts of interest.
- Provide common scenarios that are acceptable, and scenarios that are not acceptable, in a new clause such as an “Excluded Activities” clause.
- Provide more practice notes and guidance.
- Provide education for builders, developers, project managers, architects and the like on the role of the PCA [Principal Certifying Authority], and their public obligations. (sub. 55, p. 8)

Robust auditing procedures, as discussed in section 7.3, would provide support to a system based on guideline material. The Australasian Fire Authorities Council suggested that ‘a vigorous approach to auditing private certifiers and the establishment of an accessible and well-promoted complaints system’ would also help to reduce problems with conflict of interest or improper conduct of certifiers (sub. 28, p. 23).

However, some parties support a higher level of intervention. The Australian Institute of Building Surveyors (NSW) suggested in a submission to the ABCB that

⁶ See Department of Infrastructure, Planning and Natural Resources 2003, Q&A on development assessment and certification, http://www.planning.nsw.gov.au/planningsystem/pdf/QOCQ&A_final231203.pdf (accessed 18 May 2004).

developers should approach the building regulator to seek the appointment of a certifier:

The regulator would then liaise with the developer to identify assessors that the developer considers that his business has had no recent involvement with ... the developer would have to complete a statutory declaration to the effect that he and any subsidiary companies have no current involvement with the private certifier ...

The regulator would then seek a fee proposal from the assessor/s — the assessor/s would have to complete a statutory declaration to verify no conflict of interest to their knowledge.

The regulator would then appoint the assessor ... (2003, p. 7)

In a similar vein, a system of random selection of a certifier from a pool of accredited certifiers could help to avoid situations where a ‘compliant certifier’ is hired. However, the anti-competitive aspects of such a system, in terms of reducing the incentive for certifiers to operate an efficient service, would need to be considered.

Alternatively, the South Australian Government suggested returning certification duties to councils (with stringent statutory performance criteria in terms of timeliness), or allowing private certifiers to only undertake ‘structural certification’ (where competition for certification work would be based on the less subjective assessment of structural adequacy) may be worthy of consideration (sub. 36, pp. 19-20). The PCA, however, commented that returning building certification solely to councils would be ‘a retrograde step that will reduce efficiency without guaranteeing better outcomes’ (sub. DR93, p. 13).

Adequacy of processes

There are a number of ways in which compliance with the BCA can be assessed. Apart from situations where the certifier inspects and certifies the work themselves, options include self certification (where the building practitioner verifies their own work, such as a concreter assessing the compliance of the slab they have laid) and third party assessments (where a specialist assesses a particular part of the building, such as a consulting engineer checking a retaining wall).

Some criticisms of self certification have emerged. Allan (2002, p. 33) felt that some certifiers ‘rely too heavily on self compliance certificates and do not inspect each stage of work themselves’. For self certification to result in good building outcomes, the practitioners involved need to be competent in their profession and face incentives to act with integrity.

The ICA also raised concerns that compliance checking has been ineffective due to certifiers signing off on plans, rather than actual site conditions, and checking the process around alternative solutions rather than the underlying design theory (sub. 38, p. 13).

The HIA pointed to a trend for approval authorities to require independent assessments to demonstrate compliance with the BCA, saying ‘the practice is becoming more common as a means of risk sharing in the event of litigation’ (sub. 6, p. 28). It also suggested increasing use of third party assessments may be due to a lack of accredited certifiers able to undertake approval or inspection work. With respect to the recent introduction of mandatory inspections in NSW, the HIA noted that ‘it was subsequently realised that there will not be a sufficient number of accredited certifiers to undertake the scope of required inspections’ (sub. 6, p. 28).

Third party assessments may become an increasing part of the certification process. With the growing number of issues covered by the BCA, and the rising use of alternative solutions, the role of the certifier may move towards almost a project manager role, organising and collating the assessments of a number of experts to form a view on compliance. Assessment of alternative solutions requires a significantly higher level of skill than that required for deemed-to-satisfy standards, which can essentially be assessed against a list of prescriptive requirements in a ‘tick and flick’ manner. The Western Australian Government Department of Housing and Works noted:

Performance standards mean the designer must have a strong understanding of the principles underlying the standard, and in effect restrict design to professionally trained people ... Equally, checking the validity of a design against a performance standard requires the same sort of professional knowledge as the designer needs. For a complex building it is inconceivable that a single person or a single profession is capable of checking all aspects of a building against all performance standards. (sub. 14, pp. 5-6)

In making use of self certification and third party assessment, certifiers must ensure that the practitioners whose opinions they are relying on are competent and able to undertake their roles in a professional manner. Some of the complaints about certifiers may be due to their reliance on other practitioners, who have not adequately assessed compliance against the Code. In their submission to the Campbell Inquiry, NATSPEC noted the potential for issues to ‘slip between the two sets of certification’ when certifiers rely on other practitioners to certify specialised areas such as mechanical, electrical or plumbing services (NATSPEC 2002, p. 4). Robust systems of information sharing, inspections and auditing are vital to support the use of self certification and third party assessment.

The process of certification may also be assisted by clearer allocation of responsibility for compliance with the BCA by other practitioners in the building process. For example:

A requirement on building designers to have quality assurance checks prior to submitting documents to a certifier would ensure greater risk management analysis at the design stage ... If such quality checks were mandatory the risk associated with compliance would be spread more equitably between designers and certifiers. (South Australian Government, sub. 36, p. 18)

It is important that each participant in the building process is clear about their role and responsibilities in ensuring the building is compliant with the BCA and other regulatory requirements.

The way forward

The essential role of approval, inspection and certification processes is to ensure compliance with building regulations and assign accountability for achieving building outcomes. This section has highlighted some of the difficulties and hurdles currently being experienced, due to such factors as jurisdictional differences, the use of performance-based regulations and the operation of private certification.

Any changes to the processes must generate a net benefit and provide greater faith in the system. They must also be accompanied by appropriate enforcement and dispute resolution procedures — as noted by the Brisbane City Council ‘[l]aws alone have no deterrent value if it is known in the industry that there is little prospect of being caught and penalised’ (sub. DR72, attachment 1, p. 1).

FINDING 7.4

Improvements to the systems of approval, inspection and certification of buildings should be pursued. Jurisdictions would benefit from sharing information and best practices, particularly in such areas as: systems for the approval of alternative solutions; independence of private certifiers; and the use of self certification and third party certification. The ABCB could provide a forum for this.

7.6 Enforcement and dispute resolution

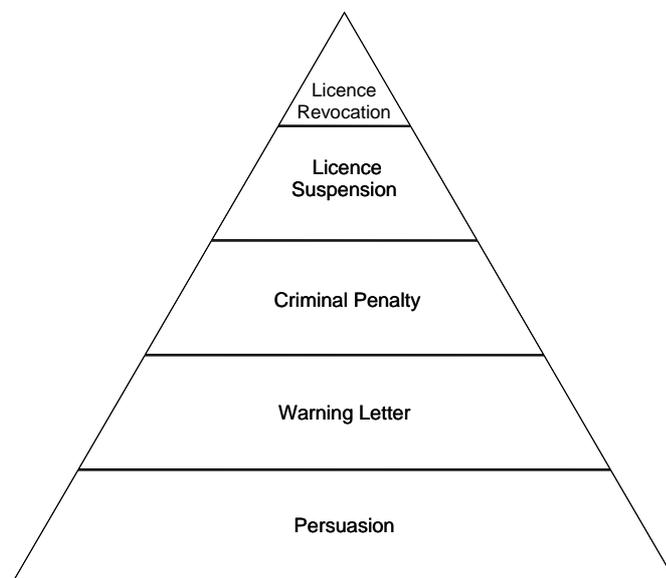
Enforcement

Enforcement mechanisms provide the ‘sticks’ to promote compliance with health, safety and amenity requirements of the BCA. While inspections determine the

probability of non-compliance being discovered, enforcement is the consequence of that non-compliance.

Building regulations are enforced at both the Local Government and State or Territory levels. When inspections find instances of non-compliance with building regulations, Local Governments have a variety of enforcement tools at their disposal. These include: orders to do, or halt, particular work; warnings; and fines, among other things. These tools can be used to create lower or higher penalties for non-compliance, and can be used in a graduated fashion over time. An example of this is shown in figure 7.1. State and Territory Governments' enforcement roles primarily are derived from their registration and licensing powers.

Figure 7.1 An example of an enforcement pyramid



Source: Ayres & Braithwaite 1992.

Depending on the system of private certification adopted by jurisdictions, private certifiers may also undertake enforcement activities. For instance, in the ACT, private certifiers may issue stop work notices for building work on which they are the certifier. In other jurisdictions, the enforcement of building regulations reverts back to local councils in the area.

Assessing breaches and how they may be rectified or penalised can require significant resources and expertise, with the interaction between local government enforcement and private certification sometimes introducing further complexities. According to the Municipal Association of Victoria:

... Councils frequently receive complaints from members of the public regarding building work that is being or has been carried out, for which a private building surveyor has been appointed. ... The handling of these complaints can sometimes represent a significant expenditure of Council resources. (sub. DR71, pp. 3-4)

Similarly, the Brisbane City Council noted that:

A number of local governments, including Brisbane, are now faced with buildings illegally constructed over sewers because private certifiers have ignored the requirement not to decide the application until other approvals had been obtained. ...

Further, when this has occurred, neither the local authority nor the landowner are responsible for the resultant illegal structure, but they are the ones left to deal with it. (sub. DR72, attachment 1, p. 2)

Enforcement bodies have different capacities and resources to deal with non-compliance. In order to manage the workload associated with compliance issues, the Victorian Municipal Building Surveyors Group developed a 'Filter Criteria', whereby complaints are fed through a risk assessment matrix:

The Filter Criteria recognises that Council has obligations to the public with regard to dangerous situations, which it can remedy or cause to be remedied. ... This is regardless of whether a private building surveyor is or has been appointed. In those circumstances the Filter Criteria recommends Council staff taking action to manage or remove the danger.

The Filter Criteria also recognises that not all complaints received at Council relate to dangers and many relate to matters stemming from administrative neglect or error by private building surveyors. In those circumstances the Filter Criteria recommends that the matter be referred to the private building surveyor for remedial action failing which the matter be referred to the Building Commission or Building Practitioners Board (or both) as appropriate. (sub. DR71, p. 4)

Additionally, the expertise required to effectively enforce building regulation is not solely technical:

... if a building control organisation decides to go down the path of enforcing its legislation... then it is more efficient to provide technical support to trained

investigators than to try and train technical experts in the skill of investigation. A technical expert can easily identify a technical breach however linking that breach to the legislation and preparing the case for presentation at a court or other formal hearing in a legally admissible form is not so simple. Simply knowing that a building professional has done something wrong is not good enough. (King 2002, p. 3)

These considerations may form the basis for differences in enforcement approaches across jurisdictions. In particular, resource constraints will shape, to a large extent, the actions taken by enforcement bodies. More broadly, enforcement approaches will also differ from case to case, depending on such factors as the nature of the regulations involved (performance based or prescriptive), the visibility of the breach, the cost of rectification and the cost of compliance for firms (ORR 1995b).

The visibility of breaches and the cost of their rectification are particular issues for buildings. As the Campbell Inquiry heard, these factors can have substantial implications for the affected parties:

As the Committee learnt time and again through case studies provided in submissions and at public hearings, when things do go wrong, the impacts extend in many directions. Where the problems relate to actual structural integrity and safety, the consequences can be life threatening. Financial costs to obtain rectification, dispute resolution, rehousing and/or sale costs can mount. In some cases, these costs may lead to significant debt and even bankruptcy. The human costs of problems such as impact on employment, relationships and general health and wellbeing of individuals and families are also a major concern. (Campbell Report 2002, p. 3)

A fault in a building is not necessarily visible, for example it could be present within the foundations or the wall or roof cavities. As such, by the time a user becomes aware of a breach of building regulations, the fault may have been in existence for many years and may have become worse over time.

Given the incentive for builders to devote less effort to compliance in less visible areas, it would be appropriate for penalties in these areas to be significant to counter this incentive. Additionally, the cost of rectification may be more than simply the materials and labour to rectify the problem itself. It can include further work on areas affected by the fault, loss of property value and the loss of the use of the property for a period of time. Again this indicates that building faults, particularly those that may affect other parts of the building (ie structural faults), should warrant substantial penalties.

Building contracts

In addition to the enforcement of building regulations by authorities, consumers themselves may also have some enforcement tools at their disposal. Through the contract they have with the builder, consumers may be able to look after their own

interests by requiring that defects are rectified, specifying certain levels of quality and setting details with respect to deadlines and payments. This way, the consumer can insert requirements above and beyond the BCA in their own contract. The Housing Industry Association noted that the statutory warranties generally included in contracts give ‘... the home owner a genuine right to make a claim for damages for breach of warranty against the builder’ (sub. DR85, p. 9). Enforcement of this contract through building tribunals and the common law court system is a major, though potentially costly, means for the consumer to obtain their desired level of quality in the building process.

The building contract can also be used by parties to shift liability, by assigning the responsibility for compliance with codes and government regulations to a particular party, such as a project manager or sub-contractor. This party then assumes responsibility for any non-compliance with regulation. Contracts can be regulated to require certain base clauses, for example ruling out unconscionable, oppressive or misleading conduct by the builder, requiring insurance, allowing for cooling-off periods and setting limits on when payments may be required. These regulations are often used with respect to home building contracts, where the consumer may possess less information than the builder about the completed building (see box 7.5).

Clear and consistent minimum requirements for home building contracts could go some way to addressing potential information asymmetries between consumers and builders in this section of the market. This, together with general information provided with contracts outlining processes and the parties’ rights and responsibilities, would help in clarifying consumers’ expectations and identifying the risks that they are assuming. However, there are differences in the content and interpretation of the law across jurisdictions, as Master Builders Australia commented:

The current review of the *Domestic Building Contracts Act 1995* (Vic) occurring now in Victoria was called partly in response to the use by developers of the legislation. Until the recent reversal by the Victorian Court of Appeal in *Winslow Constructors Pty Ltd v Mount Holden Estates Pty Ltd* [2004] VSCA159 (8 September 2004), courts had construed the legislation so that it applied in circumstances well beyond the conception of consumer protection legislation. The practical operation of the Victorian legislation compared with legislation in other States also shows the difficulty of having a single template contract for all domestic building works Australia-wide. (sub. DR82, p. 8)

Box 7.5 **Building contracts**

Currently all States and Territories regulate domestic building contracts, except the Northern Territory, which is considering legislation. Below are some examples of regulated contracts.

In Victoria, under the Domestic Building Contracts Act 1995, contracts must include details such as insurance, start and finish dates, cooling-off periods and the price. Victorian contracts must also include details of implied warranties such that work will be carried out in accordance with relevant laws, and using materials that are suitable for their purpose, among other things.

In Queensland, the Domestic Building Contracts Act 2000 requires the inclusion of similar details and warranties. Additionally, consumers must be provided with a 'Contract Information Statement', a document which generally outlines a 'checklist' for the contract, and issues such as insurance and inspections required during the course of work. The information statement also covers matters in the post-construction phase such as maintenance and dispute resolution (similar information booklets are required in New South Wales, South Australia and Western Australia). The Building Services Authority provides templates for both contracts and information statements.

As a result of the Campbell Report, the NSW Government introduced a number of reforms, including changes to home building contracts to include additional information to help prevent disputes. These reforms aim to ensure that the consumer understands major issues within the contract, such as the price (and deposits), insurance, and requirements to obtain building approvals. Additionally, compliance with the BCA and other relevant codes, standards and specifications is to be included in contracts provided by industry associations. These changes took effect from 16 February 2004.⁷ Licensed builders who do not comply with the new contractual requirements may be subject to disciplinary action.

Another example of regulated contracts is in Western Australia, under the Home Building Contracts Act 1991. In addition to setting out insurance requirements, fixing the price, minimising variations to the contract and timelines for payments, Western Australian builders are prohibited from including provisions that are unconscionable, harsh or oppressive.

The Housing Industry Association also noted differences across jurisdictions:

Home building work is already heavily regulated and regulated contracts provide a high degree of consumer protection due to these laws. The laws are made at a State level and vary from State to State. ... These laws are not the same, impose different requirements and use different terms and drafting styles that would make a national template for such work to be impractical. (sub. DR85, p. 9)

⁷ See <http://www.fairtrading.nsw.gov.au/building/builderstradespeople/homebuildingreforms.html> (accessed 24 June 2004).

As such, exact national harmonisation of contractual requirements may not yield net benefits.

Dispute resolution

There are two main circumstances where a party in the building process will seek some form of legal remedy – where they have a dispute with another party (for example, the consumer against the builder, often involving other parties such as architects or designers) or where a party wishes to appeal a decision made by an authority (for example, certification or a decision by a council or a State or Territory department). If disputes arise during the building process, the parties have several options available to them.

Where a party has a dispute with a practitioner, dispute resolution can be both formal and informal. At the first instance, the parties are encouraged to use methods of alternative dispute resolution — to discuss their dispute and attempt to resolve their differences before resorting to more formal, time-consuming and expensive means of resolution. These more formal methods can include:

- complaint to a responsible department;
- appeal to a specialised tribunal;
- notification of a licensing authority where the practitioner is subject to a licensing scheme; or
- taking the matter to a common law (generalist) court, for example, in the case of contract disputes.

Where a party wishes to appeal a decision of an authority, usually a government body, there are several options that exist across jurisdictions, including:

- appeal to the responsible body itself;
- appeal to a specialist tribunal; or
- appeal to an administrative tribunal (such as the Administrative Appeals Tribunal).

Often the longer the dispute resolution process takes, the more expensive, complex and difficult to resolve it becomes. As such, earlier intervention in the process can result in significant savings, if a protracted dispute is avoided. In the context of building, this may be achieved by an early independent inspection of building work (where the standard of the work is at issue), which will resolve particular facts that are under dispute, and lead to faster resolution.

In addition to dispute resolution bodies, the Campbell Report noted the role of other systems — such as consumer protection, contracts, practitioner licensing, insurance and training — in the dispute resolution process:

... [making] other practitioners more accountable in building disputes can be achieved through the licensing mechanism. The recommendations in this report to license other practitioners, to enable consumers to complain about those other practitioners, and to have audits and disciplinary action imposed upon them is one part of improving accountability. By requiring indemnity insurance on those practitioners, the builder is able to pursue a practitioner in cases where they are liable for contributing to the building problem. (Campbell Report 2002, p. 164)

The process of private certification can cause complications in the dispute resolution process. It may be more difficult to obtain information from private certifiers regarding a dispute, as the certifier may have a commercial relationship with the builder. Additionally, in a system that uses both private and council certifiers, some avenues are available against private certifiers (professional boards), while some are specific to council certifiers (government investigation). This can lead to confusion for the consumer, resulting in costs and delays in the dispute resolution process. An example of this arose in NSW during hearings for the Campbell Report:

... When ***** went to council to request a copy of the building application file she was told that it was not possible to provide her with these documents as they would be on the private certifier's file. Sutherland Shire Certification Service said that the only way to view this file was to subpoena it. Mr Peter Blatch (PCA office) explained to ***** that they were independent from Council ...

... [I] spoke to Mr Jeff French, who confirmed that Sutherland Shire Certification Service was an independent certifier ... We lodged a complaint against the independent certifiers to the Building Surveyors Allied Professional Accreditation Board ... The board rang ***** and advised her that Peter Blatch and the PCA were not registered with them and she should ring the urban planning department. ...[the complainant was advised] that the PCA is in fact the council. (Campbell Report 2002, p. 15)

A further issue for dispute resolution is that, as a Code enshrining minimum acceptable standards, the BCA will not dictate the quality of buildings above the minimum. However, many disputes relate to the quality of the work, where the work required was expected to be above the minimum standard. In these cases, the BCA provides little to no guidance for the dispute resolution process. To address this, some jurisdictions have published 'guidelines to standards and tolerances' (as noted earlier) to provide guidance on judgments to be made regarding quality standards that are not covered by the BCA.

Suggestions for the future

As mentioned above, disputes may involve recourse to forums that apply more legal than technical standards. The HIA commented that ‘the general principle of resolving disputes on the basis of technical merit rather than legal assessment does appeal’ (sub. 6, p. 40). Greater recourse to bodies constituted by technical experts, applying technical standards, is likely to reduce the time and cost associated with the resolution of building disputes. The Campbell Report examined the issue of dispute resolution and it favoured the use of technical standards, commenting that:

...the [New South Wales Consumer Trader and Tenancy] Tribunal should modify its use of technical witnesses and expert reports. It has been proposed that where expert opinion is needed, the Tribunal should establish a standing panel of building experts. These experts would provide a report on the disputed matter to both parties which would be jointly filed. (Campbell Report 2002, p. 161)

The Property Council of Australia also favours a dispute resolution system that considers non-legal solutions, stating that it:

... believes national reform would be assisted by the adoption in all states and territories of Building Appeals Boards, as they exist in Victoria.

These would have a role dealing with non-contractual dispute resolution, alternative solutions, and technical appeals. (sub. 52, p. 32)

Often disputes can arise over workmanship or compliance with regulations. Such disputes lend themselves to resolution by technical expertise. However, parties will always retain the option for legal recourse in their dispute resolution. For example, contractual disputes may raise more points of legality than technical standards, and as such may not be so easily resolved. Where base contracts are regulated in jurisdictions and the dispute is over the regulated provisions of the contract, involvement of the responsible department at an early stage of the dispute may help to clear up any complications. However, where the provisions under dispute were inserted by the parties and do not contravene building regulations, it may be up to a court of law to decide if the contract is valid and if it has been upheld by the parties.

7.7 Maintenance

The role of building regulation does not cease once a building is completed and occupied. Beyond codes for the construction of a building, the BCA contains provisions concerning the maintenance of essential services, particularly aspects relating to fire safety. As mentioned in chapter 5, these provisions apply to commercial, not residential, buildings. As such, regulatory systems must monitor

these aspects of maintenance of commercial buildings to ensure ongoing compliance with the BCA.

Typically councils are responsible for enforcing essential services maintenance, with procedures usually set at a State (or Territory) level.⁸ Most jurisdictions have chosen to administer inspections with a system of self-certification by the building owner, coupled with random checks by either building surveyors or fire authorities. The owner must prepare documentation, in a 'check list' fashion, to record a maintenance check. Depending on the jurisdiction, this documentation must either be lodged with an authority (for example, a Fire Commissioner) or be displayed or easily available on the property in case of an inspection.⁹ If an inspection is failed, penalties may include fines levied by the inspector or by a council. Arup Fire noted that greater emphasis is now being placed on building owners to document and trace all fire safety maintenance, due to the potential legal implications of not completing this task (sub. DR88, p. 8).

As with other administrative systems in building regulation, differences exist in the administration of maintenance across the States and Territories. Arup Fire pointed to the need for a national set of guidelines regarding maintenance, saying:

Whether a building is developed through a performance based solution or one that wholly meets with the prescriptive requirements, a national set of guidelines regarding maintenance is required. Many accidental commercial fires in Australia in the past 20 years have been caused through poor building maintenance, whether it be inactive fire systems, illegal building works or general poor maintenance to aspects such as fire doors or fire walls. There are presently national Australian Standards for the installation of fire safety features (passive and active) and yet there is no national approach to maintaining these fire safety elements. (sub. 15, p. 4)

It suggested that the New Zealand 'Building Warrant of Fitness' and IQP system could be adapted for use in Australia (sub. 15, p. 4).

The Fire Protection Association of Australia agreed, saying:

... FPA Australia strongly supports the adoption of uniform inspection, testing, preventative maintenance and survey regimes on a national basis. The Association believes that this is best accomplished by adoption of Australian Standard AS1851 ...

Ideally, AS1851 should be referenced in the Building Code of Australia. Alternatively, it should be adopted in State regulations. In this way ... the true intent of installing such essential protection services is realised in the continuum. (sub. 19, p. 9)

⁸ There are no requirements for essential services maintenance in either Western Australia or the Australian Capital Territory. The Northern Territory is currently proposing to introduce essential service maintenance requirements as part of a review of its *Building Act 1993* (see appendix G).

⁹ See for example, maintenance requirements in Victoria: <http://www.buildingcommission.com.au/www/default.asp?casid=3136> (accessed 2 July 2004).

The KPMG impact assessment of ABCB reform activities also noted that:

It is not clear who is responsible for maintenance of the documentation and the ongoing enforcement of the standards and it was suggested that the ABCB could assist in clarifying this. (2000, p. 40)

The HIA argued that '[m]andatory maintenance procedures should be administrative provisions as they relate to administrative processes that need to be undertaken throughout the life of the building ...' (sub. 6, p. 36). HIA suggest these provisions should be part of the national administrative framework.

In addition, the ABCB Chairman noted that:

Further work is necessary to resolve concerns industry has about the lack of consistency on how maintenance is administered under the current state-based approach. (sub. 4, p. 52)

Without ongoing inspections and enforcement, the intent of the BCA to maintain essential services to a particular level may not be delivered. Given that maintenance requirements apply to many commercial buildings across Australia, and that they form a regular, recurring part of building operation, the compliance costs associated with administering the requirements has the potential to be high.

In line with other inspection and approval requirements, some degree of national consistency in the administration of maintenance would be beneficial. For example, in relation to the handover of buildings to new owners, the KPMG report found that:

Case study participants suggested that the BCA be further enhanced in that a new and separate section dealing with the handover of buildings to new owners be established. ...Given the variety of practises and standards participants suggested that a minimum requirement in respect of the handover procedure, format of documentation, and follow up of fire related procedures be established. (2000, p. 49)

Agreement across jurisdictions as to the most appropriate and efficient administrative provisions for maintenance requirements, and the subsequent issuance of clear, concise national guidelines, would provide benefits to both owners of buildings and regulators. The Municipal Association of Victoria supported this, commenting that '[m]aintenance requirements don't change simply because you have crossed a State border' (sub. DR71, p. 8). Master Builders Australia acknowledged that essential services maintenance has a place in building regulation, but noted that 'it is essentially up to the owner to put in place the most appropriate preventative maintenance to ensure the building performs as designed' (sub. DR82, p. 8).

The ABCB should provide a forum for jurisdictions to work towards reaching agreement as to the most appropriate and efficient administrative provisions for maintenance requirements.

7.8 Regulatory systems — national consistency?

This chapter has discussed a number of issues relating to the administration and enforcement of the BCA and has highlighted areas where improvements could be made to deliver better compliance with building regulations. In a number of areas, the Commission has suggested jurisdictions could benefit from sharing information and best practice. However, a number of interested parties have pointed to additional benefits arising from increased national consistency and have called for further progress in this area. They argue that, in some instances, achieving a consistent approach across States and Territories may provide greater net benefits than each individual jurisdiction implementing its own solution. This section looks at the desirability of increased national consistency for building administration, some possible approaches to this and whether greater national consistency is an achievable goal.

Is administrative consistency desirable?

There appears to be support for introducing greater national consistency into the current diverse range of approaches to the administration of the BCA across the States and Territories. In a report for the ABCB on costs and benefits of harmonisation of administrative processes, the Allen Consulting Group commented:

This uncoordinated administrative process is inconsistent with best practice regulatory approaches. In particular, the arrangements are inconsistent with the concept of ‘minimum effective regulation’ that seeks to remove duplication and unjustified inconsistencies between jurisdictions.

It is illogical that so much effort has been put into developing a single technical building standard that is then applied differently in each Australian jurisdiction. This alone is sufficient justification for harmonisation oriented reform. (2002, p. vi)

The 1999 Technical Review of the ABCB suggested that ‘failure to achieve a reasonable level of consistency in the administration of the national codes has been viewed by many as perhaps the one major failure of the ABCB’ (Meacham et al 1999, p. ii). The authors believed a substantial benefit had not yet been realised and that a review was required to determine the appropriate role of the ABCB in

achieving greater consistency (p. 15). They recommended the task of achieving uniformity in the building regulatory system ‘should be ascribed a high level of priority for ABCB resources’ (p. 51).

A number of interested parties also expressed the view that development of a national harmonised administrative framework should be a high priority. BPIC stated that nationally consistent building administrative provisions ought to be introduced as a matter of urgency (sub. 23, p. 4). Industry members from the New South Wales Building Regulations Advisory Council stated that the development of a national administrative framework, with a commitment from State and Territory Governments to introduce the procedures without change, needed to be given the highest priority (sub. 25, p. 2). And a current member of the ABCB Building Codes Committee noted:

Most of industry’s current regulatory frustration is in this area of variation between the States and Territories both in the application of regulatory requirements and building control systems adopted by them. (sub. 12, p. 2)

The WA Government Department of Housing and Works commented that the harmonisation of jurisdictional administrative provisions could have numerous benefits, including:

- enabling the growth of interstate, and international, business by making it easier for a manufacturer to enter the market knowing that a national system of building regulatory measures is consistently applied across the nation
- supporting access to a national pool of suitably qualified, and accredited, building practitioners who are conversant with national building control law
- facilitating building surveyors, builders, architects, engineers and other building industry professionals understanding of the relevant Acts, Regulations and Codes by reducing the number of jurisdictional differences currently embedded in State and Territory building control legislation. (sub. 14, p. 2)

The Property Council of Australia further suggested that regulatory improvements are being undermined by ‘structural weaknesses in the administration of building regulation that are outside the control of the Board and staff of the ABCB’ (sub. 52, p. 16). The Council believed that the solution to this would include the development and implementation of a national administrative framework. It recommended:

That the revised IGA contain principles for the regular review and reform of state and territory building control schemes with a view to achieving national consistency by 2010. (sub. 52, p. 26)

The Allen Consulting Group estimated that harmonisation of building control administration around best practice models could result in a saving to the community of between \$214 million and \$402 million per year (2002, p. vii). These gains accrue to governments, industry and consumers as:

-
- governments' administrative costs fall, their access to knowledge and expertise rises, and their ability to respond to new issues increases;
 - industry faces lower compliance costs, increased certainty, greater opportunities for cross border activity and economies of scale and more incentive for innovation; and
 - consumers take advantage of lower prices and greater choice of practitioners, greater certainty and improvements in the safety and quality of buildings (2002, pp. 21-27).

The Group suggested that the benefits of harmonisation would be spread relatively broadly throughout the community and transitional costs were unlikely to be significant for any single stakeholder group (2002, p. 36).

However, the Victorian Government cautioned that, while consistency was beneficial in cases where jurisdictional differences created inefficiencies or negative externalities, it could also create costs. For example, it suggested:

... harmonisation of matters such as registration of building practitioners would represent a significant change to the status quo and a more significant administrative burden, with the gains likely to be marginal. (sub. DR91, p. 3)

Approaches to achieving increased administrative consistency

There are a number of possible approaches to achieving greater uniformity in the administration of building regulation across States and Territories. As the Allen Consulting Group pointed out, these approaches sit on a spectrum between complete uniformity of law and policy and no uniformity at all (2002, p. 37). Importantly though, different areas of regulation may suit different levels of uniformity — an assessment of costs and benefits may suggest a higher level of uniformity in the approvals process compared to dispute resolution, for example.

If increased uniformity was to be pursued, a useful (and quickly achievable) starting point may be the establishment of common terminology across jurisdictions. This would enable easy comparisons of regulatory requirements across States and Territories and would facilitate industry and consumer understanding of required processes. A similar exercise was undertaken by the Development Assessment Forum with respect to planning terminology, although the extent to which the agreed terminology was adopted appears to have been limited.

A second step may be to streamline or consolidate the range of government departments and other bodies involved in the regulation of the building industry in each jurisdiction. This would enable industry, consumers and other jurisdictional

regulators to quickly identify appropriate points of contact and sources of information. It may also bring greater efficiencies within governments. The HIA commented that industry efforts to foster the development of a national regulatory environment ‘are frustrated because of the numerous Ministerial portfolios and bureaucracies responsible for building regulations within Federal and State governments’ (sub. DR85, p. 5). However, the benefits of consolidation would need to be balanced against any possible disadvantages, such as loss of expertise. At the least, States and Territories should ensure that adequate consultation mechanisms exist between those agencies involved in building issues in their jurisdiction and that agency roles are clear (see chapter 10).

Beyond these initial steps, the Allen Consulting Group’s preferred option for increasing the level of harmonisation was commitment to a new Model Act, with an intermediate step of agreeing to nationally consistent principles (2002, p. 43). This option was judged to provide the greatest benefit when scored against criteria including: the difficulty in gaining agreement/implementation; the degree of initial uniformity; the ongoing cost of maintaining uniformity; and the degree of ongoing uniformity.

The Model Act option has a number of desirable features. First, the existing model legislation may be used as a ‘conversation starter’ to form a consensus amongst jurisdictions on national principles and then an updated Model Act. (Indeed, the 2003-2004 ABCB work plan lists the revision of the Model Act and advancing key principles as key tasks in achieving a consistent regulatory framework (sub. 4, p. 33)). Second, the option may be more palatable for jurisdictions, as it does not require word-for-word adoption of the legislation.

However, as noted earlier, greater uniformity of legislation will not, by itself, bring uniformity to the regulation of building. The accompanying regulations would also need to be aligned, in order to achieve the highest level of uniformity. At a theoretical level, such alignment may be desirable as it would bring total transparency and clarity to the requirements across jurisdictions. However, at a practical level the costs and benefits of achieving uniformity at this high level of detail require further examination.

Is greater consistency an achievable goal?

The extent to which greater consistency in the administration of building is achievable depends a great deal on the drivers behind the current differences across jurisdictions. Sometimes, differences in the regulation or in the way it is implemented and enforced reflect underlying differences in legal frameworks and regulatory philosophies. Hence, it can be difficult to transplant identical standards

into the regulatory machinery of different States and Territories. However, there are other cases, where it is difficult to understand why regulatory differences prevail. Sometimes, one can only conclude that the pursuit of difference reflects either a desire to protect local industry, using standards to act as non-tariff barriers to trade; or a desire to justify the existence of state-level or local-level bureaucracy.

Interested parties offered a variety of opinions on this, but many pointed to a lack of impetus for change as a prime reason for the continuation of the status quo, with the HIA suggesting that:

... political will is the panacea for some State/Territory allergic reactions to national consistency in building regulations. (sub. 6, p. 12)

The HIA considers the governance arrangements of the ABCB Board are a prime reason for the lack of fulfilment of some of its objectives, including that of greater national consistency in administration of the Code (sub. 6, p. 38).

Alternatively, the WA Government Department of Housing and Works suggested that, while it would be desirable to have truly uniform legislation on building standards and administrative frameworks, ‘the time and cost involved in such an exercise are unrealistic ...’ (sub. 14, p. 5). The Department suggested, however, that scope for further harmonisation exists in some of the newer building issues, such as insurance, sustainability and amenity, and that:

The most achievable outcome is national harmonisation of administrative process, supported by individual legislation in each jurisdiction to deliver a consistent framework. (sub. 14, p. 5)

The resources available to each jurisdiction to undertake administrative tasks is also an important consideration. Some jurisdictions may simply be unable to provide extra staff or funding to bring their building regulatory systems into line with a new national regime.

Given these considerations, the feasibility of achieving greater consistency may differ according to the particular administrative process. For example, greater consistency in the approvals process may be more feasible than greater consistency in dispute resolution. A standardised process and timeframe for approvals could be implemented by private certifiers (so lessening the impact on government resources) and is of prime importance to the achievement of health, safety and amenity outcomes (so raising the probability that governments will want to move towards a best practice system). In contrast, more consistent dispute resolution could put considerable pressure on smaller governments to upgrade their systems, where greater gains could possibly be made from improving, say, enforcement procedures so that recourse to dispute resolution is not needed as frequently.

The structure of the planning and building system in each State and Territory may also affect the level of consistency that is achievable. The South Australian Government noted:

The model building legislation does not fit well with a unified development control system such as exists in South Australia. While it is desirable to have a nationally consistent administrative framework, and a lot can be done to substantially achieve this, complete uniformity is unlikely until the planning system is also nationally consistent. (sub. 36, p. 17)

The ABCB Chairman suggested consideration be given in any revised IGA as to how the ABCB might progress harmonisation of administration arrangements. Certainly, the ABCB, as a group with representation from all Australian jurisdictions, would be well placed to act as a central secretariat for work on national administrative consistency and as a forum where jurisdictions could share experiences and ideas on best practice. However, the Victorian Government noted that adoption of harmonisation as part of the ABCB's forward agenda 'should be considered having regard to the ABCB's relative priorities' (sub. DR91, p. 3). Given the extent of ABCB activities related directly to the Code, as discussed in chapters 5 and 6, the attainment of national consistency in administrative systems for building regulation may be of lower priority for the ABCB than some other Code-related issues.

However, if the ABCB were to accord the issue of greater consistency in the regulatory framework for building a higher priority, an achievable program might progress in the following manner:

- agreement on consistent terminology;
- agreement on national principles for building regulation;
- implementation of a revised Model Act on administration of the BCA; and
- agreement on consistent regulation regarding: approval processes; certifiers; enforcement; maintenance; licensing and accreditation for building practitioners; dispute resolution; and insurance.

The NSW Government supported a progressive approach to consistency, whereby:

... key issues which impact on the administration, implementation and enforcement of the BCA, are identified and agreed and model provisions offering a consulted solution to these issues are developed for consideration of inclusion in State and Territory legislation when such legislation is being reviewed or amended. (sub. DR87, p. 1)

The South Australian Government agreed that State and Territory legislative programs may dictate the speed of adoption of any changes to administrative procedures:

... complete consistency of the administrative systems on a national basis needs to be seen as a desirable long-term goal and an overall framework would provide the basis for progressive improvements.

The Inter Government Agreement may need to include a provision for implementing legislative changes within a set time (say 5 years) of the principles (or key features) being agreed. (sub. 36, p. 4)

FINDING 7.5

While there may be benefits from some alignment across jurisdictions of administrative processes, it is not clear that net benefits would arise from harmonisation of all aspects. A progressive approach, advancing harmonisation in those areas with the largest net benefits, may be appropriate. Effective compliance and enforcement is a higher priority than full national consistency at this stage.

7.9 Future role of the ABCB

It is clear that there is room for improvement in the compliance and enforcement of the BCA. Many interested parties pointed to deficiencies in the current administrative procedures and the negative consequences of these for building outcomes, and strong support was expressed for improvements to the compliance and enforcement of the BCA. While some improvements could be introduced through a national approach, it is likely that most progress will be made through reforms at a State and Territory level. The question is what role, if any, the ABCB might play in addressing the concerns of the building industry and promoting better processes with regard to the administration of the Code.

In his submission, the ABCB Chairman pointed out that the original IGA did not include administrative arrangements in its scope as it was not envisaged to be a problem (sub. 4, p. 19). However, reforming the administration of the BCA was seen as an important task for the ABCB. This may be not only because of its deregulatory aspects (which contribute to objective 3 for the ABCB), but also because of the increasing calls for progress on this issue from the industry.

The ABCB's 2003-04 work program included a Committee whose function was to seek greater harmonisation across Australia in the administration of the BCA. They estimated that further harmonisation could yield savings for the Australian economy of more than \$400 million annually (ABCB 2003a, attachment d, p. 10). However, the ABCB Office noted that while some elements of the harmonisation strategy (such as the proposed new national product certification scheme) had advanced well, work on the National Legislative and Administrative Framework was significant, complex and required significant resources (sub. 50, p. 5). The Office

suggested slower progress in this area in part reflected the demand on the resources of State and Territory administrations from other major reform work, such as disability access (sub. 50, p. 5).

The ABCB Chairman suggested there is now ‘a need for continued development through the ABCB’s work programme to develop a best practice model that State and Territory governments can adopt when considering where building control should be positioned and what linkages should exist with other regulatory agencies’ (sub. 4, p. 19). BPIC believed this should be a priority for the ABCB and noted:

BPIC sees this activity as being yet another piece in the design to arrive at a nationally consistent approach which does not stop at written form but extends to application and interpretation at all levels of Government. (sub. DR84, p. 3)

The ABCB Chairman noted that this ‘best practice’ approach was intended in the work already undertaken on harmonisation of regulatory practices, but would require a higher level of priority and resources from States and Territories if progress is to be made (sub. DR75, p. 11). The Fire Protection Association of Australia noted that key stakeholders ‘could provide valuable input into identifying and communicating best practices that improve compliance and enforcement of the BCA ...’ (sub. DR70, p. 6). Master Builders Australia also supported industry involvement to achieve ‘best practice from both a construction and a policy setting’ (sub. DR82, p. 9).

RECOMMENDATION 7.2

The ABCB should work at identifying and communicating best practices that improve compliance and enforcement of the BCA. The development of a best practice administrative model, for use by States and Territories, is one option for achieving this.

A revised Inter Government Agreement would be the appropriate mechanism to empower the ABCB to pursue recommendation 7.2 (see chapter 11). A best practice administrative model could eventually be used as a base for increased national consistency, in areas where net benefits may be realised from uniformity.

8 Code-making processes and access

This chapter discusses issues relating to the processes employed in developing and amending the BCA (the Board's principal role), including processes for referenced standards (section 8.1). It also examines various concerns regarding access to the Code, including the Board's cost recovery policy (section 8.2).

The chapter directly addresses IGA objectives three, five and eight, but also indirectly addresses most of the other objectives in so far as processes impact on outcomes.

8.1 Regulation making: the Code and standards

The process for developing additions and amendments to the BCA involves extensive research and consultation, with input from the community, industry, professional and specialist technical organisations, as well as the Australian, State, Territory and Local Governments. This is facilitated through a network of technical and advisory committees, as well as through open community consultation.

Proposed amendments to the BCA are produced as a Regulation Document (RD) that is circulated to the States and Territories and also disseminated more widely for public comment. In addition, for more significant Code reform proposals, a Regulatory Impact Statement (RIS) is prepared and released for consultation (see below).

After taking account of feedback received through the consultation process, the final document is published by the ABCB, as an amendment to the BCA. Up to 2003, amendments to the Code were issued twice a year. However, with the publication of BCA 2004, the ABCB has moved to an annual amendment cycle.

The rest of this section discusses the following aspects of the Board's regulation and standard-making processes:

- economic evaluation and regulation impact analysis
- referenced standards
- consultation

-
- timeliness of reforms
 - updating of the Code.

Economic evaluation/impact analysis

Australian governments have imposed quality control processes to ensure that regulation should not be introduced unless it results in net benefits to the community. Regulatory agencies are required to justify the need for explicit government regulation and consider alternative ways of attaining policy objectives. In addition, regulatory arrangements must adhere to the Competition Principles Agreement, which requires governments to remove from regulations any provisions that restrict competition, unless it can be demonstrated that there is a net public benefit and the objective cannot be achieved by any means other than restricting competition.

The statement of goals contained in the introduction of both volumes of the BCA notes the intention: ‘that the BCA extends no further than is necessary in the public interest, is cost effective, easily understood, and is not needlessly onerous in its application’. These aims are consistent with several of the best practice design principles for quality regulation, set out in chapter 3.

As a national standard setter, the ABCB must comply with the *COAG Principles and Guidelines for National Standard Setting and Regulatory Action by Ministerial Councils and Standard-Setting Bodies* (COAG 2004)¹ — the major element of which is the preparation of a RIS (see box 8.1). The RIS is a major vehicle for ensuring quality control. It calls for an economy-wide perspective in identifying who benefits from the regulations, who incurs the costs and whether the regulation achieves its objectives without excessively burdening the community. With the preparation of a national RIS that satisfies the COAG requirements, it would normally not be necessary for States and Territories to prepare separate RISs to meet their own scrutiny requirements (although on occasion they do).

In 1997, the ABCB developed an *Economic Evaluation Model* to assess the impact of building code proposals ‘that may involve increased cost burdens for industry, consumers and government’ (ABCB 1997, p. i). The model was designed to satisfy the COAG RIS requirements. It is based on a staged approach, with an initial preliminary analysis determining whether more detailed impact analysis is necessary. Only proposals having a major impact undergo every step of the model (which is equivalent to undertaking a RIS).

¹ The COAG Principles and Guidelines were endorsed by COAG in 1995 and amended in 1997 and 2004.

Box 8.1 Regulatory Impact Statement (RIS) requirements

A RIS is a document prepared by the department, agency, statutory authority or board responsible for a regulatory proposal. It requires an assessment of the costs and benefits of various feasible options, followed by a recommendation supporting the most effective and efficient option. A RIS should be available for consideration by decision makers prior to decisions being taken about regulatory issues. RISs are used by all levels of government except local government. RISs should be publicly available.

The RIS process for national standard setting

COAG requires RISs to be prepared for proposed new regulations, or existing regulations that are reviewed or reformed, by Ministerial Councils and national standard-setting bodies. These requirements are set out in COAG's *Principles and Guidelines for National Standard Setting and Regulatory Action by Ministerial Councils and Standard-Setting Bodies* (COAG 2004).

Where a Ministerial Council or standard-setting body proposes to agree to regulatory action or adopt a standard, it must first certify that the regulatory impact assessment process has been adequately completed. Adequate completion requires that an impact statement for the proposed regulatory measures has been prepared, which:

- demonstrates the need for regulation;
- details the objectives of the measures proposed;
- outlines the alternative approaches considered (including non-regulatory options) and explains why an alternative approach was not adopted;
- documents impacts, showing which groups benefit from regulation and which groups pay the direct and indirect costs of implementation;
- demonstrates that the benefits of introducing regulation outweigh the costs (including compliance and administrative costs);
- demonstrates that proposed regulation is consistent with relevant international standards (or justifies the extent of inconsistency); and
- sets a date for review and/or sunseting of regulatory instruments (COAG 2004, pp. 9-10).

State and Territory RIS processes

Formal RIS requirements exist in New South Wales, Victoria, Queensland, South Australia, Tasmania, the Northern Territory and the ACT. Western Australia does not have formal RIS requirements, however, it does have requirements for Small Business Impact Statements and Regional Impact Statements. RIS requirements for each State and Territory are outlined in appendix E of *Regulation and its Review 2000–01* (PC 2001b) and appendix D of *Regulation and its Review 2002-03* (PC 2003c).

Sources: COAG (2004), PC (2001b), PC (2003c).

The full model comprises:

- a rationale check;
- identification of alternative ways of achieving the objective;
- an assessment of impacts (financial and non-financial) on major stakeholders;
- detailed analysis of those factors assessed as having a major impact;
- sensitivity analysis; and
- a final comparison of alternatives, finishing with a suggested approach (ABCB 1997, pp. 101–103).

Consistent with the COAG Guidelines, a draft or consultation RIS is prepared for public comment. The consultation period is typically 6-12 weeks. After taking into account feedback from industry and other stakeholders, a final RIS is prepared and presented to the Board as an input to its consideration of proposed changes to the Code.

All RISs are assessed by the Australian Government Office of Regulation Review (ORR) for adequacy of analysis and whether the RIS satisfies the COAG requirements.²

Under the COAG Guidelines, the Board, taking into account the advice of the ORR, must ‘certify that the regulatory impact assessment process has been adequately completed’ and ‘that the results justify the adoption of the regulatory measure’ (COAG 2004, p. 9). The Property Council of Australia (PCA), as part of a broader proposal for reform of ABCB governance arrangements (see chapter 10), recommended the establishment of an independent expert *Regulatory Assessment Panel*. The Panel, which would comprise government (including the ORR) and industry representatives, would be responsible for:

- considering areas proposed for inclusion in the Building Code of Australia and determining whether a sufficient case for regulation has been made;
- considering draft regulatory impact statements and approving their release for public consultation; and
- providing ongoing advice as to the degree to which regulation should be pursued in the building sector. (PCA, sub. 52, p. 14)

² The ORR assesses RISs at two stages: before they are distributed for consultation; and again just prior to a decision being made. The COAG requirements make it clear that the depth of analysis in the consultation RIS need not be as great as in the RIS for decision makers. The final document should reflect the additional information and views collected from those consulted, and provide a more complete analysis (PC 2003c, p. 60).

The Commission considers that the establishment of the type of Panel recommended by the PCA is neither warranted, nor appropriate. Under the current institutional arrangements for review and certification of RISs, the ORR provides the necessary *independent* and expert advice to the Board. Through existing committees and consultative processes, there is sufficient opportunity for stakeholders and experts to comment. It is appropriate that the Board, as the decision-making body, make the judgments that are envisaged by the PCA as responsibilities for a Panel, and therefore the establishment of such a body would introduce unnecessary duplication.

Examples of regulatory proposals for which RISs have been prepared include: the Energy-Efficiency Measures for Housing; Energy-Efficiency Measures for Class 2, 3 and 4 Buildings; Sound Insulation Provisions; Fire Hazard Properties of Building Materials and Assemblies; and the Disability Standards for Access to Premises. RISs are published on the ABCB website.

There is widespread recognition amongst interested parties of the importance of good process and regulatory impact analysis. For example, the Housing Industry Association (HIA) stated:

The most important goal for the BCA should be that it develops regulations in accordance with the COAG document Principles and Guidelines for National Standard Setting and Regulatory Action by Ministerial Councils and Standard-Setting Bodies. The processes described within this document should achieve the most appropriate outcome and therefore, by inference, be acceptable to the community. (sub. 6, p. 31)

Adequacy/compliance with COAG RIS requirements

ORR reporting indicates that the ABCB has a good record of compliance with the COAG Principles and Guidelines over many years.

The Queensland Government (sub. 41, part 2, p. 9) considers that the regulatory impact analysis system for changes to the BCA is working effectively and that there has been adequate cost benefit analysis of proposals and evaluation of alternatives. The South Australian Government notes that:

... the regulation impact analysis utilized for changes in the BCA is extremely thorough and cost-effective benefits have to be demonstrated before implementation. (sub. 36, p. 3)

Nevertheless, the NSW Department of Housing (sub. 33, p. 3) did make the general observation that the 'scope and quality of Regulation Impact Statements and reform processes appears to have declined over the last five years'. Master Builders Australia (MBA) had concerns about some recent RISs, which contained important 'flaws and omissions' (sub. DR82, p. 9).

While, overall, the ABCB RISs have generally been of a good standard and commensurate with the significance and likely impacts of proposals, there is scope for improvement, particularly in the following areas:

- the trigger for the preparation of a RIS
- consideration of non-regulatory alternatives
- the stage at which RISs are prepared
- coverage and treatment of costs and benefits
- the need for more explicit risk analysis
- ex post reviews.

Trigger for a RIS

Currently the ABCB prepares a RIS for *significant* changes to the BCA. For changes considered to be very minor or of a technical and/or editorial nature, not likely to have a significant impact on industry or the community, no impact analysis is undertaken. Where the significance of likely impacts is not clear, the Board will initially conduct a less detailed preliminary impact analysis (PIA) (and only then prepare a full RIS if further analysis is warranted — determined in consultation with the ORR).

The Building Products Innovation Council (BPIC) considered that:

All changes to the BCA must be subject to an impact assessment to ensure the changes are in the best interests of the community ... (sub. 23, p. 54)

HIA (sub. 6, p. 28), also proposed that RISs ‘should be prepared for all changes to regulatory regimes (other than editorial amendments) ...’.

The ORR is not always consulted, where decisions are taken not to prepare a RIS, and this has concerned some participants.

While the Commission considers it appropriate that the level of analysis should always be commensurate with the significance of impacts (and therefore, by extension, that no RIS should be required for minor changes), there are always going to be some ‘grey’ areas. It is important that any decision not to undertake a RIS (or at least a PIA) is well informed — if necessary on the basis of preliminary consultation with relevant technical experts/affected parties. The ORR should also be consulted wherever the COAG RIS requirements may be triggered.

It may also be appropriate for the ORR to undertake additional ex post checking of the judgments of Board staff, by randomly reviewing an appropriate number of the Board's decisions not to undertake a RIS.

Consideration of non-regulatory alternatives

One criterion for assessing compliance with the RIS requirements is whether there has been adequate consideration of alternatives, including non-regulatory options. However, the focus of the ABCB's mission statement is on meeting objectives through regulatory instruments.

The Australian Elevator Association (AEA, sub. 44) submitted:

The ABCB mission statement unfortunately places too much emphasis on creating codes, standards, and regulation. And indeed the culture at the ABCB, based on the output, seems to be one of needing to codify and prescribe "how" to comply. (p. 4)

Instead of more prescription, more needs to be done to empower industry to make informed and economic decisions for itself. (p. 5)

While the ABCB RISs have been assessed by the ORR as containing sufficient consideration of alternatives, the prime role of the Board as a code writer may have created a mindset based on regulatory solutions. This appears to constrain, to some degree, the early and integrated consideration of non-regulatory options.

The ABCB should, at the earliest possible stage, consider all feasible alternatives (whether available to the ABCB or not) for addressing an issue, including non-regulatory options. Where a non-regulatory solution is judged to be the best option, further policy development could be referred to the appropriate body.

Stage at which RISs are prepared

In order to obtain the maximum benefit from the RIS process, the RIS should be prepared as early as possible in the regulation/standard development process. (The standards development process is discussed later.) Further, the cost-benefit framework underpinning a RIS should be used throughout the process. This ensures that community-wide impacts are central to the assessment of the relative merits of alternative options right from the outset, and that sectional interests do not dominate choices made early in the development process.

The Commission considers that this best practice model has not always been applied, in particular where proposals for changes to the Code are based on new or amended Australian Standards. Rather, the RIS is prepared relatively late in the process. Standards Australia International (SAI) typically does not formally apply a

RIS framework during the early consideration of the standards. Yet, it is at this earlier stage where there is the greatest opportunity to identify feasible alternatives — including non-regulatory options, or different regulatory approaches. With current practice, by the time a RIS is prepared it effectively becomes an assessment of whether or not to adopt a specific well-developed proposal for which a substantial level of commitment already exists (certainly substantial Committee time has already been invested). There is also the risk that a RIS in such circumstances can become more of an advocacy document than a balanced assessment of feasible alternatives.

Coverage and treatment of costs and benefits

Several submissions raised issues relating to the coverage and/or treatment of costs and benefits in RISs. Some had concerns about the ability of RISs to take account of *all* relevant costs and benefits (in particular those that are hard to quantify), while others raised issues about the treatment of specific costs and benefits.

A number of submissions raised particular concerns in relation to the recent draft *Access to Premises Standard* RIS. AEA, for instance, commented:

The cost-benefit analysis ... in the Premises Standard RIS is seriously flawed and it can even be argued that it is misleading. It also relies too much on "qualitative" assessments of cost and benefits. The impact of the proposed regulation in Australia would be enormous and we believe the level of detail in the RIS is not commensurate with the impact of the proposed regulation. COAG principles further indicate that a RIS should be able to demonstrate that the benefits of the regulation should outweigh the costs. The RIS does not do that and the quantifiable benefits fall well short of the costs which are furthermore understated. (sub. 44, p. 21)

The Disability Council of NSW also raised specific concerns relating to the RIS for the *Access to Premises Standard*, but, more fundamentally, questioned the application of cost benefit analysis:

- ... it is only appropriate when attempting to measure that which is measurable in dollar terms (ie it is inappropriate when trying to determine if making premises accessible will benefit members of the community); (sub. 26, p. 16)

The Australia and New Zealand Solar Energy Society (ANZSES) also expressed concern that:

... an impact assessment made purely on economic rationale may be flawed, especially in relation to issues of energy efficiency and energy use. There are often perceived increased costs, both real and imagined, incurred with the implementation of energy efficient measures, but when taken in a holistic context of social, environmental and human amenity, the benefits will often outweigh such costs, real or otherwise. Such assessments should clearly indicate what criteria are being assessed – if the objective of

energy efficiency regulation is to achieve reduced greenhouse gases which in turn will benefit the community economically (as well as environmentally) to then reject such measures due to short term cost increases would be foolhardy. Such assessment must be clearly identified for criteria and relevance to the particular reform being proposed. (sub. 1, p. 7)

In fact, RISs are intended to comprehensively identify and assess all significant costs and benefits (economic and social), whether they be short-term or long-term and whether they can be quantified or whether only a qualitative assessment is feasible. The COAG Principles and Guidelines (COAG 2004) provide the following guidance:

... impact assessment should attempt to assess all costs and benefits to the greatest extent possible, that is, not just economic ones. For example, social and environmental, public health and consumer safety effects should be considered. (p. 4)

Inevitably, some costs and benefits resist the assignment of dollar values. Known as 'intangibles', these are separately presented to decision-makers for assessment in conjunction with those that can be quantified. (p. 27)

Thus, the COAG requirements make it very clear that broader social considerations (for example, the benefits of improved access for people with disabilities), which may not be quantifiable, must still be considered as part of the impact assessment.

Participants highlighted a number of specific areas where the coverage of impacts in RISs could be improved, including:

- recognition of cumulative costs
- better consideration of life-cycle costs and benefits
- the treatment of compliance costs — including recognition of possible material supply constraints and the costs of compliance with administrative processes
- more comprehensive assessment of fire consequences.

For example, BPIC considers that there is inadequate attention paid to the *cumulative cost impacts* of regulations:

Regulators are failing to recognise the cumulative costs arising from the incremental impacts of each change or variation introduced over time on housing.

At the last count there are over 1100 pages of the national building code, some 100 state and territory government variations and additions, and over 200 standards relating to building products, design and construction referenced or called up in the BCA. (sub. 23, p. 27)

Such cumulative costs should be considered as far as possible in RISs prepared for specific BCA amendments. However, this may often not be feasible. Periodic

reviews of building regulation more generally would provide a better opportunity to consider such cumulative impacts.

In relation to *life-cycle costs*, the Insurance Council of Australia (ICA) submitted:

The cost benefit assessments made by the BCA are inappropriate, as they tend to concentrate solely on the initial cost of the building. The BCA ignores the potential costs to building owners over the life of the building. (sub. 38, p. 1)

On *supply chain constraints*, HIA noted that:

... RIS do not appear to address issues such as the availability of materials or components of construction that will need to be used in order to comply with new proposals. (sub. 6, p. 28)

Further, HIA emphasised that RISs must address *compliance costs*, including:

- compliance with BCA technical regulations,
- demonstrating compliance with BCA technical regulations, and
- compliance with administrative provisions. (sub. 6, p. 28)

The Commission notes that the COAG RIS requirements were recently strengthened (COAG 2004) to, among other changes, make it clearer that before a RIS can be assessed as adequate, it must include an assessment of compliance costs. The following additional guidance was also included:

A Regulatory Impact Statement should provide quantitative data on regulatory compliance costs, including information about the number and type of businesses or individuals affected, and the likely financial (and other) impacts on those affected. Compliance costs can include additional paper burden costs, additional staffing, licence fees or charges, external advice, transport and/or restrictions on competition. Regulatory Impact Statements should also give full consideration to ways of minimising such costs. Where quantitative data about such costs are unavailable, a qualitative assessment should be provided; (COAG 2004, p. 31)

BPIC (sub. 23, p. 65) highlighted the importance of considering maintenance obligations in any impact assessment.

The Australasian Fire Authorities Council (AFAC, sub. 28, p. 8) and the Fire Protection Association (FPA) Australia (sub. DR70, p. 7) called for a fuller range of direct and indirect socio-economic *consequences of fire* to be considered when regulatory impact assessments are undertaken. AFAC submitted that this should be based on a 'Total Cost of Fire' concept and include the following consequences:

- death and injury
- physical damage to buildings and contents
- consequent loss of production, loss of sales, goodwill and so on

-
- administrative costs associated with insurance
 - provision of fire response
 - risk prevention measures. (sub. 28, p. 8)

Need for more explicit risk analysis

Some participants expressed the view that changes to the Code and standards were being made without adequate risk assessment.

Risk assessment is a means of analysing the risk of an undesirable event occurring and the consequences that are liable to arise if it does occur. Risk analysis is an important tool for determining if regulation is justified and/or appropriate. The COAG Principles and Guidelines (COAG 2004, p. 23) state that a risk assessment for proposed regulation would appraise:

- the current level of risk from an identifiable source;
- how the proposed measures would reduce the risk;
- whether the proposed measures are the most effective available to deal with the risk; and
- whether there is an alternative which would result in greater overall benefit to the community.

AEA submitted that ‘COAG good regulation principles should be applied more rigorously’ and in particular ‘risk management should be applied more broadly and the full analysis from it detailed in regulatory impact statements’ (sub. 44, p. 10).

And the Tasmanian Building Regulation Advisory Committee (BRAC) find that:

Generally the RIS process is effective and adequately used for changes to the BCA, however, ... there are some difficulties in the system in assessing costs related to health and safety issues. Risk assessment would be more appropriate for a lot of health and safety issues rather than cost assessment. (sub. 29, pp. 6–7)

Rather than an alternative to cost benefit analysis, a risk assessment should form a central element of regulatory impact analysis, wherever significant health and safety issues are under consideration.

Ex post reviews

The Commission endorses BPIC’s recommendation that, at some reasonable time after the implementation of a regulatory proposal, the RIS be reviewed and the validity of the original proposal and assumptions assessed in light of actual

outcomes. This is consistent with the regulatory best practice principles set out in chapter 3. BPIC stated:

Regular review is needed to ensure the objectives of the regulatory intervention have been achieved including what if any unintended consequences may be emerging, the nature and level of compliance and other implementation/compliance issues. This will assist in improving the overall design and utility of the RIS for the ultimate benefit of the community. (sub. 23, p. 54)

FINDING 8.1

The ABCB has a relatively good record of compliance with Regulatory Impact Statement requirements, but there is scope for further improvement. It is important for good regulatory systems that the RIS requirements are rigorously applied for BCA amendments.

RECOMMENDATION 8.1

The ABCB should continue to pursue improvement in its use of Regulatory Impact Analysis, drawing on the advice of the Office of Regulation Review.

RISs for local government building requirements

Concerns have been raised about the imposition of building requirements by local governments through planning regulations, that are additional to and/or inconsistent with BCA requirements. In chapter 6, the Commission discusses this trend and its implications for the achievement of the IGA objective of national consistency and questions the appropriateness of local governments implementing their own requirements in areas covered by the Code. To the extent that this practice continues, however, any building requirements that impose substantial costs need to be justified and therefore should be subjected to a suitably rigorous assessment of impacts.

Referenced standards

The BCA, directly or indirectly, references several hundred building-related Australian Standards developed by Standards Australia International (SAI). The BCA also references certain other technical documents, including Joint Australian and New Zealand Standards, International Standards, American Society for Testing and Materials Standards, CSIRO standards and industry-based documents.

These standards provide detailed technical specifications for the building industry and form the basis for deemed-to-satisfy provisions in the Code. The Building

Codes Committee (of the ABCB) needs to approve any new standard or referenced document before it can be referenced in the BCA.

SAI (see box 8.2) is an independent not-for-profit public company. A Memorandum of Understanding with the Australian Government recognises SAI as Australia's peak non-government standards-writing body. SAI and the ABCB have also signed a Memorandum of Understanding (MoU) (ABCB 2003e) to ensure close cooperation in the development of Australian Standards referenced in the BCA.

Recently the ABCB, in conjunction with the State and Territory Governments, has developed a Protocol (box 8.3) for the development of BCA referenced documents more generally (ABCB 2004d). It specifies procedures for the various stages of document development and also the principles to be applied to the preparation and drafting of documents.

Further, as part of a broader ongoing project to ensure standards/BCA alignment, the ABCB is progressively seeking to incorporate into the BCA 'public policy matters' contained in referenced documents:

It has been determined that the appropriate location for public policy matters is in the BCA rather than in technical standards. This project involves identification of public policy in existing standards and facilitating their review and transfer to the BCA. (sub. 50, p. 8)

A number of issues and concerns have been raised in relation to the development and referencing of standards. These are discussed below.

Committees and consultation process

Australian standards are developed by technical committees established by SAI. These committees work towards consensus.

Some participants submitted a positive assessment of SAI's committee structure and processes:

... the current process employed by Standards Australia meets international code making requirements for a balanced representation on the various committees involving knowledgeable persons to ensure the technical content is accurate and well based. (ICA, sub. 38, p. 9)

... Standards Australia provides the best and only accountable mechanism for preparation of technical standards for the building and fire industry. The consensus approach of Standards Australia with committees representing a wide range of stakeholders is the best model available. It is able to harness a large volunteer effort of industry specialists. ABCB working in alignment with Standards Australia is FPA AUSTRALIA's preferred best model. (FPA Australia, sub. DR70, p. 4)

Box 8.2 Standards Australia International

Standards Australia International (SAI) is recognised by the Australian Government as the peak non-government standards organisation.

SAI is legally constituted as a company limited by guarantee. Over 70 major stakeholder organisations constitute the Council of Members. These members have no equity nor any legal right to equity. As a not-for-profit organisation under the Corporations Act, any surplus cannot be distributed and thus goes back into the business to fund the development of Standards and related products.

SAI's mission is to:

...Excel at meeting national needs for contemporary, internationally aligned Standards which enhance the nation's economic efficiency and international competitiveness, and fulfil the community demand for a safe and sustainable environment. (sub. DR81, Attachment 3, p. 7)

In a major reorganisation, the commercial activities of the former Standards Australia were split into a separate company, SAI Global, and that company was then floated on the Australian Stock Exchange in December 2003. SAI has retained a 40 per cent share holding in SAI Global. SAI (sub. DR81) highlights the following benefits of the sale of the commercial operations:

... to help ensure that the commercial risk to the core business of standards development was minimized and the funding of the standards development process was secure well into the future. (sub. DR81, Attachment 3, p. 4)

The risks of conflicts of interest for Standards Australia staff and committee members following the sale is reduced, given Standards Australia no longer directly relies upon income generated from standards certification activities. (sub. DR81, Attachment 3, p. 7)

SAI retains ownership of the intellectual property of the Standards and other products it develops. Publication and delivery is managed by SAI Global under the terms of a 15 year Publishing Licence Agreement (PLA). Under the PLA:

- SAI is required to regularly review and revise its collection of Australian Standards so that not more than 30 per cent are over 10 years old, and use best endeavours to produce new materials that in any year corresponds to at least 7 per cent of current Australian Standards;
- average price increases are generally to be based on CPI plus 2 per cent per annum, capped at CPI plus 5 per cent per annum (subject to cost increases); and
- SAI Global pays SAI a royalty of 10 per cent of the net revenue received from the sale of licensed material and an additional bonus royalty of up to 15 per cent (decreasing over time) in relation to licensing of new material.

An Australian Government grant partly funds SAI's participation in international and regional standardization activities. SAI officially co-ordinates Australia's representation and interests in international standards development. It is Australia's representative on the International Organization for Standardization (ISO), the International Electrotechnical Commission (IEC), and the Pacific Area Standards Congress (PASC).

Sources: Sub. DR81 and SAI 2004a.

Box 8.3 Protocol for Referenced Documents

The Protocol provides rules and sets out policies, objectives and principles for the development and/or the revision of BCA referenced documents, including:

- ABCB's objective is to provide transparency in process and encourage competition among organisations that wish to prepare referenced documents.
- ABCB's policy is to reference only documents that reflect current best regulatory practice and provide standards acceptable to government and the community.
- Referenced documents are to be produced, revised or amended only where there is a 'clearly demonstrated need' (must comply with COAG Principles and Guidelines).
- A proposed new or revised reference document may be subjected to a RIS. The proposer may be required to supply information on impacts on the community, in terms of costs and benefits, as input to the RIS process. At the commencement of the public comment period, estimates of cost/benefit shall be provided to the ABCB — ABCB will evaluate whether a RIS may be necessary. If the document changes significantly in response to public comment, the need for a RIS will be reassessed. The RIS, if required, will be conducted on the Final Draft.
- Protocol also applies to documents referred to in a BCA referenced document.
- To facilitate free trade and to avoid duplication, the ABCB has a policy of referencing international or regional documents in preference to national documents, where they are available and suitable. BCA referenced documents must satisfy the provisions of the WTO TBT Agreement and the CER Agreement with NZ.
- Consistent and transparent development processes are to be used and the ABCB and State and Territory Building Control Administrations are to be fully informed about the progress of the development of the document. Minimum public comment periods are specified. For revisions to an existing referenced document, a summary of changes shall be provided with the consultation draft.
- The Development Committee shall have membership that is representative of relevant parties (ABCB reserves the right to appoint a representative).
- ABCB is to examine the proposed document:
 - at the proposal stage;
 - prior to the consultation stage;
 - prior to the pre-publication stage (including record of comments received and summary of changes from consultation draft); and
 - prior to BCA referencing and publishing.
- Documents shall be consistent, clear and accurate, avoid use of uncertain terms such as 'adequate', and take account of available technology.

Source: Based on ABCB 2004d.

However, concerns have also been raised.

The first of these related to ABCB participation on SAI committees. It is intended that the ABCB participate directly in the technical committees involved in the development of standards referenced in the BCA, including voting to approve the standards for publication. However, BPIC has suggested that, in practice, ABCB's participation is severely constrained:

The ABCB have one full time standards representative and approximately 11 part time people, responsible for ABCB involvement in 200 BCA primary standards and all associated sub standards. This easily equates to over 700 documents.

The ABCB represents the States and Territories on standards committees nominated in the BCA and accordingly have a direct responsibility to ensure community/stakeholder interests are achieved. Other obligations include drafting to align with legislative protocols, least cost solutions, balanced input from experts and other commitments related to the Inter Government Agreement objectives.

Unfortunately, these standards are continually evolving and it is impossible for the ABCB representatives to keep fully informed of changes to these documents exposing the BCA to possible corruption due to poorly considered reference standards. (sub. 23, p. 46)

While industry representation on SAI committees potentially contributes substantial expertise, concerns have been raised about possible conflict of interest:

... committee membership will often include representatives who have a commercial interest in the outcome of the project. Consequently, conflict is inevitable in such circumstances. (HIA, sub. 6, p. 24)

There has ... been concern by some local stakeholders that Standards committees (developing new standards) are often dominated by vested industry interests and by the eastern States. The level of public accountability is therefore questionable. (South Australian Government, sub. 36, p. 5)

The consensus voting model used by SAI exacerbates this problem since an industry, or other interest group, is effectively able to exercise a veto power and can hold out for the outcome that is beneficial to their interests. Although occasionally consensus may be deemed to have been achieved where there are outstanding negative votes, a serious practical limitation is that this deeming can only occur where a minimum 67 per cent of those eligible to vote have voted affirmatively; a minimum 80 per cent of votes received are affirmative; and importantly '*no major interest involved with the subject of the standard has collectively maintained a negative vote*' [emphasis added] (SAI 2004a).

Some participants also raised the concern that standards committees may not be utilising the best expertise because of SAI's policy of not paying for non-government representatives to participate. Costs in travel, accommodation and time

away from normal responsibilities can mean the most appropriate representative is not always able to participate:

... committee representation is voluntary and members must meet all costs involved in attending meetings. While many highly qualified personnel contribute significant effort to this process, it is sometimes the case that committee members are those that have the money or the time to attend. This outcome is inappropriate when the importance of expert contribution to the standards writing process is considered. (HIA, sub. 6, p. 24)

There is a concern by many in the industry that the Codes and Standards being developed are not reflective of current practice or desired practice, as many industry practitioners cannot afford to volunteer their time to be represented on Standards and Code committees.

The ability for industry volunteers to be partially paid may reduce these concerns and encourage more practitioners to be involved. (Arup Fire, sub. 15, p. 4)

Finally, some participants called for broader community participation in the standards development process. The South Australian Government submitted:

... it could be argued that industry is too heavily represented and the expectations of the broader community are not sufficiently sought or understood. (sub. 36, p. 13)

Are some referenced standards set too high/low?

While it may be appropriate for standards developed for voluntary adoption to be set at a higher or even 'best practice' standard, it is generally not appropriate, on cost-benefit grounds, for referenced standards that become a mandatory minimum standard to be set too high. HIA expressed the concern that SAI documents:

... are not necessarily prepared on the basis of regulating minimum standards and that there appears to be a trend toward "best practice" creeping into draft documents. (sub. 6, p. 30)

MBA called for greater scrutiny and justification of proposals for increased standards:

We believe that there should be greater onus put on the proponents for change to demonstrate that the existing code or standards are either inadequate or otherwise deficient in the area of health, safety and amenity. ... and that [the ABCB should] be given authority to more rigorously contest such claims. (sub. 24, p. 3)

At the same time, some consider that standards have at times been set too low. In its submission to the Campbell Inquiry, NATSPEC suggested that there is a more general tendency for low standards. NATSPEC stated:

Standards Australia committees are heavily weighted towards manufacturing and construction interests. We believe this weighting tends to result in standards settings which are the lowest acceptable ... (NATSPEC 2002, p. 4)

Until amendments were made to the Code in 2003, sound insulation standards referenced in the Code were below equivalent standards set by other developed countries³, and the BCA requirements were widely recognised as being inadequate relative to community expectations. However, reinforcing the difficulty associated with setting the appropriate level of stringency, some Australian jurisdictions have chosen not to adopt the new standards because they consider that they are not cost efficient.⁴

A rigorous RIS process fully integrated into the standards development process (see discussion below) helps to ensure that standards are set at a level that maximises net benefits to the community as a whole. The preparation of a RIS also ensures that there is a transparent record of the justification for and thinking behind a regulation. AEA submitted that more needs to be done to ensure transparency in the process for determining technical regulations:

It should be possible for anyone to question the foundations of a technical regulation at any time. All too often industry persists with compliance to a prescriptive technical regulation, not really understanding the real technical reasons for it. A new imported technology that does not comply will often be the trigger to questioning the requirements. All too often we are lucky that some person on a technical committee many years ago is still alive to explain the basis for it and we generally find that the regulation was poorly formulated, based on a limited view of the technology of the day. (sub. 44, p. 9)

Alignment with international standards

Australia has signed the World Trade Organization (WTO) Technical Barriers to Trade (TBT) Agreement which requires that members consider the adoption of international standards when formulating their own standards.⁵ However, while the TBT encourages the adoption of international standards, members are still free to apply their own standards, particularly when such international standards or relevant parts would be ineffective or inappropriate (for instance, because of fundamental climatic, geographical factors or fundamental technological problems). The Asia Pacific Economic Cooperation's Sub-Committee on Standards and Conformance also seeks to remove technical barriers to trade.

³ For example, Great Britain, Germany, Denmark and New Zealand.

⁴ Currently, Queensland, Western Australia and the Northern Territory have not adopted the new BCA provisions. The ABCB advised the Commission that 'Queensland and Northern Territory believe that the "lifestyle" in their jurisdictions (where people tend to have the windows open most of the day), suggests it would be impractical to sound insulate walls and floors as the sound will pass through the open windows' (ABCB, pers. comm., 25 June 2004).

⁵ Article 2.4 of the TBT Agreement.

Under the MoU between the ABCB and SAI, standards committees are asked to maximise the use of accepted international standards when developing standards to be referenced in the Code (ABCB 2003e). Further, SAI's Standardization Guide SG-007-1 *Adoption of International Standards*, states:

The policy of Standards Australia is to base Australian Standards on International Standards to the maximum extent feasible and to use the World Trade Organization (WTO) Agreement on Technical Barriers to Trade ... as a benchmark. ...

The immediate consequence is that Australian Standards should be adoptions of International Standards, unless there are good reasons to the contrary. (SAI 2004b)

In relation to referenced standards more generally, the *Protocol for the Development of BCA Referenced Documents* (see box 8.3), states:

To facilitate free trade and to avoid duplication, the ABCB has a policy of referencing international or regional documents in preference to national documents, where they are available and suitable. (ABCB 2004d, p. 4)

The Protocol also requires that any proposed BCA referenced document must satisfy the provisions of the WTO TBT Agreement and the Closer Economic Relations (CER) Agreement with New Zealand (p. 4).

Greater alignment, where possible, of Australian standards and building regulation with international standards can facilitate competition and trade, generating higher productivity for the building industry and potentially greater choice and lower prices for consumers. Importantly, however, any decision to align with an international standard must be based on a demonstration that there are net benefits to the Australian community as a whole. Some international standards may be set too high or too low, or otherwise be inappropriate for adoption in Australia.⁶ Further, there would generally be no barrier to a local producer voluntarily designing and manufacturing products to be compliant with higher overseas standards.

Submissions supported alignment with international standards where appropriate. For example, Ronald Swane stated:

I fully support the adoption of ISO standards as well as British and/or European standards by the BCA when this is appropriate and would enable further export opportunities. (sub. 12, p. 2)

And the National Fire Industry Association (NFIA) considered that:

⁶ For example, excessive costs might be imposed on the industry (and passed on to consumers) if building standards are aligned with an overseas standard that is higher than is necessary to achieve minimum health, safety and amenity outcomes.

The adoption of ISO standards where appropriate will assist local manufacturers to export product rather than direct the resources to the development of a product specific for the Australian market only, which is small and therefore products cannot be manufactured cost effectively. (sub. 3, p. 3)

However, appropriate international standards are not always available for Australian standards committees to draw on. In its *Building for Growth Report*, the then Australian Government Department of Industry, Science and Resources (DISR 1999, p. 63) noted that ‘... the development of international standards for building and construction has been poor’. The Report suggests that one barrier to the development of international standards in the building area has been the significant differences between European and North American standards. Further, where International Organization for Standardization (ISO) standards have more closely reflected building practices in Europe, they have sometimes not been appropriate for the Australian environment.

FPA Australia submitted that its experience on many ISO committees suggests that the adoption of ISO Standards for fire *products* works well, but ISO Standards for *installation and maintenance of systems* in buildings are not useful:

The reason is that differing local regulations, building practices and related standards on wiring, plumbing and construction in each country mean that such ISO Standards end up being very generic and often refer to national standards anyway. In such instances they are not of a form suitable for inclusion in the BCA. (FPA Australia, sub. DR70, p. 4)

Nevertheless, some have claimed that even where well established, suitable overseas standards exist, they have not always been adopted. AEA suggest, in relation to the Draft *Access to Premises Standard*, that ‘international standards have largely been ignored’:

There is certainly no reference to major International Standards in any of the available Premises Standard documentation. If they were considered and rejected, then the RIS should have stated that and explained why. (sub. 44, p. 22)

However, the ABCB has informed the Commission that:

The ABCB will always consider referencing International standards in the BCA where they provide the technical detail required.

... it is intended that the Premises Standard and revised BCA will reference an Australian Standard for lifts that allows the use of a European Standard (AS 1735.1 – Appendix A). (ABCB, pers. comm., October 2004)

While SAI (sub. 27, p. 3) indicated that some 11 per cent of Australian Standards in the building area are harmonised with international standards, only a small proportion of these are referenced in the BCA. The ABCB Chairman stated:

At present, a limited number of international standards are referenced in the BCA, and such standards are not widely available for the building and construction sector. (sub. 4, p. 47)

Although many standards referenced in the BCA are Australian Standards, in many instances they are based on International Standards. In some cases, International Standards are reprinted as Australian Standards, which are then referenced by the BCA (ABCB, pers. comm., October 2004).

The ABCB Chairman's submission notes that the recent introduction of the *Protocol for the Development of BCA Referenced Documents* (see box 8.3) may facilitate further adoption of international standards. The Protocol is to apply to any organisation that produces standards to be referenced in the BCA.

Recognition of overseas standards should also be considered where appropriate and where harmonisation is not feasible. In many cases, a number of suitable national (ie specific countries) or regional standards exist that, although different in their specification and/or design, can be shown to deliver broadly equivalent (or at least the required minimum) performance outcomes. In such cases, adopting the mutual recognition principle and allowing conformance with any of the selected national or regional standards as sufficient to demonstrate compliance with a BCA requirement, could be the most effective and efficient solution. The RIS process provides the appropriate framework for evaluating, on a case-by-case basis, the relative costs and benefits of alternative strategies.

Australian representation at international building standards' forums

As noted above, SAI receives funding from the Australian Government to 'officially co-ordinate Australia's representation and interests in international standards development' (SAI, sub. DR81, Attachment 2, p. 3). More specifically:

... SAI is the Australian member of the International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC) ... SAI's role is to process the work of ISO and IEC. Involvement with ISO and IEC takes place at two levels, policy and technical participation. Policy issues related to ISO and IEC are the responsibility of the Standards Development Board. ... Detailed technical involvement in any given international standard is the responsibility of the corresponding SAI Technical Committee, including endorsing delegates from within SAI technical committees to attend international meetings to put the Australian point of view. (sub. DR81, pp. 1-2)

BPIC identified the importance of participation in such forums:

These forums are focused on the achievement of international standardisation and mutual recognition arrangements. These arrangements, the associated debate and

related issues are critical to effective government policy regarding national and international trade. (sub. 23, p. 48)

The concern has been expressed that a consequence of allowing SAI to coordinate Australia's representation in such forums could be that knowledge and information gained through participation may not be shared to the extent desirable with Australian governments and the community. Graeme Hunt — ABCB Board Member (Tasmania) — commented that, to date, ISO standards 'seem to come from a process that has limited involvement of the building regulators from Australia' (sub. DR83, p. 4).

As noted by SAI, the Standards Development Board (SDB) has overall responsibility for policy matters related to ISO and IEC standards development. The SDB membership is drawn from government, industry, consumer and other community groups. Currently, the Executive Director of the ABCB, a senior officer from the Australian Government Department of Industry, Tourism and Resources and a Commissioner from the Australian Competition and Consumer Commission are amongst the government members (SAI, pers. comm., 11 November 2004).

While the SDB has broad government and community representation, it does not have direct involvement in decisions about Australian representation at international standards technical committee meetings. Individual SAI committees are responsible for endorsing delegates from amongst their membership. The nominated delegate could be from industry, government (including potentially an officer from the ABCB), or from academia/the research community. Delegates selected from within SAI technical committees may not always be well placed to present Australia's position in a completely independent and non-biased manner.

Although SAI is no longer directly involved in the sale of Australian Standards, it has a substantial equity in SAI Global and benefits from increased sales, through royalties and dividends. Notwithstanding that SAI has a commitment to serve the Australian community, there could be the potential for a conflict (or at least the perception of a conflict) between the interests of SAI and its various committee members involved in developing 'Australian Standards' and the pursuit of Australia's national interests through participation in international meetings.

BPIC (sub. 23, p. 48) suggested that the role be performed by the ABCB with respect to international building and construction code writing bodies. MBA considered that the ABCB 'should be part of the development of international standards with SAI' (sub. DR82, p. 9) and, similarly, the Tasmanian BRAC (sub. 29, p. 6) thought it appropriate for the ABCB to represent Australia on such committees 'as well as or in replacement of Standards Australia representation'.

The Australian Government should examine the appropriateness of a non-government entity (Standards Australia International) coordinating Australian representation in international standards' forums and assess the merits of the ABCB having a formal role, in conjunction with SAI, for building and construction standards.

Cooperation with New Zealand

SAI and the ABCB have maintained strong links with New Zealand. (The ABCB's international liaison activities, more generally, are discussed in chapter 9.) The ABCB Chairman stated that the Board:

... has had success with aligning BCA referenced standards with New Zealand with the support and cooperation of Standards Australia and New Zealand authorities. About 20-25% of all referenced documents are joint with New Zealand. (sub. 4, p. 47)

The New Zealand Ministry of Economic Development stated that greater coordination of regulatory regimes between New Zealand and Australia: '... reduces costs and increases the effectiveness and efficiency of regulatory controls in the Trans-Tasman market for building' (sub. 5, p. 6).

Standards New Zealand and SAI signed the *Active Cooperation Agreement (ACA)* in 1992 and have worked closely in the development of joint standards. However, submissions to the Commission's recent Review of Mutual Recognition Schemes (PC 2003b, pp. 116-117) suggested that the ACA was not as successful as anticipated. SAI recently informed Standards New Zealand that it did not wish to renew the ACA (Standards NZ 2004) and a memorandum of understanding has now been negotiated to replace the ACA (sub. DR81, Attachment 3, p. 8).

NFIA raised concerns relating to progress in joint standards development:

The endeavours to produce AS/NZ standards seem to be faltering. The lack of progress in this area should be a concern, primarily to the NZ government, but could cause immeasurable difficulties for the Australian community if products developed for NZ to different (*lesser?*) standards are able to be sold in the Australian market without meeting the Australian Standard requirements. (sub. 3, p. 3)

Under the Trans-Tasman Mutual Recognition Arrangement (TTMRA) between Australia and New Zealand, any building products that meet the regulatory requirements in one jurisdiction can be lawfully sold in the other. However, as is discussed in chapter 9 (in relation to national product certification), this does not guarantee that the products can actually lawfully be *used* in that other jurisdiction.

A Trans-Tasman Building Regulatory Reform Council has recently been formed with the purpose of fostering a common understanding of the building regulatory environment and to promote information exchange. Ultimately this should lead towards a more consistent building regulatory environment between Australia and New Zealand (see box 8.4).

The Commission considers it important to maintain a joint standard setting capability between Australia and New Zealand. Even where harmonisation of standards is not considered appropriate, there are benefits in working cooperatively, sharing information and generating greater understanding of the basis for any outstanding differences.

Box 8.4 Trans-Tasman Building Regulatory Reform Council

The Trans-Tasman Building Regulatory Reform Council has been established to enhance cooperative efforts in building regulatory reform. The Council comprises representatives of the ABCB and the New Zealand Building Industry Authority. The Ministry of Economic Development and the Australian Department of Industry, Tourism and Resources are also involved. The inaugural meeting was held in March 2004 and future meetings of the Council will be held on a quarterly basis. The principal objectives of the Council are to foster a common understanding of the Trans-Tasman regulatory environment and to achieve a more open environment of commerce in building design and construction. Some of the areas that it is specifically seeking to work on are:

- ensuring the development and implementation of product certification schemes in Australia and NZ that are consistent, as far as practicable;
- promoting consistency in the education, training and accreditation of industry professionals employed to support the Australian/New Zealand building regulatory regimes;
- promoting the pooling of resources to aid research and development of commonly-needed components of performance-based building regulatory systems;
- providing a forum promoting a common understanding of, and a framework for, further development of performance-based building regulatory systems; and
- promoting closer trade in goods and services within the building and construction industry.

Source: BIA New Zealand 2004.

Use of voluntary standards in legal proceedings

Several participants expressed concerns about voluntary standards (ie, standards that have not been incorporated into mandatory requirements) being used as the basis for establishing civil liability in legal proceedings. Although these standards

are only of an advisory/guidance nature, sometimes they are being used as a benchmark for assessing compliance:

Historically, compliance with the applicable regulatory regime and specified contractual matters provided certainty, but no longer is this the case. Decisions of various judiciaries are requiring the industry to comply with undefined documentation, particularly Australian Standards, even though these documents are not included within the BCA or contracts. Consequently, the industry finds itself in a position whereby it is exposed to constant uncertainty as to what is legally required to be done.

In this context, it could be interpreted that the industry must comply with every Australian Standard that could potentially be found by the judiciary to be related to a specific project. This is an inappropriate outcome that should be remedied ... (HIA, sub. 6, p. 25)

This is not in the best interest of the industry, the community or government to have practitioners being sued for not being aware or familiar with amended Australian standards not called up or referenced by the BCA. (MBA, sub. 24, p. 7)

Such voluntary standards have not been scrutinised for costs and benefits, yet take on the status of de facto regulation. (BPIC, sub. 23, p. 31)

This issue has previously been considered by the Interdepartmental Committee on Quasi-regulation. The Committee concluded that:

... the use of Australian Standards as an element in determining negligence was a logical extension of the use of a range of evidence by the courts in such cases. It noted that such standards could be used as a defence, as well as in establishing proof, of negligence. Consequently, the Committee considers that no further action is warranted at this stage, but that it would be worthwhile monitoring this aspect of standards because if it becomes more widespread it may have implications for how standards should be developed and applied. (CICQ 1997, p. 47)

The Commission recognises that the use of voluntary standards in legal proceedings creates some uncertainty for manufacturers and building practitioners about their legal obligations. However, it may be appropriate in the particular circumstances of a case, for courts and tribunals to refer to such materials in determining what is 'reasonable' or representative of general industry-wide practice. It has not been possible, in the context of this study and based on the limited evidence in submissions addressing this issue, to determine the extent of any problem nor to suggest an appropriate response, if any. While the concerns that have been raised would indicate that the issue warrants further examination, given the wider implications, it would seem to be a matter for legal reform bodies, rather than for the ABCB.

Another more general concern is the widespread confusion amongst consumers and many builders about the status of SAI and Australian Standards. There is, for example, a continuing misconception that SAI is a government body. Ongoing

ABCB education strategies should address this issue and continue to emphasise the distinction between mandatory BCA requirements and voluntary best practice standards.

Impact analysis and good process

As noted above, in the general discussion of regulatory impact analysis, a RIS prepared as early as possible in the regulation development process, maximises the opportunity to properly assess the relative merits of alternatives. In the case of referenced standards, the RIS process should be commenced as soon as the standard is considered to be an option.

Formal impact analysis can help address some of the concerns raised by participants in relation to the standards development process by ensuring change is justified and by providing a rigorous basis for determining:

- when standards should be aligned with international standards; and
- the appropriate level of a standard (in terms of performance or stringency) or the degree of prescription that would be appropriate.

The MoU between Standards Australia and the ABCB states that:

The ABCB, through its representation on the relevant Technical Committees, may comment during the initial Committee circulation of a proposal for a new project, prior to submission to the Joint Technical Management Group, and the relevant Standards Sector Board. Where such a proposal is for a revision of, or amendment to, an existing primary referenced standard, then it will include identification of major changes required and the necessity for and impact of such changes. SAI will allow the ABCB a period of 6 weeks for the evaluation of such new projects ...

The approval process for a new Australian Standard referenced or likely to be referenced in the BCA will have regard to the balance of costs and benefits involved and where appropriate a cost/benefit analysis will be undertaken.

If considered necessary, the ABCB will undertake a regulatory impact statement for new standards or new editions of standards to be referenced in the BCA. Where possible SAI committees will identify costs and benefits associated with the development or revision of a standard to assist the ABCB with regulatory impact statements. (ABCB 2003e, pp. 4–5)

However, the MOU does not provide clear enough guidance on when impact analysis should be undertaken. Use of the terms ‘where appropriate’ and ‘if considered necessary’ create uncertainty. In practice, for any significant new standards or new editions of standards to be referenced in the BCA, the ABCB would normally undertake any necessary impact analysis as part of a broader

evaluation of proposed Code amendments. But this occurs relatively late in the process.

Participants have raised concerns about the failure of SAI to undertake formal impact assessments:

SAI should undertake impact assessments for each new code and amendment and the ABCB should be required to play a proactive role in both the development and impact assessment of standards in parallel and in conjunction with SAI ... (BPIC, sub. 23, p. 47)

... if SAI undertook independent and credible impact assessments prior to publishing their documents ... [this] would provide a degree of confidence in the merits of the proposed new or revised code. The failure of the SAI to complete this process is significant for a number of reasons not the least of which is the fundamental issue of whether the change is necessary and the potential economic implications if other alternatives are not explored. (BPIC, sub. 23, p. 46)

SAI do not prepare appropriate impact assessments of changes to existing standards.

In the recent past, HIA has unfortunately had to oppose the further development of three draft standards on the basis that there has not been “*a clearly demonstrated need*” for the proposed changes. (HIA, sub. 6, p. 24)

The recently published *Protocol for the Development of BCA Referenced Documents* (see box 8.3 above) was developed partly as a response to concerns from industry about the standards-making process and the proliferation of standards. The ABCB Chairman (sub. 4, p. 47) stated that the Protocol will strengthen the rigour of standards being mandated in the BCA. The Tasmanian BRAC were of the view that the Protocol (together with the MOU between SAI and the ABCB) ‘have increased the quality of standard development and the basis on which they are made’ (sub. 29, p. 5).

The Protocol is welcome in that it restates a commitment to good process. However, it does not go far enough in stating a clear expectation that:

- RISs will be prepared for any proposed standard that may have non-minor impacts;
- the significance of impacts (and therefore whether a RIS is required) will be determined in consultation with the ORR; and
- where a RIS is required, it should be prepared early in the process (the Protocol (see box 8.3) indicates that RISs will be prepared on the basis of Final Draft Standards).

With the exception of new proposals or changes that are very clearly non-consequential, the onus of proof should be on establishing why a RIS is not justified rather than, as currently seems to be the case, demonstrating why one is required.

As a non-government organisation, SAI is not formally required to comply with RIS requirements — these requirements are obligations imposed on government agencies and intergovernment bodies. This is appropriate when SAI is developing voluntary standards. However, where standards are referenced, governments need to have an assurance that they have been subjected to rigorous impact analysis. HIA stated:

If SAI is to be considered to be [a] standards setting body then it should be bound to comply with the principles applied to other standards setting bodies as contained in the COAG document *Principles and Guidelines for National Standard Setting and Regulatory Action by Ministerial Councils and Standard-Setting Bodies*. (sub. 6, p. 24)

RECOMMENDATION 8.3

The Memorandum of Understanding between Standards Australia International (SAI) and the ABCB should be re-negotiated and the Referenced Documents Protocol revised to provide for a clearer requirement for RIS-type analysis to be undertaken at an early stage in the development of standards that are expected to be referenced in the BCA and that are likely to have non-minor effects.

BPIC (sub. 23, p. 47) notes that an advantage of having a RIS developed in parallel with SAI's standards development process may be that it would 'minimise the need for further delays' associated with the ABCB preparing the RIS at the end of the process. Concerns about such delays are part of the discussion later in this chapter.

Consultation

One of the ten objectives for the Board set out in the IGA is 'to undertake effective consultation and liaison with industry to achieve transparency in the reform process'. Transparency is a broad concept, with consultation being just one facet. Another important aspect is transparency in communicating the Code. This includes accessibility, style, plain language etc. Access to the Code is discussed in the next section, while the other aspects of transparent communication are covered in chapter 5.

The Board itself, through its membership representing different industry and government interests, is an important consultative mechanism. The network of technical and advisory committees, including those involved in the development of standards, also represent key consultative mechanisms. These advisory committees all have Government, industry and community representatives involved in their work. The ABCB Chairman pointed out that:

Through these avenues, the ABCB obtains input from government and industry stakeholders as well as advice and assistance from building professionals, research

communities, industry peak bodies, local government, special interest groups, and the community, on a wide range of strategic, policy, technical, administrative and societal issues. (sub. 4, p. 8)

In addition, building code reform proposals are subject to extensive open public consultation processes. For more significant reforms, interested parties also have the opportunity to comment on the detailed impact analysis prepared in compliance with the Board's Economic Evaluation model and the COAG RIS requirements. The analysis of the costs and benefits of the proposals and alternatives contained in the RISs can contribute greatly to the transparency of the reform process (see above).

The ABCB's consultative processes have been praised for being open and transparent:

The level and type of consultation undertaken by the current Board is generally transparent. ...

HIA consider that there are adequate mechanisms in place for anyone to offer comment on ABCB regulatory proposals. (HIA, sub. 6, pp. 25–26)

By the ABCB having direct links with State and Territory Administrations ... document[s] are circulated widely within industries and to State and Territory Building Advisory Committees. This process is fully transparent and appropriate and provides for interested parties not represented on the ABCB or its Committees to provide input into the development and reform of the BCA. (Tasmanian BRAC, sub. 29, p. 6)

... the consultation process for major reform initiatives including advertising in major papers and easily accessible internet access to proposed reform papers is effective and provides sufficient means for parties outside the advisory committee process to comment. (BPIC, sub. 23, p. 49)

However, some concerns about consultation processes were also raised. Various submissions suggested that ABCB processes do not adequately facilitate consumer and broader community input:

... the major focus is on building and structural industry players, and not occupiers of buildings ...

Therefore consideration should be given to more robust community consultation processes with greater consumer input ... (Queensland Government, sub. 41, p. 5)

Much of the work conducted by the ABCB does not reach all interested parties. (ICA, sub. 38, p. 9)

... processes invariably target key industry stakeholders. It is suggested that some market research in the broader community on key issues would enhance outcomes. (South Australian Government, sub. 36, p. 3)

Blind Citizens Australia requested information about proposed changes to the Code to be provided in formats that are accessible to people who are blind or vision impaired so that these persons can more effectively contribute to the development of the Code:

This information should be provided at no cost and should include as much detail from the Building Code as is required to competently comment on the proposed changes. (sub. 20, p. 11)

The Disability Council of NSW found consultation to be ‘minimal’ in relation to its own experience of the development of the Draft Disability Standards for Access to Premises. The Council submitted:

Council is extremely concerned that at no point in time was the merits of the action being proposed discussed with the affected community (ie people with disabilities).

... the level and type of consultations are inappropriate. ... (sub. 26, p. 15)

At the same time, there is evidence that some private and government stakeholders are being overwhelmed by calls for their input on regulatory proposals. A consequence of this ‘consultation fatigue’ is likely to be a fall in the level of participation in the consultation process and/or a reduction in the quality of feedback. The NSW Government stated:

... the quality of responses from stakeholders is suffering, and sometimes, no responses are being provided at all. Stakeholders recognise that all of the ABCB reforms are important however, according to their resources and agendas, will prioritise themselves.

The ABCB therefore does not always get a true reflection of stakeholder opinions and will not always know whether they are truly meeting stakeholder and community expectations in the development and delivery of their reforms. (NSW Government, sub. 53, p. 8)

A number of factors seem to be contributing to this problem:

- the parallel scheduling of major reform programs
- the length of some of the regulatory documents and impact statements
- the time allowed for public comment may be too short
- the fact that in some cases stakeholders are being consulted more than once on the same issue.

With respect to the first point, the ABCB has an extensive work program and typically several projects are being progressed at any time. For some stakeholders this can mean simultaneous or overlapping calls for input on proposals. The problem was highlighted by the NSW Government:

This situation is often resulting in simultaneous timeframes and deadlines for review, consultation and comment on major reform proposals. This is causing major concerns

and logistical problems for some stakeholders (including State and Territory administrations) who are involved in reviewing and commenting on the reforms and trying to program their implementation, yet have limited resources. ...

The ABCB must not only prioritise its projects according to level of importance, it needs to realise the limitations of stakeholder resources in terms of their ability to respond in a meaningful way, and schedule their programs accordingly. (sub. 53, p. 8)

On the second point, while documents must be comprehensive in terms of the information and/or analysis provided, drafters need to present material as concisely as possible. It helps if the accessibility of the documents is maximised, in terms of structure, plain language, use of summaries, etc as well as ease of transmitting comments to the Board (e-mail, public forums etc) (see chapter 5).

In relation to the third point, some participants consider that consultation timeframes are too short:

Timeframes to review, consult and comment on major reform proposals are in many instances regarded by stakeholders to be insufficient and are not considered to be facilitating due process and proper and meaningful stakeholder engagement and consultation.

In addition, a number of the current and proposed major reforms (e.g. energy, access, sustainability) have significant social and environmental implications, which impact on mainstream government policy consideration and necessitate a “whole of government” response, as well as broad industry and community consultation.

Timeframes to assess and consult on such reform proposals, need to provide for the processes of government and the need for sign off by various levels of government, including sign off by Cabinet. Current timeframes are not facilitating this need and outcome. (NSW Government, sub. 53, p. 8)

... there has been some criticism from stakeholders in South Australia that the timeframes for commenting on proposed changes are too short. (South Australian Government, sub. 36, p. 11)

... a review [is considered necessary] of the consultation process and time frame for industry responses to proposed amendments to the Building Code of Australia through State and Territory industry advisory bodies. (NSW Building Regulations Advisory Council (BRAC) — Industry members, sub. 25, p. 2)

However, a potential implication of allowing a longer time period for comment could be further delays in the process of implementing reforms — although the recent move to annual Code amendments may allow longer comment periods, without major consequences for timeliness of reforms.

With respect to the fourth point, the Queensland Government noted stakeholder concerns about duplication in consultative processes and suggested that consideration be given to improving collaboration between the States and Territories:

... the consultation process [is] not clear, as ABCB undertakes consultation in developing policy proposals at a national level, and [the] State then undertakes further consultation before deciding whether to adopt proposals. (sub. 41, p. 5)

The NSW Government also sees ‘a need to better “co-ordinate” consultation ..., so as to avoid duplication and reduce the likelihood of key and relevant stakeholders being overlooked’ (sub. 53, p. 8).

The Commission endorses AEA’s suggestion that, to improve transparency, submissions/comments submitted on proposed amendments should be made publicly available on the ABCB’s website:

It is important that such information is made more public so that the broader community has opportunity to support ... it or refute it prior to and well after publication. (sub. 44, p. 17)

Such transparency is an important feature of the Commission’s public inquiry process and appears to be widely supported by participants. While there is a risk that with a general policy of publishing submissions some stakeholders will withhold certain information that would otherwise have been provided to the Board, this is unlikely to be a significant concern, because, as with the Commission’s process:

- special provisions could apply for commercial-in-confidence material; and
- although it would be discouraged, certain parts of submissions could, on request, be treated confidentially.

AEA also consider that greater consultation is necessary earlier in the policy-development process:

While broad public consultation regarding the detail has occurred after publication of the draft regulation, not enough has occurred before it. (sub. 44, p. 22)

The NSW Government called for increased consultation at the very early stage of prioritising ABCB projects:

To assist in more efficient and effective project prioritisation, it is considered that greater consultation is required regarding the prioritisation of the ABCB’s projects and their delivery, to ensure that the BCA is able to respond to the contemporary and emerging needs of State and Territory Governments, and the need for State and Territory governments (and local governments) to take action of a regulatory nature outside of the national process, is minimised. (sub. 53, p. 6)

These comments are consistent with the Commission's observations above about the need to better integrate the RIS framework (consultation being a key element) and assessment of alternatives early in the process of considering amendments to the Code. Early consultation is also a best practice principle identified by the OECD (see box 8.5). It is clear that against most of the OECD principles, the ABCB's systems rate quite well. The ABCB should of course continue to be alert to possible improvements.

Further examination of alternative strategies to ensure the widest participation by affected groups, for example consumers, may be appropriate, as well as longer minimum consultation periods for major reforms (although this may have implications for the timeliness of implementation of reforms, discussed below). There may also be opportunities for further enhancement in relation to:

- avoiding unnecessary duplication, by individual jurisdictions, of ABCB consultation;
- streamlining/shortcutting of processes to make consultation for less significant proposals less costly for stakeholders;
- consulting earlier when the opportunity to influence proposals is greatest;
- more reader friendly formatting; and
- the best use of the internet for electronic dissemination of material for comment, public access to submissions and for transmitting feedback to the Board.

However, even with the best designed consultation processes, it is likely that some affected parties will feel that they have not had an adequate opportunity to contribute their views and/or that their input has not sufficiently influenced the eventual reform outcome.

Timeliness of reforms

Several participants expressed concerns about delays in reaching agreement on, and the implementation of, reforms. MBA, for example, indicated that:

Industry is concerned that amendments and changes can take up to three years or longer. (sub. 24, p. 6)

According to MBA, such delays have led to frustrations and a number of jurisdictional agencies have then sought to:

... implement or pre-empt the proposed changes before the BCA into their own jurisdictional area of responsibility and thereby weakening the objective of a national and uniform building code. (sub. 24, p. 6)

Box 8.5 OECD best practice principles for consultation

Consistency and Flexibility

Consultation programs must be flexible enough to be used in very different circumstances, but operate within a framework of minimum standards, in order to provide consistency and confidence.

- Minimum standards allow all parties to assess whether consultation has been properly undertaken and provide clear guidance for regulatory policy makers. Where widely understood procedures are employed, procedural problems can be identified.
- Consultation programs should include a range of strategies and approaches so as to offer wide access to affected groups and maximise information gathering.

Consultation should be broadly based and balanced

- Maximise participation (especially by less organised interests), minimise discretion in deciding who and when; make information widely accessible by:
 - innovative information dissemination including use of information technology;
 - plain language drafting and reader friendly formatting; and
 - clearly setting out issues and relationships between issues and outcomes.
- Structuring a continuing dialogue between parties can enhance the benefits derived from consultation.

Integration

- Consultation is most effective when information is made available early.
- Early consultation helps identify optimal policy options.
- Information on regulatory impacts can be collected more effectively if preliminary impact assessments are made available to the public.

Transparency and Responsiveness

- A systematic consultation policy facilitates public understanding of consultation. Consultation programs are more effective when regulators:
 - clarify why information is needed;
 - explain the process of decision making and opportunities for participation;
 - ensure public comments are appropriately taken into account; and
 - respond substantively to public comments.

Consultation 'habit' part of administrative culture

- Consultation policies must be explicitly supported at high political levels, and reinforced with staff training, incentives and resources.
- Ongoing investment in evaluation and review of consultation arrangements.

Source: Argy and Johnson (2003), p. 90, based on OECD (2002).

BPIC (sub. 23) raised similar concerns:

The recent failure to achieve consensus within the ABCB over the national energy code is of great concern to industry. ...

The prolonged processes for amendments to the BCA dictated by the Inter Government Agreement works against regulatory cooperation and national consistency. Many jurisdictions have decided not to wait for the ABCB processes to be finalised and introduced energy requirements under their town planning codes. (p. 34)

The BCA amendment process should be reformed to expedite change and remove the trigger for unilateral municipal level changes. (p. 35)

Some have concerns that the move from a biannual to annual Code amendment cycle could further prolong the introduction of some reforms. AEA noted the importance of adequate mechanisms for resolving problems with deemed-to-satisfy solutions between updates. Others, however, consider that amendment cycles should be extended further to improve compliance with the BCA. MBA for example, notwithstanding its concerns about delays in implementing reforms, considered that with a 'performance-based Code and accreditation of products and systems, industry will not be unduly restricted with longer amendment cycles' (sub. DR82, pp. 10-11) (accreditation is discussed in chapter 9).

To some extent, delays are an inevitable consequence of the need to achieve agreement between nine jurisdictions and the need for rigorous and transparent consultation and impact assessment processes. Further, the recent agenda for the Board has included reform issues for which acceptable resolutions are inherently more difficult to achieve (eg energy efficiency).

Nevertheless, some participants considered that institutional and procedural reforms could improve the timeliness of decision making. MBA suggested that:

... the Committee structure of the ABCB needs to be reviewed, including resources, to ensure that amendments and other technical matters can be dealt with expeditiously. (sub. 24, p. 6)

The NSW BRAC (Industry members), called for:

... the introduction of a regulatory development system that is able to be more responsive to community needs and expectations. (sub. 25, p. 2)

The Australian Conservation Foundation considered that the time taken for new standards to pass through 'departmental processes' is too long and needs to be addressed:

While consultation and impact assessments should be thoroughly completed, the time taken on internal departmental processes to finalise changes to the BCA *post-RIS*, and *post-consultation* tends to be significantly longer than comparative policy making. The development of energy efficiency standards for class 1 buildings, and class 2,3,4 buildings are examples of this. (sub. DR77, p. 8)

While, as noted above, the HIA has recognised the openness and transparency of ABCB consultation, it has also noted that ‘[i]t is the prolonged process of consultation during the development of regulations that is seen as being one of the primary hurdles to efficient process’ (sub. 6, p. 25). On a similar note, the ABCB Chairman (sub. 4, p. 42) suggested that ‘[c]onsultation is extensive, to the extent that at times the ABCB is criticised for over-consulting and taking too long to make changes’. The Australian Business Council for Sustainable Energy considered that regulatory review (RIS) processes ‘are a key element in the unacceptable delay in implementation of sustainable energy requirements’ and recommended that ‘more substantial resources be allocated to this area’ (sub. DR78, p. 8).

The Chairman’s submission indicates that the problem of delays in determining reforms has been recognised by the Board and some steps have been taken to address the issue:

In response to criticisms from industry about standards proliferation and processes, the ABCB has recently been able to bring standards making processes into a generic BCA referenced document protocol. This will strengthen the rigour and timelines for standards being mandated in the BCA ... (sub. 4, p. 47)

Greater use of expert technical committees could also contribute to increased efficiency and improved timeliness. The Technical Validation Panel trial is relevant in this context (see chapter 10).

The governance arrangements for Food Standards Australia New Zealand impose clear timetables for decision making. There may be merit in incorporating such timelines for the ABCB in a revised IGA. Several participants supported the use of explicit target timeframes (MBA, sub. DR82, p. 10; Municipal Association of Victoria, sub. DR71, p. 10; Property Council of Australia, sub. 52, p. 9). Other participants, however, had reservations about the practicality of such an approach:

All reforms are individual and come with their own unique circumstances. Prescribing specific timeframes within the IGA for the consultation and decision making processes which would be relevant to all reforms, would be very difficult (if not impossible) to achieve. This is due to the different size, nature, and complexities of various reforms and the various stakeholders associated with such reforms (including the need for a whole of Government response to certain reforms).

The need for comprehensive consultation and rigorous impact assessment (which is fully supported) will vary the timeframes considerably depending on the nature and complexity of the reform. Furthermore, caution needs to be exercised that arbitrary time frames do not adversely impact on the delivery of good quality reform proposals and outcomes. (NSW Government, sub. DR87, p. 4)

... the outcome of the RIA should determine the speed with which action is taken, not a timeframe set prior to any assessment process. (BPIC, sub. DR84, pp 4-5)

Restrictive time frames could have the effect of reducing the consultation undertaken and thereby effect the quality of the outcomes. (Graeme Hunt, sub. DR83, p. 5)

Were such target timeframes to be adopted, there would need to be appropriate *flexibility* to accommodate unforeseen developments and any timetable *must not come at the expense of good process*.

There is some pressure from industry to get access to proposed Code changes much earlier, preferably well before implementation (with referenced standards made available concurrently). This is at the same time that there have been calls from some participants for longer consultation periods (although others have a contrary view, see above). The South Australian Government (sub. 36) recognises the difficulty, stating:

There is a real dilemma for the ABCB in that industry has asked for updated versions of the BCA to be available 6 months prior to implementation (to aid the development of designs that are ‘on the drawing board’) but this needs to be balanced by having adequate public consultation. ...

The balance between industry needs, adequate consultation and being responsive to new issues needs to be reassessed. It could be argued that the current approach too heavily favours industry. (p. 12)

Although industry may object, a faster and more responsive approach would help to counteract pressures for jurisdictions to develop separate provisions. (p. 14)

However, at the same time that there exists widespread concern about delays in implementing reforms, some participants are concerned about the pace of reform being too fast for practitioners to keep abreast of reforms (see raising awareness discussion in chapter 9).

FINDING 8.2

Delays in reaching agreement and implementing BCA reforms are providing some incentive for unilateral action at the State and Territory or Local Government level. This trend is contrary to the goal of a nationally consistent building code. However, to some extent delays are an inevitable consequence of the need to achieve agreement across nine jurisdictions; and the need for rigorous and transparent consultation and impact assessment processes.

RECOMMENDATION 8.4

The ABCB should continue its efforts to expedite BCA reforms to the extent possible, whilst maintaining comprehensive consultation and rigorous impact analysis processes.

Updating

The BCA is often described as a ‘living document’. It needs regular updating to reflect ongoing innovation in building technologies and practices. Some participants expressed the view that the Board has given insufficient attention to maintenance and updating of the Code.

In the development of BCA96, many of the previous prescriptive building requirements were transferred into the new Code as deemed-to-satisfy solutions.⁷ Further, at the time of release of the Code, it was recognised that some matters, such as the clarity of certain performance standards and the relationship between some deemed-to-satisfy solutions and performance requirements, would require revisiting. (The structure of the code and the relationship between objectives, performance requirements and deemed-to-satisfy solutions is covered in chapter 5.) Some participants suggested that the necessary reviews have in many cases not taken place.

BPIC referred to the Housing Provisions to highlight the problem:

... the Housing Provisions are not being developed to keep pace with evolving industry practices and innovative building materials coming on to the market. The implications are that the Housing Provisions are becoming obsolete.

... The original development of the code was seen as a preliminary step and a commitment of code specific resources was to enhance the content of the document. This has not occurred. (sub. 23, p. 77)

And FPA Australia submitted:

... requirements for fire safety were provided in the new BCA as prescriptive or acceptable solutions without detailed checking whether they completely reflected the BCA fire safety objectives (to the extent they were defined or assured) or technically satisfied the BCA Performance Requirements. ...

In practice, many in the industry would think that a number of the solutions described by the Deemed-to-Satisfy text in the BCA would not meet the Performance Requirements. (sub. 19, p. 5)

The NSW BRAC (Industry members) state that:

At present the current BCA continues to retain some problems associated with the "bottom-up" approach that was used to convert the original prescriptive regulations into performance-based requirements.

⁷ Sometimes termed a ‘bottom-up’ approach, in contrast to starting with broad functional statements, objectives and performance requirements and then determining appropriate deemed-to-satisfy requirements (a ‘top-down’ approach).

It is also considered necessary to raise the priority in the development of the Future Building Code of Australia [BCA 21] to introduce a “top-down” approach to the development of Australian building regulations. (sub. 25, p. 1)

In addition, NATSPEC (sub. 69, p. 3) has noted that in some instances the BCA references standards that have been superseded or amended. While it may take some time for the ABCB to evaluate new standards, and in some cases the revised standards may not be appropriate for referencing, as a general rule the BCA should reference the most up-to-date standards.

MBA (sub. 24, p. 3) considers that an ‘important future objective of the ABCB is for it to also have a focus on maintenance of the current BCA’:

... Considerable investment has been made in the Code and therefore its implementation and adoption should remain one of its key priorities for the future.

The BCA 21 project (development of the next version of the BCA) provides an appropriate opportunity to review and update provisions in the Code. However, it appears that work on this area has been given lower priority in order to focus on the development of access provisions for people with disabilities and energy efficiency. The NSW Government submitted:

It appears that ongoing ‘maintenance’ of the current BCA is suffering to some degree at the expense of the “bigger reform agenda”. Whilst it is recognised that the major reforms are of significant importance, so too is a clear, concise and practical BCA for end users.

It is recommended that “ongoing maintenance” of the BCA be allocated dedicated resources so as to enable the addressing and resolution of various problems associated with the interpretation and application of the BCA Deemed-to-Satisfy provisions. (sub. 53, pp. 4-5)

RECOMMENDATION 8.5

The ABCB, as a high priority, should continue to work towards maintaining and updating the core technical requirements in the BCA.

8.2 Accessing the Code

The Building Code contains requirements that become mandatory once they are referenced in legislation. Therefore, accessibility and transparency are important considerations. Accessibility has a number of facets, including the form (hard copy, electronic etc) and style in which it is communicated (structure, user friendly style, use of plain language etc) and also the cost of access. Chapter 5 assesses some of the style issues, whilst the focus here is principally on form and cost.

The ABCB has chosen to adopt a 'user pays' framework for access to the Code. The BCA is available for a fee in hard copy, on compact disc, or online (see box 8.6).

Box 8.6 BCA pricing

The BCA is priced as an annual subscription service providing latest amendment updates, along with additional amendment advice, and Building Code information during the subscription year. Prices range from \$130 for housing provisions only in hard copy to \$350 for the full BCA (includes hard copy, online access, CD-ROM and E-guide). However, this does not include access to referenced standards.

Subscriptions also provide access to:

- historical versions of the BCA;
- BCA archived documents;
- e-mail alert service for amendments;
- Australian Building Regulation Bulletin;
- selected guideline documents; and
- the BCA MiniCode Generator (see box 8.7).

The ABCB provides discounted pricing for: building and construction industry students; classroom-based packages for tertiary institutions providing building and construction related courses and programs; and for organisations seeking to purchase multiple hard copy products or multiple licences to BCA electronic products.

Sources: ABCB Chairman (subs. 4 and DR75) and ABCB website (accessed 21 October 2004).

These charges provide revenue to the Board additional to funding from the Australian, State and Territory Governments. Access to referenced Australian Standards incurs an extra charge. To acquire the Building Code and relevant standards (primary only) can be very costly (around \$1300 for a 12 month subscription (sub. DR75, p. 14)), although the purchase of the Code (and standards) would be a tax deductible expense for businesses. In hard copy these documents can amount to thousands of pages.

Hard copies of the BCA (without referenced standards) are available to be viewed free of charge in various locations in every State and Territory, including public libraries, local councils, Standards Australia outlets and tertiary institutions. A complete list of these locations is included on the ABCB website. The ABCB Chairman (sub. DR75, p. 14) outlined other methods for gaining limited free access to the BCA:

- internet access for limited time periods, for example free 7-day BCA online trial for those in a remote area;

-
- the ABCB Office faxes or emails relevant parts of the BCA to low volume users on request⁸; and
 - single membership subscriptions for smaller industry associations, which are then allowed to provide relevant BCA information to their members free of charge.

The Board has been able to achieve an overall reduction in BCA pricing and improved access in recent years with the development of an online BCA service. Other recent initiatives introduced by the Board to improve access to the Code, include:

- A newly formatted publication and less frequent updates — the recently released BCA 2004 replaces the hard copy ring binder with a newly formatted B5 sized annual publication (removes the need for subscribers to replace pages within the amendment cycle).
- Casual access online subscription — \$33 for either thirty consecutive days in a month or for twelve days in a year.
- MiniCode Generator — an electronic education-based search tool designed to be used in conjunction with the BCA (see box 8.7).

Box 8.7 BCA MiniCode Generator

Submissions to the Laver Review suggested that the useability of the BCA could be improved if it were possible to easily extract from the Code all references to specific subjects, including any applicable Australian Standards.

The ABCB has now developed the MiniCode Generator, which enables BCA data to be searched, compiled and presented through an online user questionnaire.

BCA users input their own building project specifications based on a series of prompts. Once the MiniCode Generator has received all the required project information, a search function then collects, compiles and presents all clause, sub-clause, and sub-sub-clause information relevant to the user's project, and in effect, compiles for the user a miniature version of the BCA. MiniCode is now available online to BCA subscribers for education and training purposes.

Sources: Laver Review 2000 and sub. 4, p. 17.

⁸ 'These are generally members of the public or those in the industry who seek to ensure compliance with a limited part of the BCA — for example; waterproofers, pest controllers, or glazing contractors. This service cannot be extended to the supply of relevant referenced standards for copyright reasons.' (sub. DR75, p. 14)

The costs associated with keeping abreast of changes to the Code may be reduced with the change to an annual amendment cycle, a move welcomed by most participants. MBA (sub. 24, p. 4), for example, supported this change describing it as a positive step that will ‘allow industry adequate time to prepare for changes to the BCA’. This can be particularly important with the long lead times involved in project development. Although it must be acknowledged that with less frequent changes to the Code, the scope, or number, of changes with each amendment will be greater than would otherwise be the case.

Concerns about access to the BCA

In conjunction with the preparation of their submission to the Commission’s study, MBA conducted a national survey of its members (see box 8.8). Some of the survey questions related to access to, and use of, the BCA. MBA reported that ‘77% of builders surveyed had a copy of the BCA or had access to the BCA’ (sub. 24, p. 11); ‘94 per cent of respondents indicated that they use the BCA at sometime’ (p. 13); and ‘around a quarter of respondents indicated that they use the BCA on a regular basis’ (p. 13).

Box 8.8 Master Builders National Survey — Access to BCA

299 replies were received, comprising 211 residential projects (with a total value of \$77 million) and 88 commercial projects (total value \$87 million).

Results of the survey — for the BCA access questions — are presented below. The three sets of figures for each response line are, respectively: overall national results; national residential sector only; and range of state and territory aggregate (residential and commercial) results. MBA urged caution in using the results for ACT, SA and WA as the survey’s sample size was quite small.

Do you have access to a copy of BCA?

	%	%	%
Yes hard copy	61.5	61.1	} (67 WA – 91 Vic)
Yes electronic	16.1	13.3	
No	22.4	25.6	(33 WA – 9 Vic)
Use of BCA			
Use regularly	23.7	21.8	(20 Tas – 40 ACT)
Never refer to	6.4	8.1	(0 ACT, SA, WA – 10 Tas)

Source: sub. 24.

While the proportion of respondents using the BCA on a regular basis seems quite low, the other figures, on the surface, present a somewhat positive picture on access to, and use of, the Code. However, the wording of the questions ‘had a copy...or had access to’, ‘use at some time’, and ‘use on a regular basis’ are broad, cover a great range of access scenarios and are open to subjective interpretation. The responses to these questions do not provide a definitive indication of the *adequacy* or quality of access. For example, a builder may be aware that the Code can be accessed at a local library, but this form of access may be quite inconvenient and impractical.

The ABCB Chairman stated that:

... it is believed that there are many designers, builders and other industry participants who do not use it [the BCA] actively and could derive benefits from doing so. Uptake by subscribers as a proportion of those who could be potential users is around 30% ... (sub. 4, p. 16)

The HIA commented:

... while many practitioners may be aware that the document exists, there remains a significant number who do not access the document on a regular basis. This outcome creates problems within the industry because regular amendment of the BCA means that the working knowledge of many practitioners can quickly fall behind current requirements. (sub. 6, p. 42)

Several participants suggested that the cost of accessing the Code may be a significant factor contributing to the low uptake.

The cost appears to be a significant issue with most builders. A review should therefore be conducted as to the appropriateness of the current pricing structure and to assess what impact pricing has on accessing the BCA by practitioners. (MBA, sub. 24, p. 11)

There is clearly a lack of knowledge and compliance out in industry with respect to requirements of the BCA. We submit that this limitation is attributable in part to the high cost of purchase of the Code. (The Air Conditioning and Mechanical Contractor’s Association of Victoria, sub. DR80, p. 1)

Currently, the BCA standards package (primary references only) is available at approximately \$1200.00 per annum. This combined with the BCA cost of approximately \$270.00 creates an expensive legislative regime with costs in the region of \$1500.00 per annum for building practitioners to fully understand their legal obligations in regards to building. This cost would perhaps triple if the secondary and tertiary reference codes were included.

These costs are excessive and unreasonable. (BPIC, sub. 23, p. 68)

However, the New South Wales Government, the Victorian Government and the ABCB Chairman considered that the link between the cost of the BCA and access was less clear:

There is no compelling evidence that the price of the BCA (not including referenced standards) impacts on uptake among users of the BCA. (ABCB Chairman, sub. DR75, p. 14)

It is felt that further investigation and documentation is needed to fully articulate and substantiate this claim. (NSW Government, sub. DR87, p. 5)

It may be that the format of the BCA or lack of understanding of its role provides greater hindrances than the cost. (Victorian Government, sub. DR91, p. 2)

(The cost of access to referenced standards is discussed at the end of this chapter.)

Further, while it is possible to purchase the housing provisions of the Code (Vol. 2) separately, users only interested in Volume 1, must also purchase Volume 2. This was described by one participant as a ‘rip-off’.

Some concerns were expressed about the new annual A5 hard copy version of the Code. The Commission was told that builders do not like the new format because they have to break the spine of the book to photocopy extracts to show their workers. (Of course extracts could be printed from the online version of the Code.) ANZSES recommended:

... a system that reduces paper wastage (contrary to the new bound hard-copy which prevents regular updates) and promotes electronic usage where applicable. (sub. 1, p. 9)

ANZSES pointed out that the online system could be further enhanced by providing:

... links to other sites which would assist a designer or builder in selecting appropriate deemed-to-comply systems or products ... (sub. 1, p. 9)

The Queensland Government (sub. DR96, p. 4) suggested that access, particularly for subcontractors, might be improved by publishing the BCA in modules (for example, covering glazing or termite control).

Lawrence Reddaway identified a need for improved access to the BCA for students:

When an assignment requires that the BCA be accessed, the University’s single (or even triple) BCA online subscription is frequently overwhelmed as many students try to access it at the same time.

Obviously, if the BCA were available on line free, this problem would disappear, and I support this approach.

However, ... [as] an alternative solution ... I suggest that ABCB should give the surplus copies of the superseded edition to relevant universities and TAFE colleges. (sub. DR73, p. 9)

ABCB's cost recovery approach

The submission by the Chairman of the Board (sub. 4), made the following observations about ABCB's cost recovery approach:

The ABCB's cost recovery strategy was the subject of a public review and joint decision by all nine governments that supported a 50/50 approach to public and commercial funding for the ABCB's activities. (p. 7)

BCA charging arrangements can be deemed appropriate based on a previous DOFA audit and a review of the Australian Government's Cost Recovery Guidelines. ... (p. 30)

The ABCB cost recovery approach has a legal base. An Intellectual Property Deed and IGA are in place. The Deed merged intellectual property and vested it in joint Australian Government, State and Territory ownership in equal shares of all ABCB materials. This ensures that the code, which [is] the ABCB's major product, is subject at all times to an appropriate level of rigour and control and vests in the ABCB Executive Director responsibility to use, enhance or exploit this intellectual property. Moreover, the ABCB was the subject of an independent public review in 2000 that recommended an approach to the partial recovery of the costs involved in creating the governments' intellectual property in ABCB outputs, including the BCA and related material. (p. 30)

Assessment against Cost Recovery Guidelines

Well designed cost recovery arrangements can promote economic efficiency and equity by instilling cost consciousness among agencies and users; and ensuring those who use regulated products or request additional information (or a higher level of access) bear the costs.

At the end of 2002, following a public inquiry and report by the Productivity Commission (PC 2001a), the Australian Government adopted a formal cost recovery policy '... to improve the consistency, transparency and accountability of Commonwealth cost recovery arrangements and promote the efficient allocation of resources' (DoFA 2002). Guidelines have been developed by the Department of Finance and Administration, based on those recommended by the Commission, to assist Australian Government regulatory agencies to design and implement appropriate cost recovery arrangements — one set of guidelines for regulatory agencies and a second for information agencies.

As the ABCB's cost recovery policy is determined by the Board, an inter-governmental body, the DoFA guidelines do not strictly apply. Although this is blurred somewhat because the ABCB Office, currently within the Australian Government Department of Industry, Tourism and Resources (DITR), implements the Board's cost recovery policy and the Department's cost-recovery arrangements

more generally are subject to the guidelines.⁹ In any case, the guidelines are a useful reference for evaluating the efficacy of the ABCB's cost recovery approach.

The ABCB is primarily an agency that develops regulations, although it also collects, compiles and disseminates information. The Code itself is difficult to classify but could be considered a hybrid between a technical information document and a regulatory document. Thus the DoFA guidelines for regulatory agencies and information agencies are both of interest.

These DoFA Guidelines contain a number of broad principles or conditions for determining when cost recovery is appropriate and criteria for guiding cost recovery policy design and implementation (see box 8.9).

With reference to the principles in box 8.9, the Commission notes, as observed by the ABCB Chairman, that the Board's practice of charging for the Code has a legal basis. Nevertheless, a threshold question that must be addressed, is whether cost recovery is appropriate.

Two necessary, but not sufficient conditions for cost recovery to be appropriate are that: it must be possible to identify the principal beneficiaries; and charging is technically feasible. While the ultimate beneficiaries of the BCA (and the health, safety and amenity standards that it seeks to deliver in buildings) are the general community who live and work in the buildings covered by the Code, it can be argued that the principal beneficiaries of the Code are the direct users, that is designers, developers and builders. The ABCB Chairman submitted that these groups derive a significant private benefit from the Code:

... some weight needs to be given to recouping costs from the principal beneficiaries of the BCA — those who benefit from a significant private good. ...As subscribers to the BCA service, they benefit from a high level of functionality and detail from the BCA volumes and Guide, including, for example, improved images, archive material, content searches and assistance with technical interpretations. ... they can also opt to be part of an alert system for changes to the BCA, early notification of proposed amendments and the opportunity to comment on them.

Subscribers are also likely to be practitioners who will directly benefit from the ready made design and construction solutions of the DTS provisions. These non mandatory parts of the BCA result from significant investment in research and intellectual endeavour by the ABCB and partnering organisations. Without access to this information, practitioners would incur significant additional costs. (sub. DR75, p. 15)

⁹ Indeed, the ABCB cost recovery arrangements will be reviewed against the Guidelines as part of a broader review in 2006–07 (in line with the Government's five year review schedule) of cost recovery arrangements within the ITR portfolio (Minchin 2002).

Box 8.9 Cost recovery guidelines

When is cost recovery appropriate?

- The principal beneficiaries can be identified and charging is technically feasible.
- Cost recovery should be implemented for economic efficiency reasons, not merely to raise revenue. Cost recovery should not be implemented where: (i) it is not cost effective; (ii) it would be inconsistent with policy objectives; or (iii) it would unduly stifle competition and industry innovation.
- Case for cost recovery assessed on an activity basis, rather than an agency basis.

Design and implementation:

- Cost recovery arrangements should have clear legal authority.
- Partial cost recovery is generally inappropriate — the prices of regulated products should incorporate *all* of the costs of providing the products/service, including operational/administrative costs of regulation.¹⁰ Possible exceptions include: phasing in or adjustment periods; or to meet community service obligations or other government policy objectives.
- Choose an approach to charging that is consistent with the objectives of the activity.
- For information products (such as educational and training services, publications etc) the collection, collation and dissemination of the Basic Product Set (BPS) should be taxpayer funded. Criteria for determining the BPS, include:
 - they have ‘public good’ characteristics¹¹; and/or
 - they generate significant spillover benefits to the broader community; or
 - there are other policy reasons for the product to be provided free.
- Additional (non-BPS) information products should be classified into three broad categories and priced accordingly:
 - dissemination of existing products at marginal cost;
 - incremental products (which may involve additional data collection, compilation, or wider/enhanced dissemination) at incremental (avoidable) cost; and
 - commercial (contestable) products according to competitive neutrality principles.
- Avoid cross subsidies.
- Ensure transparency and accountability, industry consultation and periodic review.
- Levies generally considered only if fees-for-service not efficient and cost-effective.¹²

Sources: Based on information in DoFA 2002 and Minchin 2002.

¹⁰ Cost estimates should be based, where possible, on efficient costs, not actual costs.

¹¹ Public goods exist where it is costless to allow additional consumers to enjoy the benefits of a good or service and where it is not possible anyway to exclude them from doing so.

¹² Either because it is difficult to establish a fee that accurately links the costs of the activities to the regulated firms or individuals; or because the fee is costly to collect.

Similarly, the Victorian Government stated:

One of the key beneficiaries of the Code is the building industry, which also comprises the primary users of the Code. It is considered fair and reasonable that this sector contribute to the cost of production, maintenance and amendment of the Code. (sub. 51, p. 10)

While there are also significant spillover benefits accruing to non-purchasers, the businesses that directly use the Code may generally be able to pass on the cost of purchasing the Code to the consumers who ultimately benefit. Prima facie, these factors in isolation suggest that some charges for the Code may be efficient (particularly for higher levels of access, special services etc).

The fact that the existing practice of charging for the Code appears to be working substantiates that charging is technically feasible.

In several respects, however, the ABCB's cost recovery policy and practices appear to be inconsistent with the DoFA Guidelines.

Given the Guidelines and the concerns of participants outlined above, the following aspects of the ABCB's approach should be examined:

- the potential conflict with public interest and policy objectives
- the appropriateness of setting targets (making the case for cost recovery on a case-by-case, rather than agency basis)
- transparency.

The first of these is the most significant and indicates that the appropriateness of charging for a minimum level of access to the Code should be reviewed. Accessibility of legal requirements is a fundamental aspect of regulatory transparency and Australian governments have implemented measures aimed at ensuring the law is communicated clearly and is readily accessible. For example, in all jurisdictions, legislation is accessible free of charge online. For Commonwealth legislation, the recently enacted *Legislative Instruments Act 2003* requires (from 1 January 2005) not only that legislative instruments be included on an electronically accessible *Federal Register of Legislative Instruments*, but further only those instruments on the Register will be enforceable.¹³ The ACT has also implemented a similar 'authoritative' register of ACT laws, including all legislative instruments *and* primary legislation.

¹³ The Act allows for limited exemptions, but almost all Commonwealth legislative instruments will have to be registered. All legislative instruments that are required to be registered are not enforceable until they are registered.

The requirements in the Code are mandatory once they are called up into State and Territory building laws.¹⁴ Successful implementation of the Building Code, and achievement of the health, safety and amenity objectives that it embodies, relies on a high level of compliance by those industry participants whose conduct it seeks to influence. High compliance, in turn, is dependent on a high level of awareness and understanding of the Code. Easier access to the Code is in the ‘public interest’ as it facilitates greater awareness — or conversely, to the extent that charges discourage access, they are likely to contribute to reduced awareness and poorer compliance, compromising the achievement of the Code’s objectives.

Several participants agreed with these broad principles:

There are reservations about charges to access the BCA, given it is increasingly dealing with a broader range of public policy issues which the public will expect to access free of charge. Therefore, there may be benefit in reviewing current charging policies.

The cost of accessing the BCA acts as a disincentive for builders, and therefore impacts on compliance levels and the application of innovative performance solutions. (Queensland Government, sub. 41, part 2, pp. 6, 12)

... the BCA is a mandatory legislative document and should be available free of charge via electronic access in the same manner that other legislation is available. Hard copy versions of the BCA should also be available, however it would be reasonable [for] these to be sold. ... (HIA, sub. 6, p. 37)

The BCA is a legislated document and therefore government law.

... as the law of the land [it] must be accessible to all of the community to ensure transparency of purpose, high levels of compliance and government accountability. Legislative requirements that are highly priced introduce exclusivity and preclude access to lower socio-economic groups. (BPIC, sub. 23, p. 67)

AEA (sub. 44, p. 26) suggested that at least the high level BCA objectives and performance-based requirements should be freely available via the internet.

The Tasmanian BRAC (sub. 29, p. 9), while considering charging for the Code to be appropriate, also thought that the ‘charges should be kept as low as possible to enable as many people to obtain and use the BCA’.

Some participants questioned the link between the cost of the BCA and compliance. The ABCB Chairman and Graeme Hunt, ABCB Board Member, Tasmania (sub. DR 83, p. 5), claimed that that there has been no evidence of a link between pricing

¹⁴ Further, some parties in some jurisdictions are effectively compelled to have a copy of the BCA. For example, in NSW the new continuing professional development requirements for licensed builders and trade contractors/supervisors requires attendance at a course. The tertiary institutions and industry associations delivering these courses are sometimes requiring participants to bring along their own copy of the BCA for use as a “textbook” (ABCB, pers. comm., 9 November 2004).

for the BCA and compliance. The Chairman stated that there ‘is a far stronger link between compliance and issues such as simplification of the BCA, information and awareness activities and shortages of skilled certifiers’ (sub. DR75, p. 14).

The Commission’s view is that the Code should be regarded (using the terminology of the guidelines) as part of the Board’s basic product set and a minimum level of access should be available at no cost. The current free access at libraries, whilst of benefit to some irregular users such as students, does not provide a minimal level of practical access for practitioners. Similarly, the casual access online subscription is also a good initiative, but again does not provide sufficient access.

Some argued that the basic product set should be limited to the performance requirements, since these are the only mandatory or legislative requirements. An alternative view, supported by the Commission, is that the deemed-to-satisfy solutions must be part of the minimum level of access free of charge, because most users of the Code rely on these (see chapter 2). However, if the Commission’s recommendation for better articulation of the performance-based requirements was to be implemented, the composition of the basic product set could be reviewed.

In light of the above principles, one possible approach would involve:

- providing a minimum level of access free of charge, that is:
 - online access to the *full code*;
 - in hard copy for public access (as presently) at libraries and other public viewing locations;
- recovering ‘run-on’ or incremental costs (mainly printing and handling costs) for hard copies of the Code (this would also discourage frivolous demand); and
- charging commercial prices (recover all costs) for higher levels of access (eg more convenient format, CD-ROM, additional guidance material, MiniCode Generator, automatic e-mail alert service etc).

It has not been feasible in this study to quantify the actual impact of BCA charges on compliance (and therefore the likely increase in compliance that might result from reducing the cost of access). The Commission acknowledges that there is some debate about the relative importance of cost as a determinant of the take-up rate and awareness. However, based on the anecdotal evidence presented to the Commission, it is reasonable to conclude that making the Code available free (or at substantially reduced cost) is likely to generate some improvement in access, awareness and compliance. As the BCA requirements have been developed partly to correct market failures, any such improvement would have spillover benefits for the broader community. Better access is also consistent with broader government policy goals.

Revenue implications for the ABCB would be very significant as BCA sales revenue is currently a major source of funds. For this reason, changes in pricing policy may need to be phased in. In any case, a reduction in sales revenue would require ipso facto, an increase in contributions from governments. However, to the extent that reduced charges lead to increased market penetration and higher sales of the Code and related products, unit production and dissemination costs may fall. Also, over the medium term the Board may be able to develop new value-added products (like the MiniCode Generator) that will provide additional sources of funds. Further, although the Commission considers that access to deemed-to-satisfy solutions should be considered part of the basic product set/minimum level of access, some other ‘value-added’ features currently incorporated in the Code may be more appropriately included only in higher-level access packages and subject to an appropriate charge.

The discussion above of the Board’s current cost recovery policy suggests that there may be an informal, if not explicit, *cost recovery target* of approximately 50 per cent for the Board’s operations as a whole. The Commission notes that any such target would be inconsistent with the DoFA cost recovery guidelines. When reviewing ABCB’s cost recovery practices, a ‘bottom up’ approach should be adopted, by distinguishing between activities and deciding on cost recovery on a case-by-case (ie activity) basis, rather than on a whole-of-agency basis.

Transparency requires that an agency articulate clearly the rationale for and objectives of its approach to cost recovery, as well as the basis for and details of costing models used. There would appear to be little public information about the ABCB’s cost recovery approach. While charges for products and services are set out on the Board’s website, there is no information about the policy behind and basis for the charges. Transparency also requires consultation with stakeholders.

FINDING 8.3

The number of BCA subscribers is low relative to the number of potential users. This has implications for awareness and compliance. The cost of the BCA appears to be a barrier to improving access, awareness and usage. The ABCB’s cost recovery arrangements are inconsistent with the Australian Government’s cost recovery guidelines.

RECOMMENDATION 8.6

The ABCB’s cost recovery arrangements should be amended to be made consistent with the Australian Government’s cost recovery guidelines. The revised Intergovernmental Agreement (IGA) should provide sufficient ABCB funding for

the reform agenda and to enable a minimum level of access to the BCA free of charge.

If, as the Commission has recommended, the ABCB were to provide measurable criteria for performance-based standards, then it may be appropriate to charge for access to the deemed-to-satisfy solutions.

Access to referenced standards

The BCA references about 100 primary Australian Standards and several hundred secondary and tertiary Standards. The same principles of transparency and accessibility of legal requirements discussed in relation to the Code, apply equally to any standards (not just SAI standards) that must be referred to in order to comply with a deemed-to-satisfy solution.

As noted above, strictly speaking the deemed-to-satisfy solutions in the Code are not mandatory requirements, rather they are helpful ‘recipes’ that can be followed in the certainty that they will meet the mandatory performance requirements. For many users, however, the deemed-to-satisfy solutions and certain referenced standards they adopt, are an essential component of the Code. BPIC commented:

It is unacceptable that SAI retain their conventional costing structure [for Australian Standards] when government law requires the document to be purchased and the information in that document forms an essential part of the national building regulatory system. (BPIC, sub. 23, p. 68)

Mandatory referenced documents should also be available free of charge via electronic access. It would be reasonable for optional referenced documents, such as the majority of SAI referenced standards, to be sold. (HIA, sub. 6, p. 37)

There is a strong argument for essential referenced standards to be made available free online with the BCA. However, the ABCB and governments have no direct control over the cost of Australian Standards. Pricing and distribution is determined by the commercial arm of Standards Australia (SAI Global). Charges represent a return on Standards Australia’s intellectual property.

The ABCB has recognised the cost of standards as an issue. The Chairman informed the Commission that ‘one goal of the ABCB Core Strategic Group is to minimise the number of referenced standards in future editions of the BCA’ (sub. DR75, p. 14).

This goal is supported by the Commission. Minimising references to external standards could significantly improve the accessibility of the BCA deemed-to-satisfy solutions and the compliance costs associated with identifying and understanding requirements. The Tasmanian BRAC commented on the costs of accessing BCA referenced standards:

... there has developed a process of fragmenting standards to 2 or more documents for many issues and for cascading referenced documents from one to the next and so on until finally the relevant information is revealed. This is costly, time consuming and difficult for practitioners referencing the document. (sub. 29, p. 5)

The cost of Australian Standards is an issue that goes well beyond the BCA and the scope of this study. SAI Standards are widely referenced across a range of Commonwealth and State and Territory legislation/regulation. Concerns have frequently been raised, especially by small businesses, about the accessibility of referenced Australian Standards. As is the case with the BCA, particular difficulties are posed where mandated standards contain cross references to other standards.

While there are clearly significant obstacles to the provision of free access to Australian Standards referenced in the BCA (including that SAI holds the copyright for their standards), various options may merit further examination. For example:

- the ABCB could pay SAI an appropriate royalty for the right to publish essential primary referenced standards online, linked to the BCA; or
- SAI could provide online access on a free subscription basis and then receive compensation from ABCB for revenue forgone (ie based on the number of subscribers).

In either case the ABCB would, in turn, require a funding supplement from governments. There are likely to be a number of practical and legal issues that would need to be addressed in order to determine the feasibility of these or other options.

In addition, the recognition, wide dissemination and promotion of a range of alternative standards (and solutions), demonstrated to have met BCA performance requirements, would further improve access, awareness and compliance (see chapter 5).

More generally, there may be a case for establishing a freely accessible online register of *all* Standards referenced in legislation or regulation. At the same time, the encouragement of a broader standards-writing base (and the competitive pressures this would introduce) could be part of a longer-term strategy for reducing the cost of referenced standards.

RECOMMENDATION 8.7

The ABCB should continue to work towards minimising the number of referenced standards in the BCA. The Australian Government could review the broader issue of access to standards referenced in legislation/regulation. As part of this review, consideration could be given to the possibility of free access to any standards retained in the BCA.

9 Other activities of the Board

This chapter examines other activities of the Board, undertaken in support of its central function of Code updating and development, as follows:

- research (section 9.1);
- raising BCA awareness through education and training (section 9.2);
- preparation of guidance documents (section 9.3);
- product certification (section 9.4); and
- international cooperation and collaboration (section 9.5).

The chapter therefore, in effect, addresses IGA objectives one, four, eight, nine and ten.

9.1 Research

In accordance with objective 4 of the IGA, the ABCB supports research that promotes innovative and cost-efficient solutions. The ABCB research program covers a broad agenda, including: projects on the efficacy of technical solutions; areas for further development of the BCA; and the development of national administrative processes.

Some government involvement in building-related research can be justified on the grounds of market failure. In particular, the non-excludable spillover benefits derived from research can lead to an under-investment by industry (from the perspective of the community as a whole) in building research (see chapter 3).

The ABCB employs a number of research strategies, including: in-house research; outsourcing to external consultants; partnerships with bodies such as the Cooperative Research Centre (CRC) for Construction Innovation and the CRC for Bushfires; and sponsoring of student research.

The Standards Australia International (SAI) standards development process is also based on extensive research, which feeds into Code amendments. In addition, research in the building and construction industry is conducted independently by

several private and public bodies, such as the CSIRO, the output of which is also reflected in some referenced documents.

ABCB research priorities are determined after consultation with stakeholders. The key mechanisms for identifying stakeholder needs are an annual public call for proposals and an annual Industry Forum on Research facilitated by the ABCB.

Important areas of research covered to date include fire codes, access for people with disabilities, weather tightness, energy efficiency and the resolution of State and Territory variations from the Code. The ABCB Chairman's submission identified some of the benefits of the Board's research program to date:

- development of safe and cost-effective provisions for aged care facilities;
- development of energy-efficient and cost-effective provisions;
- acceptance of the use of timber framed construction in low rise Class 2 buildings;
- cost-effective provisions for structural steelwork in car parks;
- adoption of a more representative international fire test for interior linings; and
- development of a guideline for building professionals in the use of fire safety engineering solutions. (sub. 4, p. 23)

The Victorian Government submitted that the ABCB's research program 'has provided considerable benefits to the industry to date', including 'providing appropriate and cost-efficient provisions for a range of building construction matters' (sub. 51, p. 13). The Queensland Government (sub. 41, part 2, p. 19), while noting that timeliness is an issue, was of the view that '[c]onsiderable benefits have been derived from the longer term investment in fire research and similar advantages are anticipated from other current research efforts'. A number of other submissions also made supportive comments about the ABCB's research program:

Research has been focused and well placed to inform the development of provisions in the BCA (eg sound, energy efficiency).

The ABCB has been very effective in organising research programs to meet the priorities for the Board's development of the Code. (South Australian Government, sub. 36, p. 21)

The ABCB has endeavoured to operate an efficient research program. The areas of research addressed to-date are generally considered to have been relevant to the further development of the BCA. (Housing Industry Association (HIA), sub. 6, p. 43)

The ABCB's research is supported and resources adequately allocated. The research is cost effective and is developing benefits that States and Territories would be unable to do in isolation.

The research is being well managed ... and the ABCB is the appropriate body to conduct and coordinate such research. (The Tasmanian Building Regulation Advisory Committee (BRAC), sub. 29, p. 12)

The Building Products Innovation Council (BPIC) also considered that the ABCB is the most appropriate body to *coordinate* the research, but argued that the ABCB should not *conduct* the research. While, overall, BPIC's view (sub. 23, p. 76) was that the ABCB 'are doing a commendable job in the area of research and development', concern was expressed about political considerations of the day having too much influence over the research program:

The national regulatory body should have sufficient resources to undertake a structured and continual review and development of the BCA requirements outside the direct influence of political agendas. Although it is recognised that political concerns should be accommodated they should not hijack a structured research program. (sub. 23, p. 76)

Other study participants identified priority areas for future research and/or commented on how the determination of priorities and allocation of resources could be improved.

The research program could be more strategically determined ie. where can research most effectively address the highest priorities ie. the biggest "bang for the buck". (Queensland Government, sub. 41, part 2, p. 19)

... too much research is mis-directed towards maintenance and expansion of deemed to satisfy prescription and not enough research is aimed at making the performance requirements more workable. And not enough research is aimed at clarifying the spectrum of risk for buildings. (Australian Elevator Association (AEA), sub. 44, p. 30)

There is ... a concern within the BPIC membership that insufficient research is undertaken into long-term strategic planning.

The current ABCB arrangements tend to be more reactive, and fail to provide sufficient emphasis on the importance of understanding the future construction needs of our society, say within 10 to 20 years time. This type of analysis is essential in the development of successful regulations, while also allowing industry to develop product to meet future demands. (BPIC, sub. 23, p. 39)

The areas of energy efficiency are of high priority to ANZSES, and the areas of energy sourcing and energy supply also need to be expanded to incorporate and encourage renewable and sustainable energy supply. (Australia and New Zealand Solar Energy Society (ANZSES), sub. 1, p. 11)

... more funding [should] be allocated to research in the area of disability access (Blind Citizens Australia, sub. 20, p. 12)

AFAC believes there is more scope to expand ... research but not necessarily with the only objective of innovative and cost-efficient solutions in mind. (Australasian Fire Authorities Council (AFAC), sub. 28, p. 16).

AFAC also expressed concern about the lack of a centrally located fire database, noting that Australia is one of the few developed countries without such a database. AFAC submitted:

Notwithstanding the current efforts on the part of fire services to improve fire-related data collection (particularly for performance measurement purposes), there remains a

critical need to establish a national repository of fire-related data for the express purpose of supporting the development of evidence-based building regulatory reform. Such a repository should be managed by a Federal Government agency and made available to all key stakeholders. (sub. 28, p. 10)

Research priorities will be dictated, to a large extent, by the broader priorities for the ABCB's future work program, which are discussed in chapter 11.

FINDING 9.1

Overall, the ABCB's research program has been effective and it is important that it continue. The research priorities should be guided by the future work program of the ABCB.

9.2 Raising awareness of the Code

An effective regulatory system in part depends upon the building industry's awareness of the Code and its capacity to respond to any changes. In addition, it is important that consumers and the general public have a basic understanding of the objectives and scope of the BCA. Objectives 9 and 10 of the IGA direct the ABCB's efforts in this area.

Awareness of the Code is closely related to accessibility (discussed in chapter 8). Reducing the cost of access or improving means of access can be important strategies in raising awareness and knowledge of the Code. The focus of this section is on education and training strategies for promoting awareness of the BCA. Some of the key strategies employed by the ABCB for educating administrators and practitioners using the Code are outlined in box 9.1. When considering appropriate education and awareness strategies, the Board needs to recognise the varying requirements of different categories of potential users. These include:

- administrators and certifiers
- regular users (for example, architects, designers, surveyors, and certain builders)
- less-regular users (for example, smaller builders and tradespeople)
- infrequent or one-off users (for example, students and home buyers).

State, Territory and Local Governments, who have responsibility for implementing and enforcing the Code, also have an important complementary role to play in education and raising awareness and usage of the Code. It is also the case that the more credible and effective are enforcement strategies, the greater will be the incentive for practitioners to familiarise themselves with their obligations under the Code (see chapter 7 on enforcement).

Box 9.1 Key elements of ABCB education and awareness strategies

The ABCB is promoting increased awareness of the BCA through a number of specific strategies, including:

- Publication of the Guide to the BCA (and other guidance documents) — provides users with ABCB agreed definitive information about the interpretation of technical matters.
- On-line answers to Frequently Asked Questions.
- E-mail alerts/updates for Code subscribers.
- Australian Building Regulation Bulletin — regular technical-based information on the Code and building regulations.
- 1300 BCA Telephone Advisory Service.
- One-Stop Education Shop website — identifies accredited courses relating to the building and construction industry and other general education related information.
- Public awareness sessions on specific projects or aspects of the Code — for example, recent sessions presented on BCA energy-efficiency provisions and the proposed Access to Premises Standard.
- Development of an ongoing education program, particularly in regard to changes to the BCA, for certifiers and other industry professionals.
- Redevelopment of the ABCB's 'Working with Performance' course so that the use of performance can be better understood and delivered not only through education programs, but also through information seminars.
- Biennial conferences, attended by industry and government representatives.

Sources: Sub. 4, pp. 17-18 and ABCB website.

The Laver Review (2000, p. 32) found that 'the take up rate of the BCA and the current practitioner knowledge of the code leave a lot to be desired'. The Review made a number of recommendations directed toward improving awareness. Many of these (for example, a searchable web based BCA and online answers to frequently asked questions) have now been implemented by the Board.

The Local Government Association of Tasmania (sub. 32, p. 1) submitted that the ABCB has 'made a significant contribution to the professional development and technical training of building practitioners through its various conference and seminar programs'. The Tasmanian BRAC stated:

From observations at industry meetings etc. it would appear that the strategies [for raising awareness and usage of the Code] have been effective and are transparent. ...

Where large changes occur, such as with energy efficiency, the ABCB's national training program appears effective and of a high quality. (sub. 29, p. 12)

However, information presented to the Commission, suggests that some concerns remain about the adequacy of the Board's education and awareness activities. As well as a low level of awareness and take up of the Code amongst small builders and tradespeople, there is a general lack of awareness amongst consumers.

The recent report of the NSW Joint Select Committee on the Quality of Buildings found that 'there is consumer confusion as to the purpose of the Building Code and what it includes' (Campbell Report 2002, p. 73). The Board's decision to make copies of the Code available at public libraries will improve access to the Code for consumers, but the average consumer would not have the technical expertise to interpret the requirements.

The Master Builders Association of Western Australia (MBAWA) (sub. 8) submitted:

In our view the Australian Building Codes Board has not achieved its stated objective to increase community awareness of building regulatory reform and the BCA. (p. 1)

ABCB and industry need to develop a better education program, particularly in regional areas of Australia to ensure that builders better appreciate BCA provisions. (p. 2)

Nigel Lilley, Builders' Registration Board of Western Australia, also did not believe that the ABCB has met its objective of increasing community awareness of the BCA:

Education is a key to compliance. To increase consumer and building industry awareness of the BCA, a sound education program to ensure a better understanding of BCA provisions should be developed by the ABCB and industry as a matter of priority. Education programs must promote the regular use of the latest BCA by the building industry, and create general awareness for consumers. (sub. 40, p. 2)

Further, MBAWA and Nigel Lilley were concerned about the consequences, for compliance and health and safety outcomes, of an inadequate understanding of the Code:

MBAWA has serious reservations about the degree of understanding of, and compliance with, the BCA by owner builders. (sub. 8, p. 2)

It is the experience of those who work at the Board and the Tribunal that many builders have little understanding of the BCA and its application, leading to non-compliance causing serious consequences.

For example, in a recent proceeding before the Board, a builder's lawyer noted that despite having 30 years experience as a registered builder and holding a first-class reputation, his client had little or no knowledge of the BCA requirements. The builder also had no idea whose responsibility it was to determine the wind loading requirements. The amalgamation of errors led to a tragic death. (sub. 40, p. 1)

BPIC submitted that although ABCB strategies have been ‘reasonably effective in reaching the main administrators of the code ... other areas of the building industry directly and indirectly affected by the work of the ABCB are poorly informed’ (sub. 23, p. 74). The Queensland Government commented that ‘the reach of current education programs on the BCA to the small builder and manufacturing sector appears limited’ (sub. DR96, p. 4).

The Honourable Glen Milliner (retired Queensland MLA and former Minister), had particular concerns about the level of knowledge of the BCA of ‘do it yourself home renovators’.

They have little or no knowledge of the Building Code of Australia (BCA) or where to access it. (sub. DR58, p. 1)

He suggested an education campaign to:

... alert perspective home renovators and do it yourself participants of the legal requirements for building and renovating including gaining the necessary permits and inspections and compliance with the BCA; (sub. DR58, p. 2)

Specifically, in the areas of energy efficiency and renewable/sustainable energy provision, ANZSES considered that further education ‘is essential for the industry to understand the critical issues, and for the Board to be able to implement them’ (sub. 1, p. 4).

Some participants expressed concern that practitioners are having difficulty keeping pace with Code reforms. Pitt & Sherry (consulting engineers, building surveyors) submitted:

The performance of the ABCB should not be measured by the volume of reforms introduced, but by the capacity of the ABCB to transfer knowledge to those that give effect to reforms. If it can’t be demonstrated that practitioners are keeping pace, the rate of reform should be slowed. (sub. 37, p. 6)

It is important that users of the Code not only receive updated versions of the Code incorporating the latest amendments, but all significant changes and their implications should be explained. The Victorian Government considered that the ABCB ‘should take a more active role’ in the provision of information in relation to changes to the BCA (sub. DR91, p. 2).

Guidance documents can play an important role in informing users about the interpretation and application of the Code and amendments. As noted in chapter 2, currently a separate *Guide to the BCA* seeks to provide clarification, illustrations and examples to aid interpretation of Volume one of the Code, while such information is included within Volume two of the Code (the housing provisions).

Some participants had reservations about the usefulness of current guidance information. Australian Asset Management, for example, commented:

... the Guide to the BCA, ... is almost verbatim to the text in the BCA. The support given is not generally helpful as it does not provide adequate examples or definitions of words. (sub. DR98, p. 2)

The South Australian Government (sub. 36) suggested the ABCB could make greater use of guidance material:

It would be useful for the ABCB to issue more guideline documents on how to use, interpret and apply the BCA ... (p. 18)

Guidelines would be useful on such matters as:

- How to develop alternative solutions for compliance with the performance requirements.
- How to apply the performance requirements when considering the upgrading of existing buildings. (p. 21)

In a similar vein, the Queensland Government submitted that:

... the ABCB should consider preparing and disseminating Facts Sheets or User Information Pamphlet's on the various technical and regulatory aspects of the BCA that summarise key points and provide directions to the BCA and other recognised documents. These documents should maximise the use of diagrammatical presentation, include short statements of key facts, summarise roles and responsibilities of parties involved in the building process and provide examples of building types. They could be produced progressively according to an established priority order and made available via the web sites of the ABCB, State building control agencies and industry organisations. (sub. DR96, p. 4)

Formal training also needs to be an essential element of education and awareness strategies. An important vehicle for such training is apprenticeships and other undergraduate training courses for the building trades. The HIA considered that a strategy to raise the profile of the BCA within the industry should:

... address the scope of building regulation education included within tertiary education programs provided through TAFE or University courses. (sub. 6, p. 42)

The Victorian Government identified a need for such training 'to keep pace with advancements in building construction and regulation' (sub. 51, p. 13). However, it acknowledged that:

... given the packed curriculum of these training courses priorities will need to be carefully considered. (sub. 51, p. 13)

The South Australian Government considered that training has been well organised and delivered, but suggested that in addition to training on changes to the Code, there needs to be:

... some “back to basics” refresher training for practitioners on interpreting and applying the BCA. These could be tailored to suit particular industry needs such as building surveyors or project home builders. (sub. 36, p. 20)

Industry currently plays a part in delivering training on the BCA. HIA advised that it offers:

... nationally ... to industry a range of courses focussing on the BCA, its structure, content and application. As well numerous short courses are delivered focussing on specific codes and standards. (sub. DR85, p. 11)

Several participants saw an increased role for industry in the provision of training:

The existing industry associations provide the greatest opportunity to provide ongoing education within this sector. (Victorian Government, sub. 51, p. 13)

... more education and training could be delivered in conjunction with industry organisations. (South Australian Government, sub. 36, p. 20)

Consideration should ... be given to an assessment of the benefits [of] face to face delivery of education programs being undertaken through industry associations rather than the ABCB. (HIA, sub. 6, p. 42)

... HIA are of the view that the ABCB should limit their role in the field of education and training to the development of educational material on changes to the BCA. The building industry should be responsible for the delivery of educational material and the development and delivery of training material for industry practitioners. (sub. DR85, p. 11)

Making knowledge and understanding of the BCA and referenced standards a condition for the granting/renewal of building/trades licences/certificates could also contribute significantly to awareness. In New South Wales, for example, under the continuing professional development requirements, ‘there is an emphasis on developing knowledge of the BCA’ (sub. 53, p. 2). HIA submitted:

With respect to builders knowledge of the Standards this has improved significantly as it has become an important component in all licensing courses. (sub. DR85, p. 10)

BPIC (sub. 23) raised concerns about the apparent low level of awareness amongst its members of ABCB research activities and objectives (p. 76), but also commented that, given resource constraints and other priorities, the current employment of a full-time educational officer ‘is considered to be a luxury’ (p. 75). This position was introduced by the ABCB in response to a recommendation of the Laver Review.

Some study participants identified a need for members of ABCB advisory committees (and SAI committees) to be better informed about the Code, standards and good regulatory practice and recommended that suitable training courses be provided.

There is inadequate education about good regulatory practices and lack of good regulatory culture within committees.

Steps need to be taken to ensure that committee members are properly skilled and qualified in good regulatory practice, economics and risk management. (AEA, sub. 44, pp. 14–15)

People with disabilities [serving on disability advisory committees] urgently need access to affordable and accessible training in Australian Standards, the Building Code, the Premises Standard and the Accessible Public Transport Standards, as well as relevant state and local regulations. (Blind Citizens Australia, sub. 20, p. 3)

FINDING 9.2

While the ABCB has already made substantial progress toward improving awareness of the BCA objectives and requirements, more needs to be done, particularly in relation to reaching smaller builders, tradespeople, students and consumers.

RECOMMENDATION 9.1

The ABCB should enhance its BCA awareness campaign, including investigating opportunities for further partnerships with universities, colleges and industry in the provision of training.

There may be merit in the Board considering the following strategies for raising awareness:

- Preparation and wide dissemination of:
 - a user friendly, plain language BCA information guide that would provide an accessible starting point for consumers and also certain builders and tradespeople with a poorer command of English, who perhaps only need a broad awareness and understanding of the Code. Such a guide could be modelled on aspects of the ‘user friendly’ South Australian Housing Code; and
 - fact sheets, or user information pamphlets, on specific aspects of the BCA.
- Making the ABCB website more interactive.
- Using open public forums for all major Code reforms, including the opportunity to interact, ask questions and provide feedback.

9.3 Use of guidelines

There are two broad types of guidance documents prepared by the Board. The first are prepared for the purposes of providing clarification and explanation of BCA technical requirements. This type of document (discussed in *raising awareness* above) helps users of the Code to understand and interpret the mandatory requirements. The other type of guidance document, discussed below, does not necessarily relate to the technical requirements of the Code. Rather, they typically cover aspects (or a level) of construction or building performance that are considered not to warrant regulation.

The Board has made some use of non-regulatory guideline documents as an alternative to the enforceable requirements in the Code. The ABCB Chairman provided information on one example:

The ABCB has been responsible for the preparation of a number of guidelines for the information of industry, including a guideline for Fire Safety Engineers. Rather than a prescriptive regulatory approach, this guideline was complemented by the production of the Code of Practice for Fire Safety Design, Certification, and Peer Review by the Society of Fire Safety Engineers Australia. (sub. 4, p. 6)

Voluntary guidelines have also been developed by the Board on durability and, in response to the Thredbo landslide disaster, in relation to construction in areas at risk of landslips. The Australian Attorney-General's Department (Emergency Management Australia) recommended that the ABCB give priority to developing further comprehensive guidelines for building in areas susceptible to other natural hazards, such as high winds, storm, cyclone, flood, bushfire and earthquake (sub. 43, p. 2).

The ABCB's work program for 2004-05 (sub. 50) indicates that guideline documents are also being developed on sound insulation (in association with the recent amendments to the regulatory requirements) and telecommunications access¹ and that other guideline documents on personal safety and waste management are on hold, due to resources being allocated to other projects.

Such guideline documents can educate builders, practitioners and consumers about good practices and the benefits of innovative design, potentially achieving a significant change in behaviour without the compliance costs associated with prescriptive legal requirements.

¹ The guideline will provide 'advice on physical access and spatial requirements for the efficient distribution of telecommunications to and within multi-tenanted buildings' (sub. 50, p. 11).

FINDING 9.3

Greater use by the ABCB of guidance/advisory documents could be a cost-effective mechanism for improving the performance of buildings.

9.4 National product certification

The BCA requires that materials used in construction must be fit for the purpose for which they are intended. Certification is one of a number of forms of evidence by which a product or system can be judged in terms of suitability for use.²

The ABCB developed the *Australian Building Products and Systems Certification Scheme* as a mechanism for products and systems to be certified as compliant against specific provisions of the BCA. It was established to overcome difficulties in gaining acceptance in the building industry of new and innovative products and systems. State and Territory Governments had implemented their own product certification schemes (see chapter 2), but a national approach was seen as desirable to achieve consistency and eliminate duplication.

Products or systems certified under the ABCB scheme received a Certificate of Conformity and mandatory legislative recognition in each State and Territory — ensuring acceptance by local councils, building surveyors and private certifiers. The ABCB Director would sign off the Certificate of Conformity once the product or system had been approved by each of the States and Territories through their representation on the Australian Certification Committee.

However, the Board decided to cease accepting new applications under the Scheme as of 1 November 2003. The Scheme has been disbanded because of the difficulties inherent in getting approval in all Australian jurisdictions. Only nine products/systems achieved certification during the life of the Scheme. Ronald Swane commented:

National product certification has had a chequered history within the ABCB largely because of a position taken by some State and Territory Administrations and their desire to retain the right of veto over the acceptance of new building products and systems. (sub. 12, p. 2)

In principle, any intractability would normally be addressed by mutual recognition obligations. Under the Mutual Recognition Agreement (MRA) between Australian governments and the Trans Tasman Mutual Recognition Arrangement (TTMRA) between Australian and New Zealand governments, any product certified as compliant with building requirements in one jurisdiction should be able to be

² See clause A2.2 of the BCA.

lawfully sold in any other jurisdiction. However, in practice there are some important obstacles to realising the benefits of mutual recognition. These were identified in the Commission's *Evaluation of the Mutual Recognition Schemes* (PC 2003b):

- First, the legislation implementing the MRA and TTMRA has been interpreted so as to not include the *use of goods* — ‘while a good can be sold in all participating jurisdictions, local regulations may prevent its use in particular jurisdictions, constituting an effective barrier to the mobility of goods’ (PC 2003b, p. 238).
- Second, the relatively low level of awareness of mutual recognition obligations/opportunities amongst regulators, industry and consumers has been an obstacle.

The Commission's report proposed that a cross-jurisdictional body be established to review, based on complaints, the scope for mutual recognition to be expanded to include regulation on the use of goods. The ten governments are still considering action in this area and this might lead to a mechanism for ensuring the mutual recognition for use of certified building products and systems.

The Laver Review recommended that the ABCB cease to undertake product certification, but instead establish certification criteria and recognise appropriate product accrediting bodies to perform the tasks (Laver 2000, p. 2).

The ABCB is currently in the process of developing a new third party building products and systems certification scheme. Under the new *CodeMark Scheme*, independent certification bodies, accredited by the Joint Accreditation System of Australia and New Zealand (JAS-ANZ), will assess and certify products and systems against provisions of the Code. Documentation for the Scheme is currently being finalised, with implementation expected to take place early in 2005 (ABCB pers. comm., 9 November 2004). The ABCB Chairman submitted:

Moves are ... under way to introduce a privatised system of national product certification in collaboration with NZ to remove the duplication involved in the existing system that involves approval processes in eight jurisdictions. (sub. 4, p. 49)

The ABCB, in its Work Plan for 2004-05, outlined the following aims for the CodeMark certification scheme:

- Is responsive to Government and Industry needs for a reliable, timely and cost effective source of recognition of compliance of products/systems with the provisions of the BCA.
- Provides Governments with the necessary degree of confidence to endorse the proposal for industry organisations to deliver this service to the broader industry.
- Is commercially viable for participating industry organisations. (sub. 50, p. 14)

One of the objectives of the new Trans-Tasman Building Regulatory Reform Council is to ensure the development and implementation of product certification schemes in Australia and New Zealand that are consistent, as far as practicable (see box 8.4).³

Product certification can be a useful mechanism for signalling that a product has certain minimum performance characteristics. There are many examples of voluntary certification schemes operated by industry. Businesses generally apply for certification of their product so that users have a degree of assurance that the product is ‘fit for purpose’ and so that consumers perceive it as superior to competing non-certified products in the marketplace. The National Fire Industry Association (NFIA), recognised the following reasons why a manufacturer might seek product certification:

- Protecting or insuring against liability in the market place;
- An exercise in risk management if the product/system is approved and certified by a third party and minimises risk of selling a product/system with liability issues;
- Best practice within a company requires testing of products/systems, therefore appraisal/certification is the logical next step;
- Third party substantiation on performance of product, providing confidence for manufacturer and building certifier in product application;
- Business decisions based on marketing advantage (some major customers placing importance on certification to the conformity level);
- New company or product requiring credibility in the market place;
- Sense of achievement, credibility or prestige of having successfully completed a rigorous process of certification ... (sub. 3, pp. 3–4)

BPIC (sub. 23, pp. 32–33) saw a national certification system as allowing recognition of innovative building solutions between amendments to deemed-to-satisfy solutions — which can be slow to reflect the latest building system developments. BPIC also argued that government sanctioning of certified products is critical to achieving national and international credibility and supported the work of the ABCB on a joint system with New Zealand.

NFIA recommended independent third party product certification and marking for building and construction products used in the Australian market. Further, NFIA suggested that the ‘minimum acceptable’ safety rationale for BCA standards, justified mandatory certification (sub. 3, p. 4).

³ In New Zealand, the recently enacted Building Act 2004 inter alia ‘introduces a new product certification regime for building products and systems’ (sub. 5, p. 5).

The Commission sees value in a joint Australia/New Zealand product certification scheme, based on mutual recognition of products and systems certified by accredited government or industry bodies. Any scheme should be voluntary, since mandatory certification of products can become a barrier to entry for new products and would also contravene the spirit of mutual recognition. The Commission's view is that incentives exist for firms to voluntarily apply for certification and that a non-mandatory scheme combined with an education campaign would be a lower cost, more efficient solution.

9.5 International cooperation and collaboration

The Board is involved in various international cooperation and collaboration activities. These activities contribute to the achievement of objective 8 of the IGA 'to create an efficient regulatory environment to encourage an internationally competitive building and construction industry'. Many other activities of the ABCB of course directly or indirectly impact on the international competitiveness of the industry.

Some of the major recent international liaison activities of the Board are listed in box 9.2. Collaboration with New Zealand, including joint standards development and the recent Trans-Tasman Building Regulatory Reform Council initiative were discussed in chapter 8. That chapter also suggested that the ABCB might take a more active role in international standards forums.

The Board's international activities can have a number of potential benefits for Australia, including:

- providing information on leading overseas regulatory practice and international construction trends
- contributing to a better understanding of the potential impacts of regulatory reform, particularly in relation to performance standards
- assisting in reducing trade barriers and enhancing export opportunities
- access to innovative research and technology
- improving relations with trading partners and contributing to the economic development of countries in our region.

The South Australian Government highlighted the value of these activities:

The overseas linkages that are being developed by the ABCB are ... important for trade opportunities by improving competitiveness and penetration into overseas markets. (sub. 36, p. 13)

Box 9.2 ABCB international cooperation and collaboration activities

Recent activities of the Board directed at improving international linkages, include:

- Bilateral regulatory cooperation, especially with Japan and New Zealand:
 - Trans-Tasman Building Regulatory Reform Council (see box 8.4);
 - Recognition as the first evaluation body outside Japan to assess building products and systems under the Building Standard Law of Japan; and
 - Assistance with the development of a performance-based fire code for Hong Kong.

- International code-writing collaboration;
- Cooperation between Australia, Canada, United States and New Zealand on the development of International Fire Engineering Guidelines;
- Involvement in international conferences;
- Membership of international committees, for example the multi-country Inter-Jurisdictional Regulatory Collaboration Committee and International Council for Construction Research and Innovation; and
- International market access initiatives.

Sources: Subs. 4 and 50.

While the Commission recognises that the ABCB's pursuit of overseas linkages has generated benefits, the priority assigned to these activities may need to be reviewed in light of pressing demands for resources in other areas (see chapter 11).

10 Governance issues

This chapter considers the effectiveness and efficiency of current governance arrangements for national reform of building regulation. Overall, while there is strong support from interested parties for the Australian Building Codes Board (ABCB) and its role, the Commission has identified certain aspects of governance where improvements could be made.

The chapter is focused on assessing broad institutional arrangements, rather than directly addressing any particular ABCB objectives.

10.1 Issues raised

There is widespread support for continuation of an intergovernmental body to further progress national building regulatory reform. This has been the finding of previous reports and is evident from submissions to this study:

There is unqualified support for the continuation of a national organisation such as the Australian Building Codes Board to maintain the process of building regulatory reform in a nationally uniform manner. (NSW Building Regulations Advisory Council (BRAC) — Industry Members, sub. 25, p. 1)

The broad objectives behind the Inter Governmental Agreement (as amended in 2001) to establish the Australian Building Codes Board has delivered certainty and efficiency to the building industry as well as benefits to the community and must therefore continue. (Master Builders of Australia (MBA), sub. 24, p. 1)

Indeed the need for this type of organization is increasing rather than diminishing with the nationalisation of building processes and the growing awareness of the importance of viable international export markets ... (Building Products Innovation Council (BPIC), sub. 23, p. 13)

Further, many participants considered that current institutional arrangements were working quite effectively. The South Australian Government, for instance, recommended that the ABCB should continue:

The ABCB has worked well to deliver the reforms to date and if all the parties to the Inter Government Agreement are to retain their commitment to national consistency then it is considered that the ABCB should continue in its present form. (sub. 36, p. 7)

The Queensland Government submitted that the ABCB ‘provides an effective vehicle for all governments to collaborate and pool resources for the benefit of the community and industry as a whole’ (sub. 41, part 1, p. 1) and further stated:

... the ABCB has been effective in achieving its mission to develop and maintain appropriate standards of health, safety and amenity. (sub. 41, part 1, p. 1)

Similarly, the Department of Housing and Works in Western Australia (sub. 14) considered that there are strong grounds for the IGA to be maintained to enable continuation and refinement of national building standards:

... the Australian Building Codes Board and the Building Code of Australia have delivered significant reform to the building industry and have successfully engineered a national approach to the maintenance and development of building standards in Australia. (p. 2)

... the ABCB has worked effectively to produce and manage the BCA and associated reforms. ...

Its regulatory policy developmental processes are transparent, accountable, thoroughly researched and widely accepted. (p. 3)

The Victorian Government regarded the ABCB as providing ‘an appropriate model for an ongoing national approach to building regulation’ (sub. 51, p. 1), while the Tasmanian Building Regulation Advisory Committee (BRAC) went further, stating that:

No other institutional model is known that has been as effective as the ABCB model. The ABCB has been delivering. (sub. 29, p. 5)

There was also substantial support for the Board from amongst private sector stakeholders. The Green Building Council of Australia (GBC), for example, supported the continuation of the ABCB beyond 2005. The GBC considered that:

The Australian Building Codes Board has made a significant contribution to the design, construction and development industries and is the right vehicle to fund, facilitate and coordinate a national regulatory framework to continue the reform of building regulation.

The Inter Government Agreement on building regulation reform objectives continue to be relevant and needed. The Australian Building Codes Board and the Building Code of Australia has produced gains for the industry and the Australian economy. (sub. 11, p. 3)

Notwithstanding the widespread support for continuation of the Board, many participants had concerns about certain aspects of the current institutional arrangements and made suggestions for improvements. These suggestions varied from minor refinements to processes, through to quite major reforms to the IGA and the Board’s operations.

The Housing Industry Association (HIA), BPIC and the Property Council of Australia (PCA) called for substantial changes to institutional arrangements, including the establishment of a new statutory body ('Australian Building (or Building Standards) Commission' or 'Building Australia') to replace the ABCB:

... a revised Inter Government Agreement and restructured Australian Building Codes Board is essential to the long-term national and international success of the Australian building industry and the associated benefits to the broader community. (BPIC, sub. 23, p. 2)

[BPIC recommend] ... the ABCB become a statutory commission, ... underpinned by mirror national and state legislation and with a revamped independent Board and a Ministerial Council. (BPIC, sub. 23, p. 4)

HIA considers that the IGA is not achieving its objectives and that a new agreement should be instituted. The new agreement should establish an organisation that has legislative powers to effectively fulfil the objectives of the IGA. (HIA, sub. 6, p. 3)

The Property Council ... supports the establishment of a revamped ABCB.

This should be a statutory body with responsibility over a broad range of construction policy issues ...

The new body could be known as Building Australia and would report to a Ministerial Council established under the auspices of COAG. (PCA, sub. 52, p. 34)

In order to address the terms of reference, the Commission has assessed alternative models for cooperation between Australian governments. Some of these provide insights and lessons (both in terms of what can be successful and what may not work well) when considering possible revisions to governance arrangements for national building regulation reform. The key characteristics of three of these alternative models — Food Standards Australia New Zealand (FSANZ), National Transport Commission (NTC), and National Occupational Health and Safety Commission (NOHSC) — are summarised in table 10.1. For comparison, the current ABCB governance arrangements are also included in the table. The detailed alternative institutional arrangements proposed by BPIC and HIA drew, in particular, on the FSANZ and NTC models.

The main issues raised by participants with respect to the institutional or governance arrangements for pursuing national building regulatory reform, related to:

- involvement of the Australian Government (section 10.2);
- composition of the Board and committees (section 10.3);
- funding (section 10.4);
- level of commitment to national consistency (section 10.5);
- authority of the decision-making body (section 10.6); and

-
- independence of the decision-making body and the secretariat (section 10.7).

These are discussed in the following sections. The salient aspects of the alternative models in table 10.1 are drawn on where relevant.

While the Commission makes some recommendations for improving governance arrangements, more fundamental structural changes are not judged to be justified, particularly in light of the disruption and other transition costs that are likely to be associated with such changes. It is probable, for example, that progress in implementing key elements of the Board's current work program would be interrupted during the transition to a new institutional framework. While these would in the main be short-term costs, they would be borne at a time when there is significant pressure on the Board to expedite national reforms.

10.2 Involvement of the Australian Government

There appears to be unanimous support for the ongoing involvement of the Australian Government in progressing national building regulatory reform (through the ABCB or another forum for intergovernmental cooperation). Participants see support from the Australian Government as critical to the continuing success of a national system.

The Australian government has provided substantial support to building regulation reform and it is essential that it continue to do so. The scope of reform implemented to-date would not have been possible without the government's leadership and efforts to unite the States and Territories. (HIA, sub. 6, p. 4)

Without the leadership of the Australian Government it is likely that significant regulatory reform achieved to-date will be progressively unravelled by State and Territory jurisdictions due [to] a loss of focus on a national agenda. (HIA, sub. 6, p. 23)

In order to maintain a truly national approach it is critical that the Commonwealth continues to participate in, and support, the functioning and funding of the ABCB. (Western Australian Government Department of Housing and Works, sub. 14, p. 4)

Without a strong financial commitment on the part of the Commonwealth, it is difficult for us to see how the much-needed consistency can be achieved. If left to themselves, the States have shown that they do not have a good record of pursuing national consistency and standards. (Airconditioning and Mechanical Contractors Association (AMCA) of Victoria, sub. 16, p. 7)

... continuing Australian Government involvement in the future of the ABCB is critical, particularly given that recent major ABCB projects have provided a means for delivering nationally consistent government policy initiatives including energy efficiency, access, aged care and a more sustainable built environment. (MBA, sub. 24, p. 1)

Table 10.1 **Key characteristics of alternative governance models**

	<i>ABCB</i>	<i>FSANZ</i>	<i>NTC^a</i>	<i>NOHSC^b</i>
Role	The Australian Building Codes Board's primary role is the development and maintenance of a nationally consistent approach to technical building requirements, embodied in the Building Code of Australia (BCA).	Food Standards Australia New Zealand is responsible for developing and maintaining uniform food standards for adoption in Australia and New Zealand.	The National Transport Commission is responsible for developing, monitoring and maintaining uniform or nationally consistent regulatory and operational reforms in the land transport area (road, rail and intermodal).	The National Occupational Health and Safety Commission leads and coordinates national efforts to prevent workplace death, injury and disease.
Legal basis	Inter Government Agreement (1994 and amended 2001) by the Australian and State and Territory Governments.	<ul style="list-style-type: none"> • <i>Food Standards Australia New Zealand Act 1991.</i> • Intergovernmental agreement (IGA) by the Australian and State and Territory Governments — Food Regulation Agreement 2002. 	<ul style="list-style-type: none"> • <i>National Transport Commission Act 2003.</i> • IGA by the Australian and State and Territory Governments. 	Established by the <i>National Occupational Health and Safety Commission Act 1985.</i>
Commitment to uniformity	IGA commits States and Territories to develop a nationally consistent regulatory framework and building regulation that is 'as uniform as possible'. Jurisdictions have freedom to deviate from the Code.	IGA commits the States and Territories to adopt, without variation, food standards that have been approved by the Australia New Zealand Food Regulation Ministerial Council (ANZFRMC). Australia and New Zealand are working towards the establishment of harmonised food standards in some areas.	All governments are required by the IGA to use their best endeavours to implement reforms, once approved by Ministers of the Australian Transport Council (ATC).	The national standards and other documents that NOHSC develops are of an advisory and guidance nature only. They need to be adopted by State and Territory governments before they have any legal force. NOHSC processes are aimed at achieving greater consistency, rather than national uniformity.

(continued next page)

Table 10.1 (continued)

	<i>ABCB</i>	<i>FSANZ</i>	<i>NTC^a</i>	<i>NOHSC^b</i>
Political authority/ Ministerial involvement	Board has the authority to make final decisions on the content and coverage of the Code, but has no control over adoption. No Ministerial Council involvement in approving decisions.	Ministerial Council sets policy and approves decisions — FSANZ has responsibility for developing standards and variations to standards, but ANZFRMC may then reject, amend or seek a review of any standard. FSANZ must have regard to policy guidelines set by ANZFRMC when it develops or reviews food standards.	Ministerial Council sets policy and approves decisions. All outputs of NTC put forward as recommendations to ATC, which can then approve them.	Ministerial Council sets policy and approves decisions. The national standards, codes and other documents developed by NOHSC must be approved by the Workplace Relations Ministers' Council.
Independence	Board established under IGA as a (non-statutory) decision-making body. Secretariat is a unit within Australian Government Department of Industry, Tourism and Resources.	FSANZ is an Australian Government independent statutory authority. The Australian Government Department of Health and Ageing is responsible for providing the Secretariat to the Ministerial Council.	The Commission is an independent statutory body. NTC Office is a Statutory Agency, staffed by Australian Public Service and non-public service staff.	The Commission is an Australian Government independent statutory authority. NOHSC Office is a Statutory Agency, staffed by officers of the Australian Public Service.
Representation	14 person Board: <ul style="list-style-type: none"> • Australian Government representative; • Senior officers responsible for building regulation in each State and Territory; • Representative of the Australian Local Government Association (ALGA); and • Four representatives of the building and construction industry. 	12 person Board, comprising the FSANZ Chief Executive Officer (CEO), representatives from government, the National Health and Medical Research Council and other members drawn from specialist areas relating to food and consumer rights. All members are part-time, except the FSANZ CEO.	Five part-time Commissioners appointed on the basis of relevant expertise and skills, rather than as representatives of particular stakeholder groups. Chief Executive (Head of Office) is also a Commissioner.	Tripartite body with 18 members: <ul style="list-style-type: none"> • Chairman; • CEO of NOHSC; • Three members nominated by the ACTU; • Three members nominated by the ACCI; • One member nominated by Australian Government Minister for Employment and Workplace Relations;

Representation
(continued)

- One member nominated by the Australian Government Minister for Health & Ageing; and
- One member nominated by each of the State Premiers and Territory Chief Ministers (eight in total).

Advisory committees

The Building Codes Committee (BCC) is the peak technical advisory body to the Board. Membership comprises:

- ABCB Executive Director (Chair);
- Officials from Australian Government and each State and Territory administration;
- ALGA representative; and
- Three industry representatives.

Various working groups provide advice to the BCC. Other ABCB advisory committees include:

- Special project committees (eg energy efficiency, access, future Code) with government, industry and community representatives; and
- Industry Liaison Committee.

Tripartite involvement in the decision-making process is accommodated by way of advisory bodies reporting to the Ministerial Council. Also assisting the Ministerial Council are the:

- Food Regulation Standing Committee, comprising heads of department for which the respective members of the Ministerial Council have responsibility, as well as the ALGA;
- Development and Implementation Sub Committee, comprising heads of the appropriate Australian and New Zealand inspection and enforcement agencies, a representative of FSANZ, and the ALGA; and
- Technical Advisory Group, comprising senior food officers from the jurisdictions and chaired by FSANZ.

The NTC is supported by a number of committees and other consultative forums that provide advice on current issues and reforms. These include:

- Road and Rail Transport Agency Chief Executives;
- Road Transport Industry Advisory Group;
- Rail Consultative Forum;
- Bus Industry Advisory Group;
- Motor Vehicle Environment Committee; and
- Specialist technical committees and groups.

Some of these committees comprise officials only, while others provide an opportunity for industry and other community groups to have input into policy development.

NOHSC is advised by various committees and subcommittees with terms of reference covering specific areas of NOHSC's functions, for example:

- Chemical Standards Sub Committee;
- Research Advisory Panel; and
- Skills Development Sub Committee.

Committees are tripartite and include representatives of governments, the ACTU and the ACCI. Representatives of professional organisations and community groups, or other experts, may also be included on some committees.

Continued on next page

Table 10.1 (continued)

	<i>ABCB</i>	<i>FSANZ</i>	<i>NTC^a</i>	<i>NOHSC^b</i>
Transparency/consultation	Broad and open consultation. Economic evaluation (regulatory impact analysis).	Decision making based on: scientific risk assessment; RIS analysis of economic and social impacts; and broad community consultation.	Broad and open consultation and rigorous RIS analysis of all costs and benefits, including social costs.	Before declaring a national standard or code of practice, NOHSC must invite and consider public comment. Wide use of RISs.
Delivery mechanisms	BCA, guidelines, training and education strategies.	Standards, codes of practice and guidelines.	Mainly national legislation (template, model or occasionally drafting guidelines). Other mechanisms include: statements of policies; guidelines; codes; business rules; or training and education packages.	National standards and codes of practice which are forwarded to the individual jurisdictions for implementation.
Funding/resourcing	Budget of approximately \$6m (2003-04). Australian Government (\$1m); State and Territory Governments (\$1m — shares based on building activity); cost-recovery (\$3.2m — mainly sales of BCA); and AGO (\$0.5m). Around 35 staff.	Funded by the Australian and New Zealand Governments (\$13.4m and \$1.3m, respectively in 2003-04) and from fees for services it performs. Around 120 staff. Australia New Zealand Food Standards Code and many other outputs available free on-line.	Budget of approximately \$7m (2003-04). States and Territories contribute 65 per cent according to vehicle registrations, and the Australian Government 35 per cent. Around 25 staff. No charges for access to standards.	Funded by the Australian Government. Budget of approximately \$15m (2003-04) and staff of around 90. National standards and codes of practice available free on-line.

^a The NTC replaced the National Road Transport Commission in January 2004 when rail and intermodal transport matters were added to its regulatory responsibilities. Intermodal transport is the interaction of operations between transport modes. Examples include the transfer and delivery of freight to its destination by road/rail, road/rail/seaport or road/rail/airport. ^b The Prime Minister recently announced that NOHSC is to become part of the Department of Employment and Workplace Relations (http://www.pm.gov.au/news/media_Releases/media_Release1134.html).

Sources: Based on various annual reports, and other documents and information accessible from the web sites of the relevant organisations — www.abcb.gov.au, www.ntc.gov.au, www.nohsc.gov.au and www.foodstandards.gov.au.

The ABCB Chairman said that the Australian Government has a direct interest in building regulation:

... because of the importance of building regulation to microeconomic reform and because of the national impact of building regulations on industry and the community as a whole. (sub. 4, p. 7)

BPIC also considered that the Australian Government has much to gain from a successful national system, particularly in relation to:

... expediting important national policy agendas such as sustainability and disability access ... (sub. 23, p. 12)

The nature of building regulation in Australia, in particular involving all levels of government, warrants direct involvement by the Australian Government in building regulation reform.

FINDING 10.1

The involvement and support of the Australian Government is critical to the continuing success of building regulation reform.

10.3 Composition of the ABCB and committees

There was strong support for *State and Territory Government representation* on the Board. Given that the ABCB is the final decision maker on Code amendments, rather than a Ministerial Council, it is essential that governments have direct representation at the Board level. This is crucial to ensuring that ABCB decisions serve the public interest, and that jurisdictions have ‘ownership’ of outputs and therefore a level of commitment to their adoption. It also increases the likelihood of acceptance and cooperation by administering authorities and practitioners.

Some participants, however, raised specific issues in relation to government representation, including: the frequent changes in the nominated position holder and/or delegation of responsibility for attendance; and the suitability (expertise and/or authority) of delegates.

The PCA commented:

... a new Inter-Governmental Agreement (IGA) must emphasise the need for representatives to attend Board meetings regularly and consistently ...

Too often over the past few years the work of the Board has been hampered by a constant stream of changing government representatives, which is disruptive and results in a loss of corporate knowledge; ... (sub. DR93, p. 6)

In relation to suitability, MBA believes that ‘State and Territory representatives should have direct qualifications and experience in the building industry’ (sub. DR82, p. 14). HIA suggested that a consequence of the integration of building and planning regulatory regimes in some jurisdictions has been a change in the suitability of their Board representation. HIA stated:

... in a regulatory environment in which States and Territories predominantly maintained separate Building and Planning legislative regimes ... the respective heads of government bureaucracies responsible for their jurisdiction’s building regulation regimes became members of the Board, ...

[After the integration of] building and planning regimes into one bureaucratic portfolio ... in most instances, planning administrators headed the joint bureaucracy. These administrators did not necessarily have the required level of understanding of the operation of the building industry, or the likely influence of regulatory reform on the industry.

Revamping the membership of the Board by requiring the States and Territories to be represented by practitioners who are held in high regard within the industry, irrespective of whether they are public or private practitioners, would facilitate the effective operation of the ABCB. (sub. 6, p. 19)

On occasions, decision making by the Board may be compromised because of the lack of authority of government representatives, including an inability to present a ‘whole-of-government’ view.

The ABCB Strategic Plan calls for a “Board of Decision Makers”. This implies members should have the authority to commit their administrations to any decision reached by the Board (other than those matters requiring Ministerial approval) rather than needing to seek endorsement at higher levels in their own organisations. The effectiveness of the ABCB is founded on this principle and generally it has worked well but periodically the situation needs to be reinforced. (ABCB Chairman, sub. 4, p. 26)

... there needs to be greater commitment to the ABCB from all levels of government — government representatives should be sufficiently senior to be able to speak from a ‘whole-of-government’ perspective. (PCA, sub. DR93, p. 6)

In contrast with many intergovernmental standard-setting bodies, the ABCB has direct *industry representation* on the peak decision-making Board. There appears to be general support for this approach. The Western Australian Government Department of Housing and Works identified some of the advantages of direct industry involvement:

Input from independent members with considerable industry experience strengthens the quality of discussion and the robustness of decisions, and should continue. (sub 14, p. 4)

Currently, industry representatives on the Board are appointed by Ministers from nominations provided by the Australian Construction Industry Forum (ACIF). AMCA of Victoria commented on this selection process:

... industry should select and decide on its representative to be the member of the ABCB. The Minister should have the power to refuse the nomination, but this power should only be exercised after objective reasons are given to the industry as to why the nomination is not acceptable. (sub. 16, p. 7)

AMCA were of the view that ACIF is the appropriate body to provide the industry nomination and, similarly, MBA 'would express real concern with altering the current process for the selection of industry representatives to the Board' (sub. DR82, p. 14). On the other hand, some believe that ACIF does not adequately represent important elements of the building industry and that bodies that are not members of ACIF should also have the opportunity to nominate candidates for Board membership:

The Housing Industry Association (HIA), one of the peak industry bodies, is no longer a member of ACIF so that under existing IGA industry membership appointment arrangements, it is unlikely to be able to put forward candidates. (ABCB Chairman, sub. 4, p. 26)

There is no demonstrable need for change to the structure or level of industry membership of the ABCB. However, consideration needs to be given to amending the selection procedure to ensure that peak building industry bodies can be represented. (Victorian Government, sub. 51, p. 5)

The Australasian Fire Authorities Council (AFAC, sub. DR79, p. 10) observed that representation on the Board 'seems to be limited to the "Design and Construct" sector of the industry'. AFAC considered that, for the purposes of selecting industry representation, a broader definition of 'industry' needs to be adopted 'to incorporate the wider spectrum of associated key stakeholders' such as fire and insurance industry interests.

Consumer and broader community interests are not directly represented on the Board or the Building Codes Committee (BCC). However, the special project committees set up to provide advice to the Board on particular issues all have 'community' representatives involved in their work. The involvement of government representatives is also an important mechanism for broader community interests to be taken into account.

The Victorian Government commented:

The ABCB's membership and program of consultation has enabled it to remain attuned to community expectations over time. (sub. 51, p. 2)

Nevertheless, the NSW Government considered that there is room for improvement in relation to ‘community engagement’ and flagged the possible need for increased community representation in committees and working groups (sub. 53, p. 9).

It would not be practical to have all interests directly represented on the Board or even its supporting advisory committees and working groups. This is due to the great diversity of interests and views, not only between broad groupings (for example, consumer, environmental or disability groups), but also within these groups. For example, within the broad category of consumers of building services, large well-informed purchasers of commercial buildings have different interests when compared with ‘mum and dad’ consumers of residential housing.

Increasingly, the reform agenda of the Board requires that a broader range of skills and expertise be drawn on in decision making. For example, environmental/sustainability issues intersect with ecology, human behaviour and public health considerations. This may have a bearing on the appropriate Board and committee representation in the future. (With respect to government participation, this may also necessitate cross portfolio coordination — see 10.6 below). The Victorian Government submitted:

Should sustainability become a major and ongoing item on the ABCB agenda some consideration could be given to enhancing expertise of the ABCB in the field of sustainability. (sub. 51, p. 5)

Several submissions sought a broadening of the membership of the ABCB or its committees, to better reflect the views of:

- consumers (or as an alternative to Board membership, more active consumer consultation via focus groups or formalised consultation) (Queensland Government, sub. 41, part 1, p. 5 and Western Australian Department of Housing and Works, sub. 14, p. 4);
- the ‘engineering construction’ sector (comprising Air-conditioning, Fire protection, Electrical and Plumbing sectors) (National Fire Industry Association (NFIA), sub. 3, p. 4);
- the renewable energy industry and those involved in energy-efficient building design, products and systems (Australia and New Zealand Solar Energy Society (ANZSES), sub. 1, pp. 4, 6);
- people with disabilities (Disability Council of NSW, sub. DR68, p. 4);
- the insurance industry (Insurance Council of Australia (ICA), sub. 38, p. 9);
- fire authorities (South Australian Government, sub. 36, p. 7), fire and emergency services (AFAC, sub. 28, p. 18); and

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- the fire protection industry (Alliance for Fire and Smoke Containment, sub. 31, p. 8).

In addition, some participants questioned whether more active involvement by the New Zealand Government — beyond the current observer status on the BCC for the NZ Building Industry Authority — might be appropriate, particularly if there is going to be closer cooperation between the Australian and New Zealand Governments in the development of building regulation.

On the other hand, some participants thought that current membership is appropriate. MBA, for example, considered that the current mechanism:

... works well and gives those stakeholders who are not on the Board or the relevant committees the opportunity to provide meaningful input. (sub. 24, p. 6)

While increasing Board membership would bring a wider range of viewpoints to the negotiating table, it may reduce the effectiveness and efficiency of the Board's operations. For this reason, MBA are 'very concerned' about proposals which seek to broaden membership:

We believe that extending the size of the Board would make the whole process unwieldy ... it would also work against the ability of the ABCB to respond in a timely manner. (sub. 24, p. 6)

Similarly, the ABCB Chairman saw 'no compelling reasons to increase Board numbers' and considered that representation chosen by designated industry organisations is undesirable 'in view of the large number of bodies likely to seek nomination' (sub. 4, p. 26).

Some suggested that it would be appropriate to have greater balance between private and government representation on the Board and committees (that is, increase the number of non-government members). Conversely, others called for greater government representation, including additional Local Government representation — recognising that this level of government is largely responsible for enforcing compliance with the Code.

The Queensland Government had concerns about proposals to increase the number of non-government representatives:

The Board is accountable to Australian governments to develop building regulations, which reflect public policy objectives. Additional industry representation may reduce the capacity of governments to determine these objectives, particularly given the scope of second generational issues expected to be addressed by the BCA in the future. (sub. 41, part 1, p. 4)

Even so, in any decision-making body that has authority to influence regulations and, in turn, affect the commercial or other interests of industry or other stakeholder groups, there is a risk of government representatives being ‘captured’ by those interests. For the Board to work effectively, it is essential that government members understand the interests of stakeholders and that they develop close professional working relationships with industry members. However, it is also vital that any decisions made by Board members reflect the broader community interests, not those of any particular sector.

For non-government members, irrespective of the selection process, once appointed there must be a clear expectation that they are to exercise broad objective judgments, rather than presenting a view that reflects only the interests of the organisation or sector they are nominally representing.

The Western Australian Department of Housing and Works pointed out that:

... this type of board works most effectively when members are not seen to represent a particular body or sectional interest, but rather are chosen for their individual knowledge and experience. With ABCB decisions being made by mixed industry and jurisdictional representatives, it can be argued that the role of the jurisdictional representatives is more that of technical and administrative experts, with strong understanding of their jurisdictions’ issues, rather than as persons representing a formal jurisdiction view. (sub. 14, p. 4)

And the ACT Government submitted:

Any proposals for changes to industry representation on the ABCB or its successor should recognise the principle that representatives must speak for industry as a whole, not simply the group with which they are associated. (sub. 48, p. 4)

The above discussion suggests that a number of factors need to be considered when deciding on the appropriate composition of the Board and its committees. These include:

- the need for governments to ensure representation by officials at an appropriately senior level, able to present a whole-of-government view and with the authority to commit their administration;
- the value of continuity of representation (delegation of responsibility for attending meetings should be kept to a minimum and, for at least one meeting a year, the most senior people from each jurisdiction should attend to agree on strategic plans, priorities, budgets etc);
- as a general principle, members should be appointed as independent advisors on the basis of their knowledge and expertise, rather than as representatives of nominating organisations;

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- if the current model of industry representation continues, appointments should as far as possible reflect the interests of all elements of industry (including small and medium-size enterprises), and the nomination of industry representatives on the Board should not be the exclusive right of ACIF; and
 - although it may not be practical to have direct representation of all community interests on the Board:
 - government members should represent consumer and broad community interests; and
 - technical committees and specific project committees provide greater scope for special interests to be represented, for example, in relation to access for people with disabilities, or environmental issues. Even so, interest groups are many and diverse and direct representation for all is unlikely to be feasible.

FINDING 10.2

Overall, the composition of the ABCB membership has been appropriate for the role of the ABCB to date. As the Board's priority should be the public interest, broadly defined, it is appropriate that government representatives are in the majority and that they represent a whole-of-government position.

Technical Validation Panel

As noted in chapter 2 and further discussed in chapter 8, the ABCB Code development and amendment processes reflect a tiered decision-making system. Utilising expert technical working groups and consultative committees allows the time of the Board to be allocated in a more cost-effective manner. However, it has been suggested that there is scope for further efficiencies by asking expert technical committees reporting to the BCC and the Board to undertake more of the technical development and review work.

In essence, code development should be undertaken by expert panels comprising individuals who are expert in the respective field of design and construction being addressed, together with experts in code writing. This procedure has the potential to reduce inept input to the initial drafting process, but still allows all individuals and organisations the subsequent ability to offer comment. (HIA, sub. 6, p. 26)

... Panels would comprise experts in their respective fields called together on a need-be basis to develop draft building regulations for specific issues.

Experts could be drawn from private practice, public practice or specialist organisations. (PCA, sub. 52, p. 13)

In a move in this direction, the ABCB has recently trialled the establishment of a Technical Validation Panel (TVP). The purpose of the TVP is to undertake reviews of detailed technical matters, freeing up BCC resources to concentrate more on priority regulatory policy and administrative issues (see box 10.1).

Box 10.1 Technical Validation Panel

The ABCB provided the following information on the Technical Validation Panel (TVP).

The TVP has been trialled on BCA 2004 and BCA 2005 to complement the work of the BCC and the ABCB Office. Upon completion of BCA technical change proposals by the ABCB Office, project specific working groups from the TVP have reviewed the technical content. The purpose of the TVP review is to free up BCC resources from the increasingly time consuming review of detailed technical matters and to allow the State and Territory Administrations to concentrate on priority regulatory and administrative issues, both at a national and local level.

TVP members, comprising Building Certifiers, Engineers, Architects, Builders, and Access, Acoustic and Energy Consultants were nominated for their experience and expertise. The Office coordinated the TVP and associated working groups.

These new arrangements are to be evaluated in 2005 to determine if they benefit the Community and Industry by providing further certainty in the amendment cycle, BCA amendments that are relevant and timely, and confidence that technical changes have been subject to quality assurance checks that are consistent with industry and international practice. On completion of the evaluation, recommendations will be developed and forwarded to the Board for consideration.

Source: Sub. 50, pp. 8–9.

The Queensland Government considered that the BCC ‘could perhaps have a stronger role in policy development and co-ordination’ and supported the establishment of a TVP (sub. 41, part 1, p. 4).

While the results of the trial will not be evaluated until 2005, in principle such a reform of governance arrangements has the potential to further enhance the efficiency of the ABCB’s operations. However, it is essential that all advisory committees adopt a rigorous community-wide cost-benefit framework when formulating their recommendations to the Board (or the BCC, in the first instance). This is especially important where governments are not represented on the advisory committee (as is the case with the TVP).

It is also essential that responsibility for accepting technical reform proposals rests with the BCC and ultimately the Board. This is consistent with the view of the Queensland Government:

... the role of the BCC in reviewing technical change proposals prior to Board sign-off needs to be retained. (sub. 41, part 1, p. 4)

The NSW Government also emphasised the importance of BCC consideration of proposals, expressing the concern that:

On occasions, due to the tight time frames associated with various proposals, issues and recommendations are being presented to the Board without being considered by the BCC beforehand, or the Board being made fully aware of the BCC viewpoint and the reasons for such. This has the potential to result in the Board not making fully informed decisions and doesn't fully facilitate the consultation process, in which the BCC members play a major role at both state and national levels. (sub. 53, p. 8)

10.4 ABCB funding

The ABCB is funded by the Australian, State and Territory Governments and through cost-recovery activities (mainly sales of the BCA). Under the IGA (Part IV(4.4)), the Australian Government provides half of the government contributions, currently \$1 million per annum over the five years to June 2005. The States and Territories collectively match the Australian Government contribution, with respective shares based on a formula related to their relative share of total Australian building approvals. In recent years, the Australian Greenhouse Office (AGO) has contributed funds to progress the Energy Efficiency project, with a total commitment to 30 June 2005 of \$2.3 million (see chapter 6).

In 2003-04, the contribution of the Australian Government and the States and Territories was \$2 million, the AGO also provided \$0.5 million and, in addition, gross funds from the sale of the BCA and related material were estimated to be \$3.2 million. (Cost recovery issues were discussed in some detail in chapter 8.) Further, as at 1 July 2003, the ABCB had accumulated cash reserves of \$3.7 million (sub. 4, p. 30).

MBA (sub. 24, p. 7) and the Tasmanian BRAC (sub. 29, p. 4) supported retention of the current co-funding model, as did the Western Australian Government Department of Housing and Works:

The current funding model works well as it proportionally allocates contributions based on a jurisdiction's level of building activity rather than a formula based on population. The contribution is not onerous and the ABCB office contributes the lion's share of operating funds and generates a significant amount of revenue from sales of the BCA. (sub. 14, p. 4)

The ABCB Chairman, however, considered that the relative contributions of State and Territory governments may need to be reviewed:

A case exists to reconsider the contributions of the smaller administrations who have benefited considerably from the ABCB but whose current contribution scarcely covers the cost of servicing them. (sub. 4, p. 46)

The Victorian Government submitted:

The option of a base contribution in combination with a pro rata contribution is recommended for serious consideration. (sub. DR91, p. 1)

The Commission considers that State and Territory contributions should at a minimum cover the costs associated with a jurisdiction's participation on the Board. Beyond that there is an argument for contributions to equitably reflect the *total* costs of servicing a jurisdiction. Such costs would include, for example, costs incurred by the ABCB Office associated with responding to requests for information and calls made to the BCA Telephone Advisory Service, that originate from that jurisdiction. To the extent that building activity levels were found not to correlate well with the total costs associated with servicing a jurisdiction, it could be appropriate to make a further adjustment to the funding formula to better reflect relative servicing costs.

The level of funding and resources available to the ABCB clearly impacts on its ability to function effectively and achieve its objectives. The Australian Sustainable Built Environment Council stated:

ABCB must be well resourced in order to keep ahead of trends ... [in] ... non-uniform building controls (for example local government one-off responses to sustainability). (sub. 22, p. 2)

The Australian Conservation Foundation argued that funding constraints have led to unnecessary prioritisation and 'a trade off between the Code development and the development of technical requirements' (sub. DR77, p. 9).

BPIC (sub. 23) also have significant concerns regarding current ABCB funding and resources, particularly when compared with intergovernmental bodies with similar responsibilities/functions such as the NTC:

The inability of the ABCB to meet its obligations under the Inter Government Agreement and introduce a broader reform agenda is directly related to resources ... (p. 10)

The NTC is also established by Inter Government Agreement ... and the signatories are committed to provide a budget of \$7 million per annum. (p. 36)

It would be fair to conclude that both the NTC and the ABCB would be providing similar cost savings to the community, if anything the ABCB is likely to deliver a higher return. However, the funding to the ABCB is in the vicinity of \$2 million per annum. (p. 37)

BPIC also drew a comparison with the Australian Government's commitment to Standards Australia International. BPIC submitted:

It is somewhat contradictory that a private company receives \$2 million in federal funds to participate in international forums, while the national building regulatory body

responsible for Australian and international code development and harmonisation receives \$1 million per annum in federal funding. (sub. 23, p. 37)

However, the Australian Elevator Association (AEA) had concerns that despite the apparent funding constraints, the ABCB built up substantial cash reserves:

Given the questionable state of the BCA and the poor quality regulatory efforts as exemplified by the Premises Standard proposals, it is very disappointing to see that the ABCB preserved resources rather [than] applying them more fully to improving the regulation and improving the quality and availability of other nonregulatory guidance information and other ABCB resources.

The ABCB has let down the stakeholders by not directing spare capacity towards providing greater benefits to our society sooner. Those spare resources could have advanced the timing and quality of several important programs including; the Premises Standard Access Code, its RIS, the internet web site, training, research, BCA21. (sub. 44, p. 11)

The complexity of the issues, rather than funding constraints, would seem to be the main explanation for slower than expected progress in some areas of the Board's work program, for example, the development of BCA 21.

RECOMMENDATION 10.1

The formula for determining the individual State and Territory Government contributions to the funding of the Board should be reviewed. An option to consider would involve a combination of a minimum base contribution and a pro rata component based on building activity.

The Australian Government has approved funding for the ABCB to the end of 2004-05. The question of ongoing Australian Government funding is addressed in chapter 11. (The ABCB's cost recovery approach and the appropriateness of charging for the BCA is assessed in chapter 8.)

10.5 Commitment to national consistency

The ABCB has made substantial progress towards national consistency in building regulations in Australia. However, as discussed in earlier chapters, significant variations still exist across jurisdictions and some study participants have called for reforms to institutional arrangements that would be more conducive to national consistency.

The benefits associated with greater consistency (or the costs of inconsistency) across jurisdictions are clear. However, complete uniformity of building regulation is unlikely to be a feasible or desirable goal. There are advantages associated with

providing some room for local jurisdictions to implement regulation in a manner that takes account of legitimate differences in local conditions and arrangements. Institutional arrangements need to strike a balance between, on the one hand, a strong commitment to consistency and minimising variations, and on the other hand, respecting jurisdictional sovereignty to allow for flexibility where it can be justified. State and Territory governments would not be willing to give up their constitutional right to ultimately determine building regulation within their jurisdiction. This was clear, for example, from comments by the Northern Territory Minister for Lands and Planning:

... notwithstanding the benefits of a national uniform building code, the Territory will continue to retain the power to vary provisions of the code in response to the particular circumstances of the Northern Territory, especially matters affected by climate and remoteness. (sub. 30, p. 1)

The Commission's view, however, is that jurisdictional differences need to be kept to a minimum and should only be permitted if they satisfy strict criteria agreed to by all governments and clearly stated in a revised IGA (see chapter 11). Further, local differences are more often regional, rather than jurisdictional, and can usually be accommodated within the Code through, for example, provisions for different climate zones (chapter 5).

The current IGA includes a commitment to work towards uniformity:

... a nationally consistent regulatory framework should be developed ... (Recital A)

(i) building regulation [to] be as uniform as possible between the States and Territories ...

(ii) additions or variations of technical provisions of the BCA by the States and Territories [to] be limited, so far as is possible ... (Recital A)

... to establish codes, standards and regulatory systems that are, as far as practicable:

- consistent between States and Territories; ... (Recital B, (i))

The language of the IGA, with phrases such as 'so far as is possible' and 'as far as practicable', gives jurisdictions freedom to deviate from the national Code. While most States and Territories automatically adopt, in the relevant building legislation, changes to the Code 'as amended', this is subject to the jurisdiction specific variations, additions and deletions that form part of the Code (see chapter 2).¹ In

¹ In Volume one, State and Territory variations are identified in the body of the BCA following the Clause that is being varied, while additions are contained in an appendix. In Volume two, variations and additions are contained in separate appendices for each jurisdiction and flagged in the body of the Code.

addition, any provision of the Code may be overridden by, or subject to, State or Territory requirements outside the Code.²

Some models of intergovernmental cooperation in Australia provide for a higher level of commitment to uniformity, for example the NTC — which in 2003 replaced the National Road Transport Commission (NRTC) — and FSANZ (see table 10.1).

Originally, the NRTC relied on national template legislation as the single delivery mechanism for implementing agreed national road transport regulatory reforms. Intergovernmental agreements specified that, once accepted by the Australian Transport Council, template legislation would be adopted by all the jurisdictions. The particular mechanism involved agreed legislation being passed in one jurisdiction (the ACT), with the other jurisdictions passing legislation via reference to the template legislation. The NRTC, however, found model legislation (allowing jurisdictions to enact the substance of reforms or to reference if they chose) and other delivery mechanisms to be useful and more appropriate in some circumstances (NRTC 2002).

In the food standards area, under the Food Regulation Agreement 2002, the States and Territories have committed to take such legislative or other steps as are necessary to adopt or incorporate standards developed by FSANZ (and accepted by a Ministerial Council) *without variation*.

Conversely, the Productivity Commission in its recent report on National Workers' Compensation and Occupational Health and Safety Frameworks (PC 2004a), found that the NOHSC model had been ineffective in achieving consistency in OHS regulation, partly because individual jurisdictions have too much discretion either to not implement or to modify national standards and codes developed by NOHSC and approved by the relevant Ministerial Council.

RECOMMENDATION 10.2

There should be a recommitment by governments, in a revised IGA, to the objective of consistency across jurisdictions for building regulation. State and Territory Governments should ensure that BCA amendments determined by the ABCB are automatically referenced in State and Territory legislation and that jurisdictional variations and additions are minimised.

The implementation of recommendation 10.2 could be pursued through the revised IGA (see chapter 11).

² In Tasmania, the Building Act (which adopts the Code) prevails over any other Tasmanian law relating to building or plumbing.

10.6 Authority of the decision-making body

The ABCB has the authority to determine BCA reforms without reference to a Ministerial Council. But, in practice, because most jurisdictions implement agreed revisions to the Code automatically, officials representing their jurisdictions on the Board may seek clearance from relevant ministers before supporting major proposals for reform. (Although as noted above, revisions to the Code may embody State and Territory variations or additions.) In the case of Queensland, for example:

The Building Act adopts the changes made to the BCA without further amendments. As such, the Chief Executive seeks the Minister's endorsement before agreeing to the proposal, and if necessary, the Minister may also seek Cabinet endorsement. (Queensland Government, sub. 41, part 1, p. 3)

As noted above in the discussion of Board representation, government members must be sufficiently senior so as to have the authority to commit their jurisdiction. If governments have previously committed to broad strategies and policy direction as well as the criteria and processes for decision-making by the Board, then ministerial clearance should be the exception, rather than the rule. For the Board to be an effective decision-making body, where proposals require ministerial clearance, sufficient advance notice should be given to allow clearance to be sought before commitment is required at an ABCB meeting.

Some interested parties called for more direct involvement by ministers. This could range from a less formal annual ministerial forum, limited to the determination of broad policy direction and strategic priorities, through to a formal standing Ministerial Council (meeting under COAG rules) that could also approve changes to the Code.

The latter approach would be similar to that used, for example, in the area of food standards and road and rail transport regulation. The Queensland Government submitted:

It is noted that unlike other co-operative arrangements between Australian governments, there is no relevant Ministerial Council overseeing the operation of the ABCB. The level of participation by governments, timeliness of amendments, and transparency and accountability may be improved through such a mechanism. (sub. 41, part 1, p. 5)

The ACT Government considered that '[t]here may be value in examining whether closer linkages could be established with an appropriate Ministerial Council, particularly with the Local Government and Planning Ministers Council' (sub. 48, p. 4).

There was strong support from some private sector bodies (BPIC, HIA and PCA) for the establishment of a formal Ministerial Council. In each case, the proposed institutional model envisaged that the major role for the Council would be the development of the broad policy agenda and setting of priorities.

The advantage of Ministerial Council oversight is that the ultimate decision-making body has greater authority and more clearly and directly reflects the commitment of State and Territory Governments. This can provide additional impetus to reform efforts, including perhaps making it more difficult for individual jurisdictions to implement variations to the Code:

It seems the best way to ensure jurisdictions commit fully to national reforms and standards is for a formal whole-of-Government commitment at Ministerial level. (Western Australian Department of Housing and Works, sub. DR90, p. 3)

The lack of state and territory Ministerial imprimatur for the ABCB means that some recommendations and Board proposals go unheeded by state and territory governments, despite stated commitment at the Council of Australian Governments to greater consistency. (PCA, sub. 52, p. 16)

However, possible disadvantages of a Ministerial Council model include:

- delays in reform associated with another layer of decision making — although the Commission notes that the Queensland Government submission considered that timeliness might actually improve; and
- reduced independence and authority for the Board — in practice, this may be more perceived than real, since government members are currently in the majority on the Board and, as noted above, would be expected to represent Government views and political priorities. (Strategies for achieving greater independence are discussed below.)

There would also be practical difficulties in establishing a Ministerial Council. First, there is no Australian Government Minister with direct responsibility for building regulation.³ Second, responsibility for building matters in each State and Territory jurisdiction typically crosses over more than one Ministerial portfolio.

When the original IGA was signed in 1994, it was envisaged that the Board would report to a Ministerial Council, at the time known as the Planning, Housing and Local Government Ministerial Council. The Council was responsible for approving annual budgets and the appointment of industry members to the Board, but did not have a formal role in reviewing determinations of the Board.

³ The PCA recommended that a junior Federal ‘Minister for Building be appointed, reporting to the Industry Minister, who would have direct responsibility for building regulation issues’ (sub. DR93, p. 3).

Whether the Board or a Ministerial Council is the final decision maker on Code reforms, it is essential that a community-wide perspective is adopted. Government officials represented on the Board or relevant Ministers must present a whole-of-government coordinated viewpoint. This is particularly important when agenda items cover broad issues such as access or the environment.

The Queensland Government considered that there are difficulties in this regard under the current arrangements:

... the current administrative arrangements between the ABCB and State building administrations do not provide sufficient scope for individual States and Territories to participate in the policy development process from a whole of government perspective. As a result, the national consultation process is duplicated, as further consultation is required at the State level before a proposal is considered. (sub. 41, part 1, p. 3)

This may, however, be primarily an issue for coordination processes within each jurisdiction, rather than a weakness with ABCB processes. As well as ensuring close cooperation between the primary bodies and organisations responsible for building regulation and planning controls, the early involvement of central agencies (in particular Premiers'/Chief Ministers' departments) is a key mechanism for coordinating a whole-of-government response within a jurisdiction, where significant cross-portfolio issues are likely to arise.

There may also be scope for introducing further mechanisms for coordinating cross-portfolio considerations, within the ABCB committee structure. In principle, additional issue-specific project committees or working groups could be established, with representation from all governments and all key portfolios with an interest in the issue. However, the number of participants in such forums could be a major obstacle to efficient decision making. Alternatively, senior officials from central agencies could meet under the ABCB umbrella, bringing to the table a coordinated whole-of-government view.

The Western Australian Department of Housing and Works considered that the process of setting up a formal Ministerial Council would encourage better coordination:

[It] would force jurisdictions to clarify roles of their various agencies, and possibly promote the concentration of building regulation matters into a single agency, such as the Victorian Building Commission. It would also promote the "whole-of-Government" buy-in to ongoing building regulation reform. (sub. DR90, p. 4)

Notwithstanding the possibility of such institutional reform occurring within administrations, a Ministerial Council model would still require cross-portfolio coordination on certain major reforms. The Commission notes that there have been some successful examples of cooperative efforts between Ministerial fora (for

example, in the areas of Health and Community Services/Disability and Agriculture/Food regulation). This has included:

- instances where more than one minister from a jurisdiction has attended a Ministerial Council meeting; or
- the establishment of separate joint forums (with cross-portfolio representation) at the ministerial or senior official level that then report to the regular Council(s).

The Department of the Prime Minister and Cabinet (DPMC 2002) provides the following advice on cross-portfolio coordination:

In cases where the field of policy covered by a Ministerial Council covers more than one portfolio in any particular jurisdiction, it is a matter for each jurisdiction to determine which Minister or Ministers are to attend and to arrange appropriate liaison.

...

When considering intergovernmental matters which have implications beyond the areas of responsibility of a Ministerial Council, other relevant Councils should be consulted through liaison between the Chairs in the first instance. Ministerial Councils should also refer such issues to Heads of Government where they have major cross-portfolio or whole-of-government implications.

Overall, while there may be some benefits from having a formal standing Ministerial Council, the costs, delays and disruption associated with putting in place a new decision-making framework may not be justified as long as the Board continues to be effective.

FINDING 10.3

An annual meeting of Ministers (with appropriate whole-of-government backing) may be a useful mechanism to demonstrate ongoing commitment to a nationally consistent approach to reform of building regulation. Ministers could also set broad strategic direction and priorities. Administrative arrangements, such as who would chair such a forum, would need to be determined.

10.7 Independence of the decision-making body and the secretariat

Some interested parties called for greater independence of the Board and also the ABCB Office (or secretariat). As noted above, BPIC, HIA and PCA suggested that the Board be replaced with an independent statutory commission, along the lines of the NTC and FSANZ models.

Decision-making body

In its *Submission to the 2nd Review of the National Road Transport Commission*, the NRTC (2002) made the following observations about the advantages of a legislative base and the importance of independence:

A legislative base provides a degree of certainty over resources and allows the body to act as an independent entity. This is seen as essential in an inter-governmental body charged with making recommendations to a council of ministers for their decision.

The NRTC notes that its accountability to all jurisdictions collectively but independence from each jurisdiction individually is an important factor in its successes.

... independence is an important factor in it being able to make recommendations that can be adopted by all governments and can be viewed without suspicion of delivering the objectives of a single government in the federation. It also allows the body to act as an independent entity, which aims to serve the Australian community as a whole, not merely government agencies, the transport industry or any other group ... (p. 19)

The instrument establishing the Board (or equivalent body) may be a less important determinant of independence than the composition of the decision-making body and the nature of the decision-making process. A revised IGA could, for example, (in the same manner as any legislative instrument), more clearly state the overriding objective of maximising the welfare of the community as a whole (see chapters 5 and 11). However, it is acknowledged that an IGA does not have the same legal force to bind governments.

As discussed above, State and Territory governments would not be willing to give up their constitutional power to determine building regulation. Thus, an independent Statutory Authority created by a Commonwealth Act of Parliament is only likely to be feasible if there are appropriate mechanisms for ensuring accountability to the States and Territories. Any model therefore that afforded such a Statutory Authority the *final* decision-making power in relation to the BCA is most unlikely to be supported by all States and Territories. The necessary accountability could be largely achieved, however, by ensuring that any statutory body was overseen by a higher intergovernmental decision-making body (as, for example, under the NTC model).

Interestingly, the New Zealand Government is moving away from an independent statutory Building Industry Authority (BIA). The New Zealand Ministry of Economic Development (sub. 5, p. 5) advised that building regulatory reform proposals in a Building Bill (under consideration at the time) inter alia ‘strengthens the role of the building regulator and transfers the functions of the BIA to a government department to increase accountabilities to Ministers’.

A strong advantage of the NTC model is that Commissioners are appointed on the basis of their skills and expertise, rather than as representatives of governments or other stakeholder interests. This ensures a high degree of independence, with the process for developing recommendations to the Ministerial Council clearly at arms length from governments and political influence. While governments, appropriately, are the final decision makers, through the ATC, all advice to the Council is public and based on rigorous and transparent processes — making it more difficult for political considerations to take precedence over the broader community interest.

In the discussion above of the composition of the ABCB and its committees, the Commission identified, as a good principle, that appointments should be based on skill and expertise. This is of more relevance to the non-government members, since as long as the Board is the final decision-making body (ie, there is no Ministerial Council), governments should appropriately be represented directly on the Board.⁴ Although this means that the Board does not have the same level of independence as the NTC, the transparent code-making processes are again an important mechanism for keeping governments accountable.

Nevertheless, independence and accountability can be enhanced by having a Chairman that, as far as possible, is independent of other interests represented on the Board. As noted in chapter 2, under current arrangements the Chairman is appointed from amongst the Board members. The present Chairman is nominally an industry representative and therefore may not be perceived as being entirely at arms length from those interests.

RECOMMENDATION 10.3

The ABCB Chairman should be an additional Board member, rather than being chosen from amongst the Government and industry members. The appointment should be independent from sectional interests and based on a demonstrated capacity to advance the work of the Board.

ABCB Office

A number of participants commented favourably on the performance of the ABCB Office:

The ABCB administration is customer focused, professional, project-driven, provocative and democratic. The central co-ordinating role has enabled some very significant regulatory reforms to be implemented, such as the introduction of energy

⁴ However, the competency and expertise of government representatives was an issue raised above in section 10.3.

efficiency measures for houses in 2003. (Western Australian Government Department of Housing and Works, sub. 14, p. 3)

The ACT has been particularly appreciative of the role of the office of the Australian Building Codes Board ... in providing a centre of excellence for the maintenance and development of the BCA. (ACT Government, sub. 48, pp. 1–2)

We have found them to be responsive to our concerns and skilled at communicating complex technical issues in clear language. (Blind Citizens Australia, sub. 20, p. 11)

However, several participants raised concerns about the independence of the Office. As noted in chapter 2, the Office is a unit within the Australian Government Department of Industry, Tourism and Resources (ITR). Some consider that under this arrangement the Office is too close to the Australian Government and lacks the necessary separation of identity and agenda. BPIC, for example, noted that:

The structure is not sufficiently independent from the commonwealth department. The ABCB directorate are answerable to the federal government department and this often conflicts with sound national regulation policy. ...

This relationship with the department complicates management of the ABCB process and directly conflicts with the underlying philosophy of the Inter Government Agreement where the ABCB is to be a cooperative body between States, Territories and the Federal Government. The arrangement must provide for independence. (sub. 23, p. 38)

MBA believe that there is a ‘strong case’ for the ABCB to be more administratively independent:

The current arrangement runs the risk of raising conflict in the areas of priorities and policy independence. (sub. 24, p. 7)

The Western Australian Government Department of Housing and Works, on the other hand, thought that making the ABCB part of an Australian Government department:

... has worked and delivered good results. There do not seem to be compelling practical needs to change this arrangement. (sub. 14, p. 4)

This issue was considered in some detail by the Laver Review, which identified as a particular concern:

... a requirement for the ABCB’s strategic objectives to be aligned with the Commonwealth Department’s goals rather than those defined by the ABCB. In addition, the ABCB staff are required to undertake certain training programs at the direction of the Department, rather than consider the particular needs of the ABCB. (Laver 2000, p. 39)

The Review recommended that a more independent structure be investigated, such as a statutory authority. The ABCB Chairman advised that this and other options

had been examined and ‘no case has been developed as a viable alternative’ (sub. 4, p. 25).

When considering alternatives, any disadvantages of the current arrangements must be balanced against the considerable benefits of co-location within the Department, in terms of in-kind corporate support services provided and staff recruitment and retention advantages. Three alternative models for achieving greater independence for the Office are assessed, with reference to a number of criteria, in table 10.2. The models are:

- a Memorandum of Understanding (MOU) with ITR
- an Executive Agency
- a Statutory Agency.

For comparison purposes, the key features of the current governance arrangements for the Office are also set out in the table.

The creation of a statutory agency would provide for the highest level of independence. However, this institutional model would impose some additional obligations and constraints, including:

- legislation would need to be drafted and passed through Parliament — this would likely involve substantial time and expense;
- some reduced flexibility to modify operating practices and procedures;
- full accountability obligations to the Parliament(s); and
- a requirement for the publication of an annual report.

The recent report of the *Review of the Corporate Governance of Statutory Authorities and Office Holders* (Uhrig 2003, p. 58) emphasised the importance of ensuring that ‘the benefits of establishing functions separate from government are significant enough to warrant the creation of statutory bodies’ and further stated:

The powers and functions ... are generally specified in significant detail in the enabling legislation. ... it ... has the effect of limiting the flexibility in responding to changing government and community priorities. Legislation may become dated and can be difficult to change.

Consideration should be given to whether functions can be accommodated successfully within a departmental structure or an executive agency, reducing the need for the creation of a separate authority and the associated costs and demands placed on the public sector. (Uhrig 2003, p. 58)

Table 10.2 **Alternative governance arrangements for ABCB Office**

<i>Status quo (ABCB Office)</i>	<i>MOU</i>	<i>Executive (and prescribed) agency^a</i>	<i>Statutory (and prescribed) agency^b</i>
Organisational Independence:			
Office is part of the Australian Government Department of Industry, Tourism and Resources (ITR).	Formalises revised administrative arrangements to increase separation (possibly including physical location) and autonomy from Department.	Provides for separation (and autonomy of operation) from ITR or other Department of State. Typical structure is of CEO with staffing and financial powers equivalent to a Departmental Secretary, reporting directly to a Minister.	Independence of the body is enshrined under the enabling legislation. Provides the highest degree of independence.
Financial management autonomy:			
Financial management of ABCB is currently undertaken by ITR utilising a Special Account under the <i>Financial Management and Accountability Act 1997</i> (FMA Act). This account quarantines the funds available to the ABCB from being used for other purposes.	Largely retains the status quo for financial management processes and procedures.	Full separation of accounting and financial reporting, with separate budget appropriations.	Full separation of accounting and financial reporting, with separate budget appropriations.
Involvement of all Australian governments:			
Funding from and accountability to all governments, but co-location of office in ITR may allow the Australian Government to exert influence over resourcing and policy.	No implications for funding from or accountability to governments, but reduces scope for ITR to influence strategic objectives.	Agency would be an Australian Government body accountable only to an Australian Government Minister and the Australian Parliament (and not to State and Territory governments).	Legislation establishing the agency would be an Act of the Commonwealth Parliament. The legislation could ensure continuing funding from, and accountability to, all governments through reporting arrangements to a higher intergovernmental decision-making body.

Accountability/reporting obligations:

No separate accountability and reporting obligations.

No separate accountability and reporting obligations.

Full accountability obligations to the Parliament. Annual report must be provided to the Minister, for presentation to the Parliament.

Full accountability obligations to the Parliament. Annual report must be provided to the Minister (who is assigned portfolio responsibility for the agency), for presentation to the Parliament.

Transition costs and ongoing cost-effectiveness:

Substantial cost savings from in-kind support from ITR (financial, human resources, IT, other corporate support).

No transition costs.

Retains most of the benefits of in-kind support.

Some increased costs, especially if office is to be in a separate location.

Minimal costs associated with preparation of MOU. Easy and simple mechanism to implement and maintain.

One-off agency establishment costs would include preparation of the establishing instrument for the Governor General's approval and transfer of staff from ITR. Other one-off and ongoing costs will depend on degree of financial management autonomy, but could include:

One-off:

- set up of human resource management, IT, communications and other administrative services; and
- establishment of accountability, reporting and other governance arrangements.

Ongoing:

- Additional costs associated with provision of services previously supplied by ITR and new accountability and reporting requirements.
-

Additional costs similar to prescribed executive agency (full financial management autonomy), plus significant extra costs associated with preparation of necessary legislation and passage through Parliament.

continued next page

Table 10.2 (continued)

<i>Status quo</i> (ABCB Office)	<i>MOU</i>	<i>Executive (and prescribed)</i> <i>Agency^a</i>	<i>Statutory (and prescribed)</i> <i>agency^b</i>
Flexibility:			
May be constrained by ITR decisions on resourcing priorities and by possible ITR strategic policy influence.	Could limit ITR's ability to influence resourcing priorities and strategic policy. MOU would be easy to update.	Some flexibility with respect to degree of operational and financial management autonomy. Direct access to an (Australian Government) Minister may enhance flexibility. Functions specified in establishing instrument may be amended by the Governor-General as circumstances require.	Amending the establishing legislation would involve a time consuming process, including approval, legislative drafting and passage through Parliament. Use of regulations to cover arrangements that may be likely to change would enhance flexibility, but would give the delegate (an Australian Government Minister) greater control.
Cross-portfolio links:			
Connection with one department (ITR) may not adequately recognise that, increasingly, functions and objectives of ABCB Office cross portfolio lines.	Connection with one department (ITR) may not adequately recognise that, increasingly, functions and objectives of ABCB Office cross portfolio lines.	Distinction from any single department may facilitate better management of cross-portfolio linkages.	Distinction from any single department may facilitate better management of cross-portfolio linkages.
Employee arrangements:			
ABCB Executive Director and staff of Office are Australian Public Service (APS) employees.	No change to staffing arrangements.	Appointment, tenure and remuneration arrangements for the head of agency would be determined by the Minister. Other staff would be APS employees.	Head of body would be a statutory appointment. Other staff would be APS employees.

^a Executive agency under the *Public Service Act 1999* and prescribed under the FMA Act. ^b Statutory agency under the *Public Service Act 1999* and prescribed under the FMA Act.

Sources: DoFA 2003 and advice from Australian Government Department of Finance and Administration.

The Commission understands that the option of establishing the ABCB as an Executive Agency (see box 10.2), under section 65 of the *Public Service Act 1999* was considered by the ABCB, following the Laver Review. However, the status of the ABCB Office as essentially a secretariat for an independent intergovernmental board of decision makers, may make the executive agency structure unsuitable. The Australian Government Department of the Prime Minister and Cabinet advises that executive agency status may not be appropriate where:

- the situation requires a board of directors to take direct control and accountability for the actions of the body
- final powers do not remain with the CEO and Minister.

Box 10.2 Executive Agencies

Executive agencies are non-statutory bodies established by the Governor-General, acting on the advice of the Prime Minister, under Part 9 of the *Public Service Act 1999*. The purpose of the executive agency structure is to provide a degree of separation from departmental management where that is appropriate to the functions of the Agency and something less than a statutory authority is warranted.

An executive agency's functions are specified in its establishing instrument, although they may be amended subsequently by the Governor-General as circumstances require.

The provisions of the Public Service Act do not go into detail about the structure of an executive agency, so there is considerable flexibility.

The head of an executive agency is appointed by, and is directly accountable to, the Minister responsible for the agency. He or she need not be a public servant prior to the appointment. Other staff of executive agencies are public servants.

The head of an executive agency will have the management and accountability responsibilities of an agency head under the Public Service Act. Full separation of accounting and financial reporting can be achieved where the body is made a prescribed agency under the *Financial Management and Accountability Act 1997* (the FMA Act).

Examples of Executive Agencies, include:

- the National Oceans Office
- the Bureau of Meteorology
- National Archives of Australia
- the Australian Greenhouse Office.

Source: DPMC, pers. comm., 6 July 2004.

Given the likely transition costs and higher ongoing operating costs, the Commission does not advocate the establishment of an independent statutory agency at this time, especially in light of the general success of the ABCB's current structure. A move to an executive agency model would also involve additional costs, but more importantly the Commission has reservations about the suitability of this approach, given that the Office must be accountable to all nine governments, not just the Australian Government.

Some of the immediate concerns about the independence of the ABCB Office might be addressed through administrative arrangements to increase separation. These arrangements could be formalised in a Memorandum of Understanding (MOU) between ITR and the Board. Such an MOU could clearly state:

- that the Office is to have a high degree of separation and autonomy from the Department, including with respect to its physical location;
- expectations and obligations with respect to service provision and accountability; and
- strict limitations on ITR's ability to influence the operations of the Office, including in such matters as ABCB strategic objectives, budgets and staffing decisions.

It may be appropriate, as a first step, to implement an MOU and then conduct a review of its effectiveness after a suitable period of operation, say two years. If such a review found that the MOU had not been successful in achieving the necessary degree of autonomy, other options could be examined in some detail. Any such review should provide an opportunity for all stakeholders to submit their views.

FINDING 10.4

Overall, current institutional arrangements for pursuing building regulation reform have been reasonably effective. The creation of an Australian Government statutory body is not supported at this stage. However, there is scope for some refinements to structures and processes to further improve effectiveness and efficiency.

RECOMMENDATION 10.4

A formal Memorandum of Understanding should be agreed between the ABCB and the Department of Industry, Tourism and Resources to provide for increased autonomy for the ABCB Office and clearer separation from the Australian Government. The effectiveness of the MOU in addressing concerns about the independence of the Office should be reviewed after two years of operation and other options considered as appropriate.

Refinements to the ABCB structure are considered further in chapter 11.

11 Assessment and new IGA

This chapter draws together the various conclusions of earlier chapters and puts forward a proposed new Intergovernmental Agreement (IGA) to empower the Australian Building Codes Board (ABCB) to implement many of this study's recommendations. This chapter draws extensively on the material and analysis in previous chapters.

Section 11.1 summarises the Commission's assessment of the ABCB's performance against its 10 objectives. Sections 11.2 and 11.3, respectively assess whether the mission statement and the objectives contained in the IGA should be amended. Recommendations concerning the future work agenda for and the support functions of the Board are in sections 11.4 and 11.5 respectively. Section 11.6 proposes a new IGA.

11.1 Past performance

Are objectives being achieved?

The ABCB has made considerable but varied progress in relation to the 10 objectives with which it was tasked by the IGA. While some objectives have not been fully met, resource constraints inevitably mean that the ABCB has had to prioritise across competing demands.

Objective 1

Establish codes, standards and regulatory systems that are, as far as practicable:

- consistent between States and Territories
- cost-effective
- performance-based
- based on modern and efficient building practices.

Codes and standards

The ABCB has successfully pursued greater **consistency** in building codes and standards across the States and Territories. However, some recent expansions to the Building Code of Australia (BCA), notably the development of energy-efficiency standards, have proven more challenging to the drive towards consistency because jurisdictions have elected to pursue separate and varied agendas. Further work is needed to reduce differences across jurisdictions.

The ABCB significantly advanced the development of the Code by creating the structure on which to introduce **‘performance-based’ standards**. As a short-term measure, the Board initially put in place what are, in fact, ‘principle-based’ standards, with the intention of converting these into measurable performance-based standards. Unfortunately, the Board has not progressed very far with the second-stage conversion of the Code. This has created uncertainty about requirements in some areas, particularly for certain elements in Class 1 buildings.

While the ‘performance-based’ methodology of the Code has brought a number of benefits, not all the deemed-to-satisfy solutions have been updated frequently enough and, thus, a number are unlikely to continue to embody up-to-date building practices. To this extent, the Board is failing to ensure the codes and standards are **based on modern building practices**.

The ABCB’s fulfilment of **cost effectiveness** and **efficient practices** is largely reliant on the performance of other Code-based objectives, such as objective 2, which seeks building requirements based on minimum least cost solutions. All efficient practices will also be cost-effective.

Regulatory systems

The area in which the least progress has been made by the Board is in establishing effective and nationally consistent regulatory systems (one exception being the development of a national accreditation framework for certifiers — see chapter 7). The ABCB Office suggested that this area of work was complex and required significant resources, and that the demand on State and Territory resources from other major reform work, such as work on access for people with disabilities, was slowing progress.

Interested parties indicated that they would like more national consistency in the administration of building regulation. However, State and Territory Governments appear to be more committed to achieving uniformity in the technical requirements

of the Code than uniformity in its administration of compliance and enforcement across the jurisdictions.

National product certification

Probably the most significant program aimed at increasing consistency and effectiveness of regulatory systems across jurisdictions, was the *Australian Building Products and Systems Certification Scheme*. This was developed by the ABCB as a mechanism for products and systems to be certified as compliant against specific provisions of the BCA. The Board aimed to replace the State and Territory product certification schemes, considering a national approach would achieve consistency, eliminate duplication and reduce enforcement costs. However, the Scheme was disbanded last year, because of the difficulties inherent in getting approval in all Australian jurisdictions. It appears that some State and Territory Governments want to retain the right of veto over the acceptance of new building products and systems, despite the potential cost savings and gains to industry from a national approach.

In response, the ABCB is currently in the process of developing a new third party building products and systems certification scheme, CodeMark, to assess and certify products and systems against provisions of the Code.

Objective 2

Base building requirements on minimum, least-cost solutions which address the regulatory objectives of safety, health and amenity.
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Appropriately, the Board has addressed the regulatory objectives of safety and health more fully than that of amenity. While the focus has been on minimum, least-cost solutions, this has not always been the outcome, such as when certain ‘best practice’ standards developed by Standards Australia International (SAI) have been adopted.

On the other hand, it appears that some standards have been set below what the community may expect or be prepared to pay for. For example, until amendments were made to the Code in 2003, complaints were common concerning the sound insulation of multi-dwelling buildings. Sound insulation standards referenced in the Code were below equivalent standards set by other developed countries. And even with SAI standards, such as the SAI waterproofing standard, poor outcomes were occurring.

It appears that there are differing views on the success of the Code in meeting community expectations. These differences may reflect confusion about the objective of the Code (to reflect minimum acceptable standards rather than best-practice standards) and about the appropriate coverage of the Code. This highlights the general confusion posed by seeking to satisfy the expectations of the ‘community’ without assessing it against the costs of achieving them. A requirement to demonstrate that benefits exceed costs and that the optimum instrument has been chosen provides much more rigor to any analysis used to identify the most appropriate way to pursue objectives.

Objective 3

Investigate and promote opportunities for deregulation.

There has been limited pursuit of opportunities for deregulation. Training of building practitioners and improvements to building insurance are two examples of non-regulatory and complementary pathways to achieve efficient outcomes in building. However, the Board may consider such endeavours beyond its remit. Indeed, the Board would need substantial additional expertise to lead work in these areas and it may be better placed instead to provide a forum for States and Territories to discuss such issues.

Objective 4

Undertake and promote research which offers innovative and cost efficient solutions.

The ABCB research program covers a broad agenda, including projects on: the efficacy of technical solutions; areas for further development of the BCA; and the development of national administrative processes.

Important areas of research covered to date include: fire codes, access to buildings by people with disabilities, weather tightness, energy efficiency, care facilities for people who are aged, timber-framed construction in low-rise apartment buildings, structural steelwork in car parks, a guideline for building professionals in the use of fire safety engineering solutions and the resolution of State and Territory variations from the Code. A large focus of the research is on finding cost-effective solutions.

Participants expressed qualified satisfaction with the quality and relevance of the research undertaken under the oversight of the Board. Reflecting the current work priorities of the Board, recently research has been diverted to focus on energy-

efficiency and access standards for people with disabilities at the cost of more traditional core areas of the Code.

Objective 5

Consult and liaise with industry to achieve transparency in the reform process.

The Board consults extensively with industry to achieve transparency in the reform process.

While it is not explicitly required in an objective of the IGA, the preparation of Regulatory Impact Statements (RISs) is also a prime vehicle by which the ABCB achieves transparency in the reform process. This is in compliance with the requirements stipulated in COAG's *Principles and Guidelines for National Standard Setting and Regulatory Action by Ministerial Councils and Standard-Setting Bodies*. The Australian Government Office of Regulation Review reports that the ABCB has a good record of compliance with the COAG Principles and Guidelines over many years. In general, the ABCB's consultative processes have been praised for being open and transparent. Within the RIS framework, the Board has not only consulted with industry (including building professionals and industry peak bodies) as required by Objective 5, but also with Australian, State, Territory and Local Governments, research communities, special interest groups, and the wider community.

However, the best practice model for impact analysis has not always been applied, in particular, where proposals for changes to the Code are based on new or amended Australian standards. Rather, the RIS is often prepared relatively late in the process. SAI typically does not formally apply a RIS framework during the early consideration of the standards. Yet, it is at this earlier stage where there is the greatest opportunity to identify feasible alternatives — including non-regulatory options, or different regulatory approaches. With current practice, by the time a RIS is prepared it effectively becomes an assessment of whether or not to adopt a specific well-developed proposal for which a substantial level of commitment already exists.

Objective 6

Simplify the wording of building requirements to achieve user friendliness and plain language style.

Objective 6 directly impacts on transparent communication, relating to the language of the Code. It appears that, while skilled building practitioners, such as engineers and architects, are generally happy with the clarity of the standards, many builders and tradespeople complain that the language is not user friendly for them.

Objective 7

Coordinate and integrate reform activities with those of other agencies to ensure consistency of approach and to encourage consolidation into the BCA of all mandatory requirements affecting buildings.

Significant work has been put into consolidating mandatory requirements relating to energy efficiency and access for people with disabilities into the Code, although a number of jurisdictions are implementing their own energy performance requirements for buildings, leading to substantial variations. The areas most needing to be addressed include:

- the mismatch between the requirements of the BCA and those applied by fire protection authorities for the protection of property for most types of buildings;
- the erosion of a national approach by actions of Local Governments that impact on building, especially where it is not clear that the gains to the local residents justify the increased construction and compliance costs; and
- determining the best way to handle proposals for incorporating sustainability and environmental objectives (including energy efficiency) in the BCA.

Further work is also required with respect to on-site services and occupational health and safety.

The delays created by following the due process required to bring about agreement across all jurisdictions, sometimes means that States, Territories and Local Governments, impatient to bring about change, will implement their own changes before national agreement has been reached. While there may have been scope to better expedite processes, delays are an almost inevitable aspect of ensuring rigorous and transparent consultation and impact analysis across the nine jurisdictions.

Objective 8

Create an efficient regulatory environment to encourage an internationally competitive building industry.

Progress has been made towards creating an efficient regulatory environment through the adoption of consistent performance standards. However, administrative differences and separate control of product certification by the States and Territories continue to inhibit the free movement of services and goods across jurisdictional borders. The limited adoption of international standards in the BCA could also be inhibiting international competition.

The Board is involved in various international liaison activities. While the Commission recognises that the ABCB's pursuit of overseas linkages has generated benefits, it is surprising that this has not resulted in wider inclusion of international standards in the Code. The priority assigned to these activities may need to be reviewed in light of more pressing demands for resources in other areas.

Objective 9

Matters ancillary to its objectives: consulting, training, Action Agenda, conferences and meetings.

and

Objective 10

Undertake education and marketing activities to promote the work of the Board, to increase awareness of building regulatory reform and to increase use of Board publications and products.

Objectives 9 and 10 are more appropriately assessed together as to some extent they overlap and both concern awareness and understanding of the Code. The Board has undertaken education and marketing activities to promote its work, including implementing changes to increase the accessibility of its publications and providing training to ensure large reforms, such as with energy efficiency, are understood. The Board has maintained a program of activities in support of its objectives, although the lack of knowledge and use of the Code amongst builders and tradespeople indicates that training about the Code could be improved.

The Laver Review made a number of recommendations directed toward improving take-up and awareness of the Code. Many of these (for example, a searchable web-based BCA and online answers to frequently asked questions) have now been implemented by the Board.

However, views presented to the Commission, suggest that some concerns remain about the adequacy of the Board's education and awareness activities. As well as a low level of awareness and take-up of the Code amongst small and regional builders and tradespeople, there is a general lack of awareness amongst consumers.

FINDING 11.1

The ABCB has made considerable but varied progress in relation to the 10 objectives with which it was tasked by the IGA. In general, the Board has prioritised well. However, there have been some shortfalls and performance can be improved.

11.2 Revised mission statement

Currently the Board's mission statement is:

To provide for efficiency and cost effectiveness in meeting community expectations for health, safety and amenity in the design, construction and use of buildings through the creation of nationally consistent building codes, standards, regulatory building requirements and regulatory systems.

This mission statement does not provide clear guidance on the overall goals of the Board and the priorities to be given to them. The Commission considers that the mission statement should be reworded as proposed in recommendation 11.1.

The prime focus should be on identifying regulatory interventions that address clear and significant market failure to improve the efficiency of the economy. Any proposed regulation should also take account of other existing mechanisms available to consumers to get the product/service they are willing to pay for and the potential for 'government failure'.

An issue is whether it is more helpful to nominate the particular areas of Code coverage (currently health, safety and amenity) or instead to directly focus on identifying market failures that require technical standards and regulatory intervention, whatever their category. For example, energy efficiency does not fit neatly into health, safety or amenity. If changes to the coverage of the Code are going to be increasingly driven by the pursuit of national consistency for all mandatory requirements for buildings, there is a case to be made for avoiding specifying the coverage of the Code in the mission statement. Instead, focus would be put on the criteria of market failure, rigorous analysis and dialogue with all interested parties and searching for an efficient level and type of intervention that is most likely to provide a credible basis on which to pursue national consistency.

For example, the Board has recently developed minimum energy-efficiency standards, to fulfil part of the Australian Government's greenhouse gas commitments. The Board uses the term 'sustainability' to refer to this and other related issues. This potentially introduces some uncertainty: sustainability is hard to define and difficult to relate to market failures. For example, it could be about reducing the consumption of exhaustible resources or about adverse impacts on the environment from pollutants. In addition, while some participants have argued that access and perhaps durability should be classified as sustainability issues, others say they have more to do with amenity and quality objectives. One advantage of using the market failure approach is that time does not need to be wasted on deciding which objective the problem relates to. Rather, the issue is to determine if a significant problem exists and whether, on a cost-benefit basis, it is appropriate to set a regulatory standard (mindful that many of the issues that would be pursued under the banner of 'sustainability' might be more efficiently addressed via market mechanisms, such as higher prices for exhaustible resources, rather than mandated technical standards) .

If the judgment is made that it would be helpful for the mission statement to continue to nominate the broad areas for the Code to set standards (which is the Commission's view), then **environment** should be added to the list of appropriate regulatory areas to reflect the reality that: (1) adverse environmental impacts can be an important source of market failure, especially when combined with information gaps; and (2) as long as taxation or tradeable emission permits are not being used to reduce greenhouse gas emissions (and other pollutants), then there may be an efficiency-enhancing role for standards set via the BCA. The Commission is not convinced, as argued by some participants, that environmental issues can be neatly separated out as impacts on others external to the building, and thus come more within the scope of planning rather than building regulation.

While **national consistency** is the most significant national reform objective, it is not universally appropriate: the Code enables variations by regions with different characteristics, such as cyclone risks. However, these variations are best addressed within a national framework in order to achieve consistency between like regions across the nation. In addition, the pursuit of a national compliance system and fully harmonised regulatory systems may not be warranted at this stage. Rather the focus should be on making enforcement effective, with harmonisation occurring progressively in areas where the costs are justified by the benefits.

As any regulation that is economically **efficient** is also **cost-effective**, there is no need to include the latter in the mission statement. The mandatory requirement will not necessarily be the lowest standard, but rather the minimum necessary to meet the efficiency-determined level.

RECOMMENDATION 11.1

The mission statement for the ABCB should be amended to:

In addressing issues relating to health, safety, amenity and the environment: to provide for efficiency in the design, construction and use of buildings through the creation of nationally consistent building codes and standards; and to contribute to effective regulatory systems.

This mission statement sets the overall guidance for the Board's pursuit of objectives.

11.3 Revised objectives

The reform agenda for building regulation for the period ahead is wider than that of the last 10 years. To reflect observations made throughout the report, the Commission proposes that the objectives be revised to remove any overlap or conflicts and to clarify means and ends. The objectives of the IGA should be reworded as outlined in recommendation 11.2.

RECOMMENDATION 11.2

The objectives of the ABCB should be amended to:

Proposed Objective 1

Establish building codes and standards that are the minimum necessary to achieve relevant health, safety, amenity and environmental objectives efficiently.

In determining the area of regulation and the level of the requirements, the Board should ensure that:

- *there is a rigorously tested rationale for the regulation*
- *the regulation would generate benefits to the community greater than the costs (that is, net benefits)*
- *there is no regulatory or non-regulatory alternative (whether under the responsibility of the Board or not) that would generate higher net benefits.*

Proposed Objective 2

Ensure that, to the extent practicable, mandatory requirements are:

- *consistent across the States and Territories*
- *performance-based*
- *verifiable*

-
- *based on international standards*
 - *expressed in plain language.*

Proposed Objective 3

Identify and encourage the implementation of improvements to compliance and enforcement systems for building regulation.

Proposed Objective 4

Encourage reduced reliance on regulation by providing the forum to explore alternative mechanisms for delivering outcomes, including:

- *non-mandatory guidelines*
- *training to increase skill levels of building practitioners and certifiers*
- *improvements to the licensing, accreditation and audit of building practitioners.*

11.4 Future work agenda

The core elements of the regulatory reform strategy to date have been:

- introducing performance-based standards;
- updating the BCA;
- pursuing consistent adoption of the BCA by all States and Territories;
- seeking consolidation of other mandatory requirements impacting on building into the Code;
- pursuing harmonisation of the administration of building; and
- undertaking and promoting research.

While the responsibilities of the ABCB should extend beyond that of ‘keeper of the Code’, this should still remain its prime role. The BCA is a ‘living document’. It needs regular updating to reflect ongoing innovation in building technologies and practices.

The Commission considers that the Board has given insufficient attention to maintenance and updating of the Code. For example, the Housing Provisions are not being developed to keep pace with evolving industry practices and innovative building materials coming on to the market. Also, the development of the next version of the BCA (BCA 21 project) should have provided the opportunity to review and update provisions in the BCA. However, work in this area has slipped, as higher priority was given, over recent years, to the development of provisions for access for people with disabilities, and energy efficiency.

Much greater focus must be given to making the requirements of the performance standards measurable and ensuring compatibility between the objectives of the deemed-to-satisfy solutions and performance requirements. More generally, the short-term solution of transferring the prescriptive building requirements of earlier codes into all new versions of the Code since BCA96 as deemed-to-satisfy solutions needs to be redressed. As intended, the BCA should be reassessed and where appropriate rewritten from the top down to ensure the performance requirements and then the deemed-to-satisfy requirements are consistent with the broad functional statements and objectives.

The Commission considers the future work program should have the following elements:

- maintaining and updating the BCA
 - revise deemed-to-satisfy solutions to ensure they embody up-to-date building techniques, including updating SAI standards, where appropriate
 - ensure deemed-to-satisfy solutions and performance requirements aim to achieve equivalent levels of performance;
- performance based requirements
 - improve the clarity of ‘performance’ standards, including adding measurable levels of performance for most
 - address issues about ‘performance’ standards allowing costs to be shifted from the construction of a building to the use phase
 - facilitate inter-jurisdictional discussions of ways to address concerns about the expertise of designers and certifiers to devise and assess alternative solutions
 - facilitate inter-jurisdictional discussions of ways to address problems with insurers being unable to accurately assess the risks associated with alternative designs and the resulting higher premiums for alternative solutions;
- reducing regulatory variations across jurisdictions
- consolidation
 - incorporate into the BCA mandatory requirements originating from other legislation that affects buildings or, where this is not feasible, work to remove conflicts in objectives and make them easily accessible and transparent to the industry;
- administration and compliance
 - facilitate inter-jurisdictional discussions of ways to address concerns about poor building outcomes due to non-compliance with the BCA and the operation

of different administrative systems across jurisdictions, such as those identified by the Campbell Report (2002)

- assess the possible underlying causes of these problems and facilitate inter-jurisdictional discussions of whether there is a role for cooperative action by all States and Territories in relation to any of them
- facilitate inter-jurisdictional discussions of ways to assess whether there is a case for the ABCB to take on the issue of greater consistency in the regulatory framework for building;
 - access, use and egress for people with disabilities
- continue work on incorporating into the BCA requirements that would ensure that compliance with the Building Code would also ensure compliance with regulations under the *Disability Discrimination Act 1992 (Cwlth)*;
 - plumbing and gas
- work with the National Plumbing Regulators Forum to identify and resolve differences between the BCA and the Plumbing Code of Australia and on-site gas requirements
- clarify respective roles of the Board and the Forum with respect to the development of water efficiency standards aimed at meeting environmental objectives;
 - property protection against fire
- address the disconnect between the objectives of the fire safety provisions of the BCA and those of State and Territory legislation on fire brigade services, regarding the fire protection of property
- consult with interested parties and conduct impact assessment to determine an appropriate level of property protection for buildings in the BCA;
 - Local Government requirements on building
- address the growing inconsistencies between building requirements across local council jurisdictions, by facilitating inter-jurisdictional discussions to progress the following options:
 - ... subjecting changes to a suitably rigorous justification process involving impact analysis, via the State or Territory from which it originates
 - ... maintaining a register of State RISs undertaken for Local Government building regulations, to help inform Board discussions
 - ... reaching national agreement over a possible clearer delineation between regulation-making powers relating to planning and building

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- ... assessing the feasibility of requiring any Local Government requirement that is inconsistent with the BCA to be approved by the responsible State Minister (similar to the Victorian approach, where local council changes to the planning scheme must be approved by the Minister for Planning under an overarching State policy framework and strategic plan);
- environment and sustainability
 - instead of further examining the definition of ‘sustainability’, or delineating what constitutes the environment and what sustainability, identify and analyse the nature of the associated market failures in each case, if any, and what form of government intervention is warranted
 - establish whether standards in the BCA are the appropriate form of government intervention, in the context of the currently limited use of market mechanisms, such as subsidies, taxes and permit trading to address environmental externalities and concerns about ‘over-use’ of exhaustible resources
 - facilitate inter-jurisdictional discussions to determine which elements of positive or adverse environmental impact should be addressed via the Code, if any, and determine what will constitute the minimum effective regulation;
 - electrical installation and telecommunications
 - continue to identify and resolve differences between the BCA and on-site electrical installation and telecommunications requirements;
 - occupational health and safety
 - address the overlap between the BCA and OH&S requirements
 - facilitate inter-jurisdictional discussions of ways to work towards removing inconsistencies between occupational health and safety legislation and the BCA and incorporating relevant OH&S requirements that impact on building into the Code
 - in particular, identify conflicts between prescriptive OH&S-based legislation for lifts (as reflected in the Australian elevator standard) and other state-based regulations and the provision for performance-based standards in the Code, in order to remove the resultant difficulties and inefficiencies caused by the multitude of regulations;
 - plain language
 - continue to improve the clarity of the Code, particularly for builders and tradespeople.

Where the ABCB receives extra funding to pursue an additional reform program, such as occurred with the development of energy-efficiency standards, this should not jeopardise other work programs, such as converting what are effectively principle-based standards into performance-based standards.

RECOMMENDATION 11.3

The future work agenda of the Board should give priority to the following issues:

- *maintain and update the BCA*
- *clarify performance-based standards*
- *national consistency*
- *consolidation*
- *compliance and enforcement*
- *access, use and egress for people with disabilities*
- *plumbing and gas*
- *property protection against fire*
- *Local Government requirements for building*
- *environment*
- *electrical installation and telecommunications*
- *occupational health and safety*
- *plain language.*

11.5 Support functions

As currently specified in the objectives, the ABCB carries out a number of functions that support its core work. These should continue to be carried out by the Board and be identified in a new intergovernmental agreement. However, they should not be contained in the objectives, as they are means rather than ends.

Transparency in the reform process

Especially with industry representation on the Board, it is important that all interested parties, not just industry, are given the opportunity to comment on proposals. There are a number of changes that could be made to improve participation by all interested parties, including: better use of the internet for electronic dissemination of material for comment and for transmitting feedback; access to submissions on the Board's website; longer consultation periods for major reforms; and earlier consultation.

Economic evaluation and impact analysis

The Board's existing regulatory impact analysis is relatively robust and provides a strong framework. Some adjustments (chapter 8) would further increase the likelihood of finding solutions which address the public interest. In particular, while regulation impact analysis already requires assessment of all relevant impacts, some that are particularly relevant to building are not always given sufficient coverage in RISs. The ABCB should ensure that all RISs address impacts that are particularly relevant to building reform, including:

- impacts on consistency;
- assessment of available international standards, including a comparison of the impacts between a proposed local standard and that of the closest international standard, to demonstrate which one provides the higher net benefit and whether it is appropriate to include more than one recognised standard;
- compliance costs;
- life-cycle costs and benefits, including impact on maintenance; and
- impacts on users and buyers.

Provide useful technical information to building practitioners

In addition to the information provided in the BCA and in technical non-mandatory guidelines, as noted in proposed objective 4, the Board should generally provide useful information for builders. Given the highly disaggregated nature of the building industry, many practitioners cannot conduct their own research or spend time updating their knowledge of recent research. The Board can help to fill in these gaps and provide information that is accessible and useful to building practitioners.

Conduct and coordinate research

The ABCB should continue to coordinate and promote research that offers efficient solutions to address significant market failures. The ABCB's research program is generally regarded as being successful. Research efforts should be prioritised in line with the Board's work program.

Given its national configuration, the Board could also collect data for the entire nation to better inform regulatory reform efforts. For example, the Australasian Fire Authorities Council commented that there is a critical need for a national repository

of fire-related data in order to support the development of evidence-based building regulatory reform.

Knowledge of the Code

The ABCB should address the training requirements of the industry and administrators of building regulation, to ensure building practitioners and certifiers have adequate knowledge of the BCA. This issue is distinct from the broader question of the skill levels of building practitioners, as addressed through proposed objective 4.

Promote awareness and increased use of the Code

In addition to providing training on the BCA, it is important that the building industry is aware of recent developments with the Code, and is able to respond to them. Also, consumers and the general public should know about the existence of the BCA. The Board should promote awareness and increased use of the Code and related materials and services. Reducing the outlays involved in getting a copy of the Code will also improve awareness of its purpose and content.

11.6 New IGA

Implementing the recommendations of this study would re-invigorate the mandate given to the Board in 1994, but not entirely activated since then, to address reform in regulatory systems as well as in the Code itself. Rather than solely being the ‘keeper of the Code’, the ABCB would undertake wider involvement in improving regulatory systems. It would provide the forum in which the jurisdictions could explore ways to improve all aspects of the regulatory environment. The overall aim would be to establish efficient and effective regulations and efficient and effective compliance and enforcement arrangements to allow the building market to work better. The success of building regulation reform, with a national focus, is crucially dependent on the involvement of the Australian, State and Territory Governments.

The Board should remain an intergovernmental body seeking national solutions. The Draft Report contained a draft recommendation (11.3) to change the name of the Board to reflect the recommitment to looking at regulatory systems. Following the reactions from a number of interested parties, the Commission decided not to proceed with this idea. The current name is well known and respected.

A new IGA by the Australian, State and Territory Governments would be the mechanism for implementing the proposals in this study and for taking forward the continuing process of building regulation reform.

Increasingly, the work of the Board has involved setting requirements with implications for several portfolios (for example, the environment). This points to the need for a whole-of-government approach to be taken by the Board. The new IGA should ensure this by specifying that government representatives should take a whole-of-government perspective.

In addition, the new IGA should further re-confirm the commitment to implementing national consistency and other reforms. The IGA should clearly state the presumption of automatic adoption of the Code, along with a requirement to give reasons if a jurisdiction diverges from an agreed regulation or other reform. As well, the Board should establish a process for regular monitoring and reporting on the progress with implementation of the Code and other agreed reforms, including reporting on any divergence from such reforms.

Funding

The Australian Government has approved funding for the ABCB to the end of 2004-05. If the Australian Government accepts the Commission's recommendation that the ABCB should continue to operate, then the question remains what should be the source and level of funding (see chapter 10).

The level of funding and resources available to the ABCB clearly impacts on its ability to function effectively and achieve its objectives. While funding comparisons for different bodies have inherent difficulties, some interested parties have noted that, compared with Food Standards Australia and New Zealand (FSANZ) and the National Transport Commission (NTC), the ABCB receives significantly lower funding from governments (\$15 million, \$7 million and \$2 million respectively for 2003-4). Given dissatisfaction with the rate and scope of reforms being effected via the ABCB, there may be a case for increased funding. However, it is not clear that funding is the real constraint (as the Board has been able to build up its reserves). The complexity of issues is also part of the explanation.

RECOMMENDATION 11.4

A new Intergovernmental Agreement (IGA) should be negotiated by all nine governments, so as to implement many of this study's recommendations. The IGA should:

- ***state the ABCB's revised mission statement and objectives***

-
- *reconfirm the commitment to national consistency of regulatory requirements and systems*
 - *outline the future work program*
 - *agree to strengthen the use of regulatory impact statements to enhance rigour for mandatory regulations*
 - *agree to shared funding and removal of some charges for the BCA*
 - *affirm the independence of the Chairman of the ABCB*
 - *confirm ABCB membership and emphasise the need for government members to represent whole-of-government positions.*

Interim funding

The ABCB has funding from the Australian Government up until end June 2005 and hence, an interim arrangement for funding would need to be put in place to cover the intervening period until the proposed new IGA (with funding) comes into effect.¹

¹ The Coalition's industry policy statement, 8 October 2004, stated that: 'The Coalition Government will continue to provide annual funding of \$1 million to support the work of the Australian Building Codes Board. Funding will be subject to regular review and contingent on progress against agreed priorities.'

A Submissions and meetings

Submissions

<i>Participant</i>	<i>Submission Number</i>	<i>Date received 2004</i>
ABCB Chairman	4	30 April
	42	24 June
	DR75	8 October
ABCB Office	50	23 June
	DR99	11 November
ACT Government	48	27 July
Airconditioning & Mechanical Contractors' Association of Victoria Ltd	16	5 May
	DR80	7 October
Alliance for Fire & Smoke Containment	31	7 June
Arup Fire	15	5 May
	DR88	15 October
Association of Consulting Architects Victoria	DR100	16 November
Association of Consulting Engineers Australia, The	46	8 July
Attorney-General's Department — Civil Justice Division	10	30 April
Attorney-General's Department — Emergency Management Australia	43	24 June
Australasian Fire Authorities Council	28	28 May
	DR79	10 October
Australian and New Zealand Solar Energy Society Ltd, The	1	28 April
Australian Asset Management Pty Ltd	DR98	4 November
Australian Business Council for Sustainable Energy	DR78	9 October
Australian Conservation Foundation	DR77	8 October
	DR94	22 October
Australian Elevator Association Ltd	44	29 June
Australian Greenhouse Office	54	19 August
Australian Institute of Building	DR67	8 October
Australian Local Government Association	45	30 June
	DR86	14 October
Australian Network for Universal Housing Design	2	29 April
Australian Sustainable Built Environment Council	22	17 May
BCA Logic Pty Ltd	55	24 August

(continued on next page)

Submissions (continued)

<i>Participant</i>	<i>Submission number</i>	<i>Date received 2004</i>
Blind Citizens Australia	20	14 May
Brisbane City Council	DR72	8 October
Builders' Collective of Australia Inc, The	39 DR64	16 June 7 October
Building Products Innovation Council Ltd	23 DR84	17 May 12 October
Burdekin Shire Council	DR95	15 October
Department of Defence — Environment, Heritage & Risk	DR59	24 September
Disability Council of NSW	26 DR68	21 May 8 October
Engineers Australia	DR61	30 September
Fire Protection Association Australia	19 47 DR70	13 May 12 July 8 October
Fire Protection Association Australia — Tasmanian Branch	35	9 June
Green Building Council of Australia Ltd	11 DR89	30 April 15 October
Hilti (Aust.) Pty Ltd	7	30 April
Housing Industry Association Ltd	6 DR85	30 April 12 October
Human Rights and Equal Opportunity Commission	13 DR60	3 May 27 September
Hunt, Mr Graeme — ABCB Board Member, Tasmania	DR83	12 October
Insurance Council of Australia Ltd	38 DR65	16 June 8 October
Leifer, Dr David	34 DR57	8 June 16 September
Lewis, Mr Adrian	DR97	2 November
Lilley, Mr Nigel — Builders Registration Board of WA	40	11 June
Local Government Association of Queensland Inc	DR92	21 October
Local Government Association of Tasmania	32	7 June
Lyons, K., Cottrell, E., Davies, K.	21	15 May
Master Builders Association of Western Australia	8	30 April
Master Builders Australia Inc	24 DR82	18 May 8 October

(Continued on next page)

Submissions (continued)

<i>Participant</i>	<i>Submission number</i>	<i>Date received 2004</i>
Master Plumbers' and Mechanical Services Association of Australia	DR76	8 October
Milliner, The Hon Glen	DR58	21 September
Municipal Association of Victoria	DR71	8 October
National Electrical and Communications Association	9	30 April
National Fire Industry Association	3	30 April
NATSPEC//Construction Information (Construction Information Systems Australia Pty Ltd)	DR69	8 October
New Zealand Ministry of Economic Development	5	30 April
Northern Territory, Minister for Lands and Planning	30	4 June
NSW Building Regulations Advisory Council — Industry Members	25	19 May
NSW Department of Housing	33	7 June
NSW Government	53 DR87	12 August 18 October
Pitt & Sherry	37 DR66	11 June 8 October
Property Council of Australia	52 DR93	10 August 25 October
Queensland Department of Local Government, Planning, Sport and Recreation	DR96	28 October
Queensland Government	41	22 June
Reddaway, Mr Lawrence	17 DR73	10 May 8 October
Riches, Mr Grant	DR56	14 September
Society of Fire Safety	49	27 July
Society of Fire Safety — Queensland Chapter	DR74	8 October
South Australian Government	36	11 June
Standards Australia International Ltd	27 DR81	24 May 11 October
Swane, Mr Ronald A, AM	12	3 May
Tasmanian Building Regulation Advisory Committee	29	31 May
Victorian Government	51 DR91	9 August 19 October
Water Services Association of Australia	DR63	30 September
Wentworth-Walsh, Ms Dorothy	18	12 May
Western Australian Department of Housing and Works	14 DR90	4 May 15 October

Consultations with organisations and individuals

Australian Capital Territory

ACT Planning and Land Authority

Attorney-General's Department — Emergency Management Australia

Australian Building Codes Board

Australian Construction Industry Forum

Australian Greenhouse Office

Australian Local Government Association

Australian Procurement & Construction Council

Building Products Innovation Council

Department of Environment and Heritage (Australian)

Department of Finance and Administration (Australian)

Department of Industry, Tourism and Resources (Australian)

Development Assessment Forum

Engineers Australia

Hood, Mr David A

Housing Industry Association Ltd

Master Builders Australia Inc

National Occupational Health and Safety Commission (Australian)

Royal Australian Institute of Architects

Service, Mr J.G.

New South Wales

Advanced Consulting Services Pty Ltd

Alliance for Fire & Smoke Containment

Australian & New Zealand Solar Energy Society Ltd

Australian Elevator Association Ltd

Australian Institute of Building

Australian Institute of Building Surveyors

Boral Ltd

Building and Construction Council

Building Designers Association of Australia

Cabinet Office

Department of Commerce — Office of Fair Trading

Department of Energy, Utilities and Sustainability — Sustainable Energy
Development Authority

Department of Infrastructure, Planning and Natural Resources

Disability Council of NSW

Green Building Council of Australia Ltd

Human Rights and Equal Opportunity Commission (Australian)

Insurance Council of Australia Ltd

James, Ms Carolynne

John Holland Pty Ltd

Marrickville Council

Munich Reinsurance Group

People with Disability Australia

Phillips Building Consultants and Inspectors Pty Ltd

Property Council of Australia

Standards Australia International Ltd

Sydney City Council

Walter Homes Pty Ltd

Northern Territory

Barclay Mowlem

Building Appeals Board

Building Practitioners Board

Department of Business, Industry and Resource Development

Department of Infrastructure, Planning and Environment

Engineers Australia, Northern Division

Northern Territory Fire and Rescue Service

Property Council

Territory Construction Association

Queensland

Arup Fire
Brisbane City Council
Building Services Authority
Consolidated Properties
Devine Homes
Herron Todd White
Local Government Association of Queensland Inc
Master Plumbers Association of Queensland
Queensland Fire Rescue
Society of Fire Safety, Queensland

South Australia

Adelaide City Council
Association of Wall & Ceiling Industries of SA Inc
Building Industry Specialist Contractors Association of SA, Inc
Department for Administrative and Information Services — Building Management,
Workplace Services
Department for Environment and Heritage — Office of Sustainability
Department for Transport and Urban Planning — Planning SA
Federation of Wall and Ceiling Industries of Australia and New Zealand
Royal Australian Institute of Architects
Sheppard, Assoc Prof Lorraine
Urban Ecology Australia

Tasmania

Building Regulation Advisory Committee
Department of Infrastructure, Energy and Resources
Local Government Association of Tasmania
Tasmania Fire Service

Victoria

ABCB Chairman

Alternative Technology Association

Architects Registration Board

Arup Fire, Risk and Security

Australasian Fire Authorities Council

Australian Business Council for Sustainable Energy

Australian Conservation Foundation

Australian Council of Building Design Professionals

Builders' Collective of Australia Inc, The

Building Commission

Department for Victorian Communities — Local Government Victoria

Department of Human Services — Office of Housing

Department of Premier and Cabinet

Department of Sustainability and Environment

Department of Treasury and Finance

Fire Protection Association Australia

FM Insurance Co Ltd

Heritage Victoria

Master Plumbers and Mechanical Services Association of Australia

Metropolitan Fire and Emergency Services Board

Municipal Association of Victoria

National Electrical and Communications Association

National Fire Industry Association

National Transport Commission

Plumbing Industry Commission

Society of Fire Safety

Victorian Competition and Efficiency Commission — Office of Regulation Reform

Western Australia

Australian Institute of Building Surveyors, WA Chapter

Builders Registration Board of Western Australia

Department for Planning and Infrastructure

Department of Consumer and Employment Protection

Department of Health

Department of Housing and Works

Housing Industry Association, Western Australia/Asia Region

Office of Energy — Sustainable Energy Development Office

Rawlinsons (WA)

Royal Australian Institute of Architects Western Australia Chapter

Western Australian Local Government Association

Western Australian Planning Commission

B Inter Government Agreement

This appendix contains:

- the Agreement between the Commonwealth of Australia, the States and the Territories to establish the Australian Building Codes Board (March 1994);
- the Variation of Agreement between the Commonwealth of Australia, the States and the Territories in relation to the Inter Government Agreement to establish the Australian Building Codes Board (July 2001); and
- Australian Building Codes Board Standing Orders.

An agreement

between

The Commonwealth of Australia

The States

and

The Territories

to establish

THE AUSTRALIAN BUILDING CODES BOARD

March 1994

An AGREEMENT made this first day of March, one thousand, nine hundred and ninety-four to establish the AUSTRALIAN BUILDING CODES BOARD.

SIGNATORIES

Senator the Hon Peter Cook
Minister for Industry, Technology & Regional Development

The Hon Garry West, MP
Minister for Local Government & Co-operatives
New South Wales

The Hon Rob Maclellan, MLA
Minister for Planning
Victoria

The Hon Terence Mackenroth, MLA
Minister for Housing, Local Government & Planning
Queensland

The Hon John Oswald, MP
Minister for Housing, Urban Development and Local Government Relations
South Australia

The Hon Paul Omodei, MLA
Minister for Local Government
Western Australia

The Hon Thomas John Cleary, MLA
Minister for Local Government
Tasmania

The Hon Steve Hatton, MLA
Minister for Lands, Housing & Local Government
Northern Territory

The Hon Bill Wood, MLA
Minister for the Environment, Land & Planning
Australian Capital Territory

AN AGREEMENT made this first day of March, one thousand nine hundred and ninety-four between – THE COMMONWEALTH OF AUSTRALIA (in this Agreement called “the Commonwealth”),

THE STATES OF NEW SOUTH WALES, VICTORIA, QUEENSLAND, SOUTH AUSTRALIA, WESTERN AUSTRALIA and TASMANIA (in this agreement called individually a “State” and collectively “the States”) and

THE NORTHERN TERRITORY AND THE AUSTRALIAN CAPITAL TERRITORY (in this agreement called individually a “Territory” and collectively “the Territories”).

(A) The respective Ministers of the Commonwealth, the States and the Territories, meeting in a national council known as the Planning, Housing and Local Government Ministerial Council (“the Council”), have determined that a nationally consistent regulatory framework should be developed, and in particular that:-

- (i) building regulation be as uniform as possible between the States and Territories and that the technical source of such regulation be the Building Code of Australia (“BCA”) as varied from time to time, or its replacement;
- (ii) additions or variations of technical provisions of the BCA by the States and Territories be limited, so far as is possible;
- (iii) more efficient and simplified building regulatory systems be developed; and
- (iv) national acceptance and adoption of technology be encouraged and supported;

and have further agreed to establish a representative Board to be known as the Australian Building Codes Board (“the Board”), or such other name as determined by the Council, with a mission to provide for efficiency and cost effectiveness in meeting community expectations for health, safety and amenity in the design, construction and use of buildings through the creation of nationally consistent building codes, standards, regulatory requirements and regulatory systems;

(B) The objectives to which the proceedings and operations of the Board are to be directed (“the Objectives”) are:-

-
- (i) to establish codes, standards and regulatory systems that are, as far as practicable:-
- consistent between States and Territories;
 - cost-effective;
 - performance-based; and
 - incorporate modern and efficient building practices;
- (ii) to ensure that building requirements are based on minimum, least-cost solutions commensurate with regulatory objectives of health, safety and amenity;
- (iii) to examine and promote opportunities for deregulation wherever possible;
- (iv) to undertake research to ensure that solutions are soundly based with particular emphasis on innovations and lowering costs;
- (v) to undertake effective consultation and liaison with industry to achieve transparency in the reform process;
- (vi) to simplify the wording of building requirements to achieve user friendliness and plain language style;
- (vii) to co-ordinate and integrate reform activities with those of other agencies to ensure consistency of approach and to encourage consolidation into the BCA of all mandatory requirements affecting buildings;
- (viii) to create an efficient regulatory environment to encourage an internationally competitive building and construction industry; and
- (ix) to perform such other matters ancillary or incidental to such objects as the Board shall from time to time deem fit.
- (C) The provisions of this Agreement are not intended to create legally binding or enforceable arrangements between the parties or to derogate from the rights and powers of the Commonwealth, States or Territories or any of their respective agencies or authorities.
- (D) The Council has established Standing Orders providing for the administration of the Board and implementation of the Objectives;
- (E) The Commonwealth, the States and the Territories are prepared to contribute towards the cost of maintaining and operating the Board in accordance with the

provisions of this Agreement and of the Standing Orders from time to time so established.

- (F) Subject to Recital (C) the Commonwealth, the States and the Territories wish to make a formal agreement in order to give effect to agreements and arrangements relating to the formation of the Board and its operations.

NOW IT IS HEREBY AGREED as follows -

PART 1 — Preliminary

- 1.1 This Agreement shall come into force when it has been executed by all of the parties (“the commencement date”).
- 1.2 The proceedings, decisions or actions taken by any interim Board established by all the parties in advance of this Agreement are adopted and confirmed as proceedings, decisions or actions taken by the Board established by this Agreement.

PART II — Interpretation

- 2.1 A reference in this Agreement to a Minister includes:-
- (a) a Minister or other member of the Federal Executive Council;
 - (b) a Minister of the relevant State or Territory; or
 - (c) a person nominated by a Minister as his or her representative from time to time.
- 2.2 A reference in this Agreement to “Administration” shall mean the Department of State or other Statutory Body responsible for building regulatory matters for the Commonwealth and each of the States and Territories.

PART III — Establishment of Board

- 3.1 The proceedings and operations of the Board established by this Agreement shall be directed to the achievement of the Objectives set out in Recital (B) of this Agreement.
- 3.2 Subject to the availability of funds, the Board may deal with such matters or arrange for the performance of such tasks related to the Objectives as the Board may, from time to time, deem necessary.

3.3 The Board shall consist of the following members:-

- (a) the principal officer of each Administration;
- (b) a representative of the Australian Local Government Association; and
- (c) three representatives of the building and construction industry as appointed by the Council.

3.4 A member of the Board may appoint a deputy.

3.5 The responsibilities, proceedings and conduct of the Board shall be as laid down by Standing Orders.

PART IV — Financial Arrangements

4.1 The financial arrangements set out in this Part shall be based upon annual budgets approved by the Council.

4.2 The monies of the Board (“funds”) shall consist of contributions by all of the parties in accordance with this Part and other monies arising from the operations of the Board.

4.3 Available funds may be applied only under the authority of the Board and for the purposes of the achievement of the Objectives of the Board as set out in this Agreement.

4.4 The amount of funds agreed in this Part to be contributed shall be allocated among the parties as follows:-

- (a) the Commonwealth contribution shall be one half of the amount; and
- (b) the States and the Territories shall contribute one half of the amount in proportions according to the values of their respective total building approvals for the financial year two years preceding the determination. The values of building approvals shall be as determined by the Australian Bureau of Statistics.

4.5 Contributions of funds by members shall be payable as soon as practicable after the commencement of the relevant financial year.

4.6 The financial arrangements set out in this Part shall not prevent the Board developing forward programs for regulatory reform.

PART V — Administrative Arrangements

- 5.1 An Executive Director (“the ED”) shall be appointed by the Board to co-ordinate the activities of the Board, carry out and manage the implementation of Board directives and decisions, and to manage and implement the reform program in accordance with the functions in Standing Orders.
- 5.2 The parties shall, through their respective administrations, facilitate the work of the Board as set out in Standing Orders.
- 5.3 There shall be a Building Codes Committee (“the Committee”) the composition of which shall be as determined by Standing Orders.
- 5.4 The Board may delegate such of its functions and authorities in such a manner as it considers appropriate. The provisions of this Clause shall not extend to its power of delegation.
- 5.5 Administrations on behalf of and in accordance with the determinations of the Board, may engage consultants or staff, or second staff, to carry out tasks associated with the functions of the Board.

PART VI — General

- 6.1 The operations of the Board and the administration of this Agreement shall be reviewed within five years from the commencement date of this Agreement.

PART VII — Standing Orders

- 7.1 The Standing Orders provided in this Agreement shall be determined by the Council and shall be applicable, as at the commencement date, for the purposes of the operation and implementation of the provisions of this Agreement.
- 7.2 The Standing Orders may be varied from time to time by the Council and references in this Agreement to Standing Orders are to be read as references to those Standing Orders as for the time being so varied.



VARIATION OF AGREEMENT

between

THE COMMONWEALTH OF AUSTRALIA

and

THE STATES

and

THE TERRITORIES

In relation to the Inter Government Agreement to
Establish the Australian Building Codes Board

Australian Government Solicitor
200 Queen Street
Melbourne Vic 3000
Our Ref: 1300022183

Telephone: (03) 9242 1339
Facsimile: (03) 9242 1149

VARIATION OF AGREEMENT is made on the 27 day of July 2001

SIGNATORIES

Senator the Hon Nick Minchin
Minister for Industry, Science & Resources

The Hon Dr Andrew Refshauge MP
Minister for Urban Affairs & Planning
New South Wales

The Hon John Thwaites MLA
Minister for Planning
Victoria

The Hon Nita Cunningham MP
Minister for Local Government & Planning
Queensland

The Hon Diana Laidlaw MLC
Minister for Transport & Urban Planning
South Australia

The Hon Michelle Roberts MLA
Minister for Local Government
Western Australia

The Hon Paul Lennon MHA
Minister for Infrastructure, Energy & Resources
Tasmania

The Hon Tim Baldwin MLA
Minister for Lands, Planning & Environment
Northern Territory

Mr Brendan Smyth MLA
Minister for Urban Services
Australian Capital Territory

PARTIES

The Commonwealth of Australia ('the Commonwealth')

AND

The States of New South Wales, Victoria, Queensland, South Australia, Western Australia and Tasmania ('the States')

AND

The Northern Territory and the Australian Capital Territory ('the Territories')

INTRODUCTION:

- A. This Variation of Agreement is supplemental to an agreement entered into in March 1994 by the Commonwealth, the States and Territories to establish the Australian Building Codes Board ('the Agreement') a copy of which is annexed to this Variation of Agreement. The Agreement also annexed the Australian Building Codes Board Standing Orders ('the Standing Orders')
- B. Under paragraph 6.1 of the Agreement the operations of the Board and the administration of the Agreement are to be reviewed within five years from the commencement date of the Agreement
- C. The parties have agreed to amend the Agreement (including the Standing Orders) on the terms and conditions contained in this Variation of Agreement.

OPERATIVE PART:

The parties agree to amend the agreement as follows:

Substitution of the word 'Council' with 'Minister(s)'

1. Recital A (at page 3) be amended as follows:
 - (a) the phrase 'meeting in a national council known as the Planning, Housing and Local Government Ministerial Council ("the Council"),' be deleted so that Recital A now reads:

'The respective Ministers of the Commonwealth, the States and the Territories responsible for building regulations, have determined that a nationally consistent regulatory framework should be developed, and in particular that...'
 - (b) the word 'Council' at the third line of the second paragraph of Recital A be deleted and the word 'Ministers' inserted.

-
2. Recital D (at page 5) be amended by deleting the words ‘Council has’ and inserting the words ‘Ministers have’ so that Recital D now reads:

‘The Ministers have established Standing Orders providing for the administration of the Board and implementation of the Objectives’

3. Paragraph 7.1 (at page 8) be amended by deleting the word ‘Council’ and inserting the word ‘Ministers’.
4. Paragraph 7.2 (at page 8) be amended by deleting the word ‘Council’ and inserting the word ‘Ministers’.

Objectives

5. A new subparagraph (x) be inserted at Recital B (at page 5) which shall read as follows:

‘(x) to undertake education and marketing activities to promote the work of the Board, to increase awareness of building regulatory reform and to increase use of Board publications and products.’

Part III — Establishment of Board

6. Subparagraph 3.3(c) (at page 6) be deleted and the following inserted:
‘(c) four representatives of the building and construction industry.’

Part IV — Financial Arrangements

7. Paragraph 4.1 (at page 6) be amended by deleting the word ‘Council’ and inserting the word ‘Board’.

Part VI — General

8. Paragraph 6.1 (at page 8) be deleted and the following paragraph inserted:
‘The operations of the Board and the administration of this Agreement shall be reviewed within 5 years of the date of execution of the Variation of Agreement in accordance with both the objectives of the Agreement and performance indicators developed as part of the Board's annual business plans.’

The Standing Orders

Substitution of the word ‘Council’ with ‘Minister(s)’

9. Subparagraph (A)(b)(i) (at page 1) be amended by deleting the word ‘Council’ and inserting the word ‘Ministers’.
10. Subparagraph (A)(d)(ii) (at page 2) be amended by deleting the word ‘Council’ and inserting the word ‘Ministers’.
11. Subparagraph (B)(c)(ii) (at page 4) be amended by deleting the word ‘Council’ and inserting the word ‘Ministers’.
12. Subparagraph (C)(a)(iii) (at page 5) be amended by deleting the word ‘Council’ and inserting the word ‘Ministers’.

Chair

13. Paragraph (A)(c) (at page 2) be amended as follows:
 - a) subparagraphs (c)(i)-(iv) be deleted and the following subparagraphs be inserted:
 - ‘(i) The Commonwealth Minister shall provide the State and Territory Ministers a list of persons recommended by the Australian Construction Industry Forum (ACIF) (‘the recommended persons’) for selection as Chair of the Board.
 - (ii) The Commonwealth Minister shall nominate a person either from the list of recommended persons provided by ACIF or any other person as his or her preferred candidate for the position of Chair of the Board and shall advise the State and Territory Ministers of the nomination.
 - (iii) In the event a State or Territory Minister disagrees with the Commonwealth Minister's preferred candidate, the State or Territory Minister may nominate another person (including a person from the list of recommended persons) and shall advise the Commonwealth Minister of the nomination.
 - (iv) Where a majority of Ministers agree on a candidate as Chair, that person shall be appointed by the Commonwealth Minister as Chair of the Board.
 - (v) In the event a majority of Ministers are unable to agree, the process described at sub paragraphs (ii) to (iv) above shall be repeated until a person is appointed as Chair of the Board.’
 - b) A new subparagraph (c)(vi) be inserted immediately following the new subparagraph (c)(v) which shall read as follows:
 - ‘(vi) Subject to subparagraph (c)(iv), the Commonwealth Minister shall appoint a person to be Chair of the Australian Building Codes Board for a period of four years.’

Membership

14. Subparagraph (d)(ii) be renumbered as subparagraph (d)(vii).
15. New subparagraphs (d)(ii), (iii), (iv), (v) and (vi) be inserted which shall read as follows:
 - (ii) 'The Commonwealth Minister shall provide to the State and Territory Ministers a list of persons recommended by the ACIF for selection as members of the Board.
 - (iii) Pursuant to paragraph 3.3(c) of this Agreement, the Commonwealth Minister shall nominate a person, or persons, from a list of names provided by the ACIF for selection of membership to the Board ('the list') and shall advise the State and Territory Ministers of the nomination(s).
 - (iv) Where a majority of Ministers agree on a candidate, that person shall be appointed to the Board.
 - (v) In the event that a majority of Ministers are unable to agree, the process described at subparagraphs (iii) to (v) above shall be repeated until the required number of persons are appointed.
 - (vi) The terms for the three representatives of the building and construction industry to be appointed, or re-appointed, to the Board in the year 2001 are to be one, two and three years, with one representative being replaced every year. All subsequent appointments of existing or new building and construction representatives are to be for four years.'

Quorum

16. Subparagraph (f)(i) (at page 3) be amended by deleting the words 'eight members' and inserting the words 'two-thirds of Board membership' so that subparagraph (f)(i) shall read as follows:
 - (i) The quorum for a meeting shall be two-thirds of Board membership.'

Funds

17. Subparagraph (E)(a)(i) (at page 6) be deleted and a new subparagraph (E)(a)(i) be inserted which shall be read as follows:

'The annual contributions of the Administrations determined in accordance with Part IV of the Agreement and any other payments made to the Board, in respect of the affairs of the Board, will form a fund to be known as the Australian Building Codes Board Fund ('the Fund') and will be paid into the Australian Building Codes Board Account ('the Account') which shall be a Special Account under section 20 of the *Financial Management and Accountability Act 1997 (Cth)*'.

DELEGATIONS AND AUTHORISATIONS

Financial Delegations

18. Delete subparagraph (I)(a)(i) and renumber sub paragraphs (ii), (iii) and (iv) to sub paragraphs (i), (ii) and (iii) respectively.
19. The new subparagraph (I)(a)(i) (formerly sub paragraph (I)(a)(ii) (at page 8) be amended by including reference to the relevant provisions of the *Financial Management and Accountability Act 1997* and deleting the words ‘one hundred thousand dollars (\$100,000)’ and inserting the following words ‘five hundred thousand dollars (\$500,000)’ so that subparagraph (I)(a)(i) shall now read as follows:

‘(i) The ED shall have the power, subject to clause 4.3 of the Agreement and the relevant provisions of the *Financial Management and Accountability Act 1997* (Cth), without prior approval of the Board to expend up to \$500,000 or such higher amounts as determined by the Board, in any one instance upon commissioning reports, initiating research investigations or other such actions as deemed necessary for the achievement of the Objectives of the Board.’

Part II — Interpretation

20. A new paragraph 2.3 be inserted (at page 6) immediately after paragraph 2.2 which shall be read as follows:

‘2.3 The Intellectual Property and Indemnity Deeds entered into by the Commonwealth, the States and the Territories on 11 October 1996 and 7 November 2000 respectively form part of this Agreement and are to be read in accordance with this Agreement.’
21. Except as set out in this Variation of Agreement, all other provisions of the Agreement remain unchanged.

AUSTRALIAN BUILDING CODES BOARD

STANDING ORDERS

A. THE AUSTRALIAN BUILDING CODES BOARD

(a) Meetings

- (i) The Board shall meet at least once in each calendar year.
- (ii) The times and dates of meetings shall be determined by the Board.
- (iii) Decisions of the Board may be made by communication between its members without the need for a formal meeting to be called, upon the agreement of a majority of those entitled to attend and vote at any meeting of the Board and subject to all members being consulted on each matter for decision and informed of the decisions.

(b) Responsibilities

The Board shall be responsible for implementation of the program and to:-

- (i) develop, advise and make recommendations to the Council on policy and other matters consistent with the Objectives of the Agreement;
- (ii) prepare and furnish annually to the respective Ministers, a program which shall give details of progress, projects, priorities, funds expenditure and overall performance in the achievement of Objectives;
- (iii) provide overall direction, approval of work programs, monitor and determine financial expenditure, and determine priorities;
- (iv) provide for a program of consultation with industry, consumer groups and other organisations; and
- (v) provide direction to the ED in the fulfilment of duties.

c) Chair

- (i) The Board shall appoint one of its members to the Chair for a period as specified by the Board.
- (ii) If at any meeting of the Board the Chair is not present, the members present shall appoint one of their number to preside at that meeting and exercise the normal powers of the Chair.

(iii) A person shall cease to hold office of the Chair if that person resigns or ceases to be a member of the Board.

(iv) A retiring Chair shall be eligible for reappointment.

(d) Membership

(i) Membership of the Board shall be as provided in the Agreement.

(ii) A person ceases to be a member of the Board if he or she ceases to retain the qualification by which membership was attained or if the member resigns the office by instrument in writing or is removed from office by the Council.

(e) Voting Rights

(i) Each member of the Board or duly appointed deputy, shall be entitled to exercise one deliberative vote on any matter for decision.

(ii) Decisions of the Board shall be by a simple voting majority of those members entitled to vote.

(iii) In the event of an equality of votes the status quo shall prevail.

f) Quorum

(i) The quorum for a meeting of the Board shall be eight members.

B. THE BUILDING CODES COMMITTEE

(a) Meetings

(i) Meetings of the Committee shall be convened by the ED or the Board as required for the efficient management of the program.

(ii) The venue for meetings shall be determined by the ED or as directed by the Board.

(iii) Decisions of the Committee may be made by communication between its members without the need for a formal meeting to be called, upon the agreement of a majority of those entitled to attend and vote at any meeting of the Committee and subject to all members being consulted on each matter for decision and informed of the decisions.

(b) Responsibilities

(i) The Committee shall be the peak technical advisory body to the Board. Technical matters associated with the Building Code of Australia ("the BCA") shall be presented to the Committee for advice prior to going to the Board.

ii) The Committee shall have such decision making powers in respect of technical matters as delegated by the Board from time to time.

(c) Membership

-
- (i) The Committee shall consist of the ED, ten members comprising one person nominated by each Commonwealth, State, Territory and ALGA member of the Board, and three industry members appointed by the Board.
 - (ii) A person ceases to be a member of the Committee if he or she ceases to retain the qualification by which membership was attained or if the member resigns the office by instrument in writing or is removed from office by the Council or the Board.
 - (iii) A member of the Committee may appoint a deputy.

(d) Chair

- (i) The Chair of the Committee shall be the ED appointed by the Board.

(e) Voting Rights

- (i) Each member of the Committee, or duly appointed deputy, shall be entitled to exercise one deliberative vote on any matter for decision.
- (ii) Decisions of the Committee shall be by a simple voting majority of those members entitled to vote. Decisions cannot be taken that lead to a State or Territory variation to the BCA and such matters, once considered by the Committee, must then be referred to the Board for decision.
- (iii) In the event of an equality of votes the status quo shall prevail.

(f) Quorum

- (i) The quorum for a meeting of the Committee shall be eight members.

C. THE EXECUTIVE DIRECTOR AND STAFF

(a) Functions

- (i) The ED shall, at the direction of the Board, co-ordinate, manage and implement the reform program including responsibility for:-
 - financial management;
 - technical support services;
 - administrative and operational support;
 - management of research projects;
 - consultation and liaison;
 - information dissemination;
 - advice on policy development;
 - management and co-ordination of committee activities; and
 - other matters as determined by the Board.

-
- (ii) The ED shall, on request and at least once in each year, report to the Board on the achievement of the Objectives of the Agreement.
 - (iii) The ED shall manage the funds of the Board in accordance with policy of the Council, directions of the Board and any statutory requirements.
 - (iv) The ED shall discharge duties and functions in the administration of the national building regulatory program in an expeditious, efficient, fair and honest manner.

(b) Responsibility

The ED shall be responsible to the Board.

D. STATE AND TERRITORY ADMINISTRATIONS

(a) Responsibilities

- (i) Each of the Administrations shall have the general responsibility of providing support appropriate to facilitate, within that State or Territory, the work of the Board, including liaison and co-operation with the ED, timely advice on the implications of proposals of the Board which are affected by legislation of the State or Territory, and timely advice on other matters as requested by the Board.

E. FUNDS

(a) Australian Building Codes Board Fund

- (i) The annual contributions of the Administrations determined in accordance with Part IV of the Agreement and any other payments made to the Board, in respect of the affairs of the Board, will form a fund to be known as the Australian Building Codes Board Fund ("the Fund") and will be paid into the Australian Building Codes Board Fund Trust Account ("the Account") established under Section 62A of the Audit Act 1901.
- (ii) Monies forming part of the Fund may be paid out of the Account for the purposes of the Board upon the authority of the Chair of the Board or ED, in accordance with decisions of the Board.
- (iii) Monies standing in the Account at the date upon which the Agreement enters into force shall be deemed to have been paid into the Account in accordance with the Agreement and will form part of the Fund.
- (iv) Monies expended by the ED upon the authorisation of the Board shall be deemed to have been expended by the parties to the Agreement and any contract to be entered into for the purposes of and with the authority of the Board may be entered into by the ED on behalf of the parties to the Agreement

F. CONSULTANTS

(a) Functions

- (i) Subject to the availability of funds, consultants may be engaged to carry out tasks associated with the functions of the Board where determined by the Board.

(b) Terms of Engagement

- (i) The terms and conditions on which consultants are engaged under Clause F (a) (i) shall be as from time to time adopted or approved by decision of the Board.

G. TRAVEL AND MEETING COSTS

(a) Members and Deputies

- (i) Travel and other costs incurred by members or deputies in pursuit of the business of the Board or the Committee may be met from the Fund as determined by the Board from time to time and upon the approval of the Board or the ED.

(b) Special Appointments

- (i) The Board may, where it wishes to appoint a particular person whose services are required in a research or consultative capacity, agree to pay the travel and other costs associated with the services of that person.

H. REPRESENTATION ON OTHER BODIES

(a) Representation

- (i) The Board may be represented on another body or bodies in accordance with resolutions of the Board.

I. DELEGATIONS AND AUTHORISATIONS

(a) Financial Delegations

- (i) The Chair of the Board shall have the power, subject to Clause 4.3 of the Agreement and without prior approval of the Board, to expend up to one hundred thousand dollars (\$100,000) or such higher amount as determined by the Board, in any one instance upon commissioning reports, initiating research investigations or such other actions as deemed necessary for the execution of the Objectives of the Board.
- (ii) The ED shall have the power, subject to Clause 4.3 of the Agreement and without prior approval of the Board, to expend up to one hundred thousand dollars (\$100,000) or such higher amount as determined by the Board, in any one

instance upon commissioning reports, initiating research investigations or such other actions as deemed necessary for the execution of the Objectives of the Board.

- (iii) Any action taken pursuant to paragraph (i) or (ii) shall be reported to the Board.
- (iv) The provisions of this section shall not derogate from the power of the Board to delegate its powers.

C ABCB membership

Table C.1 **ABCB Membership**
(as at October 2004)

<i>Name</i>	<i>Represents</i>	<i>Position/Organisation</i>
Peter Laver	ABCB	Chair, Australian Building Codes Board
Alice Spizzo	New South Wales	Executive Director, Office of the Director General, Department of Infrastructure Planning and Natural Resources, NSW
Tony Arnel	Victoria	Commissioner, Building Commission, Victoria
Dr Ted Campbell	Queensland	Director General, Dept of Local Government & Planning, QLD
Peter Gow	Western Australia	Executive Director, Office of Policy and Planning, WA
Bronwyn Halliday	South Australia	Executive Director, Planning SA
Graeme Hunt	Tasmania	Manager, Building Standards and Regulation, Dept of Infrastructure, Energy and Resources, Tasmania
Neil Savery	ACT	Chief Planning Executive, Planning and Land Authority, Australian Capital Territory
John Gronow	Northern Territory	Executive Director, Planning and Building, Department of Infrastructure, Planning and Environment, NT
Ken Pettifer	Australian Government	Head of Division, Manufacturing, Engineering and Construction division, Australian Government Department of Industry Tourism and Resources
Cr John Chandler	Local Government	Australian Local Government Association
Peter Carter	Industry	Director, Carter Building and Design Pty Ltd
John McCarthy	Industry	Group Property Executive, AEH Property Group
Caroline Pidcock	Industry	President, NSW Chapter of the RAIA

Source: ABCB web page — see http://www.abcb.gov.au/index.cfm?fuseaction=CommitteeView&Committee=Committee_Australian_Building_Codes_Board

D BCA objectives

This appendix provides more detail on the objectives set out in the Building Code of Australia (BCA). As noted in chapter 2, the objectives form the highest level in the BCA hierarchy and represent what the ABCB considers to be the ‘community expectation’ (and aim of the regulation) in relation to each area of building performance. Together, they provide an indicative outline of the present coverage of the BCA. The functional statements, performance requirements and deemed-to-satisfy solutions are the subsequent levels of the BCA (see chapter 2).

Tables D.1 and D.2 show the objectives of each section of volume one and volume two of the BCA respectively. The first section of each volume (not shown in the table) outlines the broad structure and administrative arrangements of the BCA including: the application and structure of the BCA; interpretation of the BCA; acceptance of design and construction methods (including suitability of materials); and the classification of buildings and structures (see box 1.1).

Table D.1 Coverage of Volume One

<i>Section</i>	<i>Part</i>	<i>Objective</i>
Structure (Section B)	Structural Provisions (Objective BO1)	<ul style="list-style-type: none">• safeguard people from injury caused by structural failure.• safeguard people from loss of amenity caused by structural behaviour.• protect other property from physical damage caused by structural failure.• safeguard people from injury that may be caused by failure of, or impact with, glazing.
Fire Resistance (Section C)	Fire Resistance (Objective C01)	<ul style="list-style-type: none">• safeguard people from illness or injury due to a fire in a building.• safeguard occupants from illness or injury while evacuating a building during a fire.• facilitate the activities of emergency services personnel.• avoid the spread of fire between buildings.• protect <i>other property</i> from physical damage caused by structural failure of a building as a result of fire.
Access and Egress (Section D)	Access and Egress (Objective D01)	<ul style="list-style-type: none">• provide, as far as is reasonable, people with safe, equitable and dignified access to:<ul style="list-style-type: none">(i) a building; and(ii) the services and facilities within a building.• safeguard occupants from illness or injury while evacuating in an emergency.

Continued next page

Table D.1 (continued)

Section	Part	Objective
Services and Equipment (Section E)	Fire Fighting Equipment (Objective E01)	<ul style="list-style-type: none"> • safeguard occupants from illness or injury while evacuating during a fire. • provide facilities for occupants and the <i>fire brigade</i> to undertake fire-fighting operations. • prevent the spread of fire between buildings.
	Smoke Hazard Management (EO2)	<ul style="list-style-type: none"> • safeguard occupants from illness or injury by warning them of a fire so that they may safely evacuate. • safeguard occupants from illness or injury while evacuating during a fire.
	Lift Installations (EO3)	<ul style="list-style-type: none"> • facilitate the safe movement of occupants. • facilitate access for emergency services personnel to carry out emergency procedures and assist in the evacuation of occupants.
	Emergency Lighting, Exit Signs and Warning Systems (EO4)	<p>In an emergency, to safeguard occupants from injury by:</p> <ul style="list-style-type: none"> • having adequate lighting; • having adequate identification of exits and paths of travel to exits; and • being made aware of the emergency.
Health and Amenity (Section F)	Damp and Weather-proofing (Objective F01)	<ul style="list-style-type: none"> • safeguard occupants from illness or injury and protect the building from damage caused by: <ul style="list-style-type: none"> (i) <i>surface water</i>; (ii) external moisture entering a building; and (iii) the accumulation of internal moisture in a building • protect <i>other property</i> from damage caused by redirected <i>surface water</i>.
	Sanitary and Other Facilities (FO2)	<ul style="list-style-type: none"> • safeguard occupants from illness caused by infection. • safeguard occupants from loss of amenity arising from the absence of adequate personal hygiene facilities. • enable occupants to carry out laundering. • provide for facilities to enable food preparation. • enable unconscious occupants of <i>sanitary compartments</i> to be removed from the compartment.
	Room Sizes (FO3)	Safeguard occupants from injury or loss of amenity caused by inadequate height of a room or space.
	Light and Ventilation (FO4)	<ul style="list-style-type: none"> • safeguard occupants from injury, illness or loss of amenity due to: <ul style="list-style-type: none"> (i) isolation from natural light; and (ii) lack of adequate artificial lighting • safeguard occupants from illness or loss of amenity due to lack of air freshness.
	Sound Transmission and Insulation (FO5)	<p>Safeguard occupants from illness or loss of amenity as a result of undue sound being transmitted:</p> <ul style="list-style-type: none"> • between adjoining <i>sole-occupancy units</i>; • from common spaces to <i>sole-occupancy units</i>; and • from parts of different classifications to <i>sole-occupancy units</i>.

Continued next page

Table D.1 (continued)

Section	Part	Objective
Ancillary Provisions (Section G)	Minor Structures and Components (Objective G01)	<ul style="list-style-type: none"> • safeguard people from illness caused by the discharge of <i>swimming pool</i> waste water. • protect <i>other property</i> from damage caused by the discharge of <i>swimming pool</i> waste water. • safeguard young children from drowning or injury in a <i>swimming pool</i>. • safeguard occupants from illness or injury resulting from being accidentally locked inside spaces which are designed to be entered for short periods of time only and in which occupation for longer periods may be hazardous.
	Heating Appliances, Fireplaces, Chimneys and Flues (GO2)	<ul style="list-style-type: none"> • safeguard occupants from illness or injury caused by: <ol style="list-style-type: none"> (i) fire from combustion appliances installed within a building; and (ii) malfunction of a pressure vessel installed within a building. • protect a building from damage caused by the malfunction of a pressure vessel installed within.
	Atrium Construction (Part G3)	This section contains deemed-to-satisfy provisions related to the construction of atriums (including fire safety provisions).
	Construction in Alpine Areas (GO4)	Safeguard occupants in <i>alpine areas</i> from illness or injury from an emergency while evacuating a building.
	Construction in Bushfire Prone Areas (GO5)	<ul style="list-style-type: none"> • safeguard occupants from injury. • protect buildings from the effects of a bushfire.
Special Use Buildings (Section H)	Theatres Stages and Public Buildings	This section contains additional deemed-to-satisfy measures for Theatres, Stages and Public Halls.
Maintenance (Section I)	Equipment and Safety Installations (Objective I01)	Ensure that people are protected from illness, injury and loss of amenity throughout the life of the building.

Source: BCA96 Volume One.

Table D.2 Coverage of Volume Two

<i>Part</i>	<i>Sub-Part</i>	<i>Objective</i>
Structure (Objective O2.1)		<ul style="list-style-type: none"> • safeguard people from injury caused by structural failure. • safeguard people from loss of amenity caused by structural behaviour. • protect <i>other property</i> from physical damage caused by structural failure. • safeguard people from injury that may be caused by failure of or impact with glazing
Damp and Weather- proofing (Objective O2.2)		<ul style="list-style-type: none"> • safeguard occupants from illness or injury and protect the building from damage caused by: <ul style="list-style-type: none"> (i) <i>surface water</i>; (ii) external moisture entering a building; (iii) the accumulation of internal moisture in a building; and (iv) discharge of <i>swimming pool</i> waste water. • protect <i>other property</i> from damage caused by: <ul style="list-style-type: none"> (i) redirected <i>surface water</i>; and (ii) the discharge of <i>swimming pool</i> waste water.
Fire Safety (Objective O2.3)		<ul style="list-style-type: none"> • safeguard the occupants from illness or injury: <ul style="list-style-type: none"> (i) by alerting them of a fire in the building so that they may safely evacuate; (ii) caused by fire from heating appliances installed within the building; and (iii) in <i>alpine areas</i>, from an emergency while evacuating the building. • avoid the spread of fire. • protect a building from the effects of a bushfire.
Health and Amenity	Wet Areas (Objective O2.4.1)	Safeguard the occupants from illness or injury and protect the building from damage caused by the accumulation of internal moisture arising from the use of <i>wet areas</i> in a building.
	Room Heights (Objective O2.4.2)	Safeguard the occupants from injury or loss of amenity caused by inadequate height of a room or space.
	Facilities (Objective O2.4.3)	<ul style="list-style-type: none"> • safeguard occupants from illness caused by infection. • safeguard occupants from loss of amenity arising from the absence of adequate personal hygiene facilities. • enable occupants to carry out laundering. • provide for facilities to enable food preparation. • enable unconscious occupants of <i>sanitary compartments</i> to be removed from the compartment.
	Light (Objective O2.4.4)	Safeguard occupants from injury, illness or loss of amenity due to: <ul style="list-style-type: none"> (i) isolation from natural light; and (ii) lack of adequate artificial lighting.
	Ventilation (Objective O2.4.5)	Safeguard occupants from illness or loss of amenity due to lack of air freshness.

Continued next page

Table D.2 (continued)

<i>Part</i>	<i>Sub-Part</i>	<i>Objective</i>
	Sound Insulation (Objective O2.4.6)	Safeguard occupants from illness or loss of amenity as a result of undue sound being transmitted between adjoining dwellings.
Safe Movement and Access (Objective O2.5)		<ul style="list-style-type: none">• provide people with safe access to and within a building; and• safeguard young children from drowning or injury in a <i>swimming pool</i>.
Energy Efficiency (Objective O2.6)		Reduce greenhouse gas emissions by efficiently using energy.

Source: BCA96 Volume Two.

E Building industry

This appendix provides information about Australia's residential and non-residential building sectors (the building industry), as well as engineering construction.¹ Where relevant, the discussion encompasses inputs to the industry — for example, building materials (such as cement, timber, paint, steel and glass), as well as the services of selected professionals such as architects, surveyors and engineers.

E.1 Building Industry

Output

The building industry is a significant component of the Australian economy. In 2002-03, building work done — residential and non-residential — totalled \$47.1 billion, or 6.3 per cent of GDP. This sector's cyclical nature broadly reflects the wider economic cycle. However, as shown in figure E.1, over the last 20 years, the industry's share has varied from a high of 7.9 per cent during 1989-90 to a low of 5 per cent in 2000-01. This low followed the introduction of the GST in June 2000, which had brought forward many construction projects to avoid the application of the new tax. This, combined with the effect of building projects completed in time for the Sydney Olympics (held in September 2000), created a visible spike in building activity immediately before the introduction of the tax and a slump in new building immediately afterwards.

The recovery of the industry following this slump was led by the dominant residential sector, shown in figure E.2. At present, residential building accounts for slightly over two thirds (69.1 per cent by value) of the work done in the industry. The recovery was prompted not only by general economic conditions, but also by sustained low interest rates and a moderate 'pull forward' effect from the

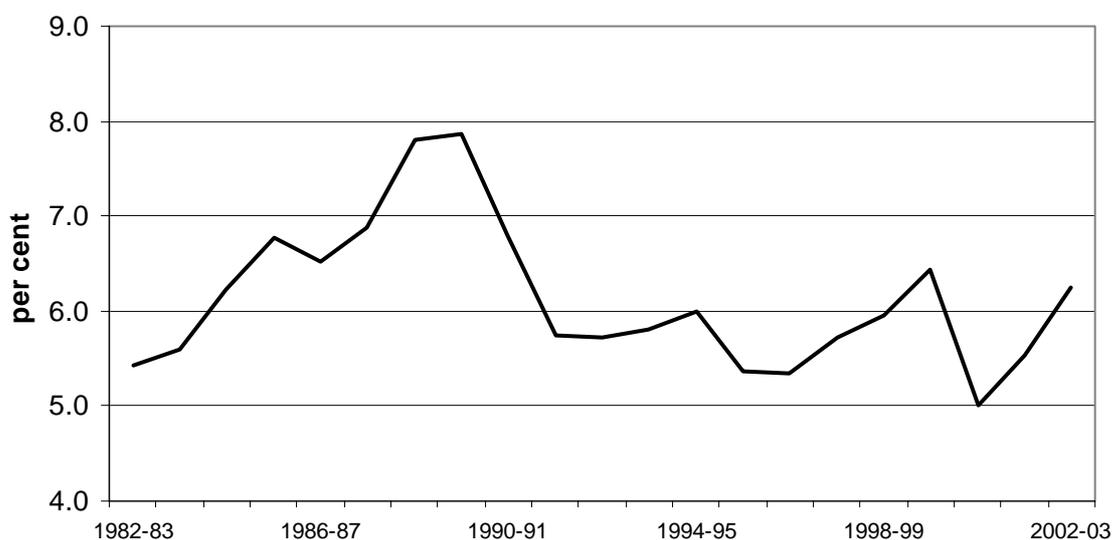
¹ In terms of ANZSIC classifications, this appendix covers Division E (Construction), specifically 411 (Building Construction), 42 (Construction Trade Services) and 412 (Non-Building Construction).

introduction of the First Home Owners Scheme by the Australian Government.² Additionally, changes in the taxation of housing led to an increased demand for investment properties:

Clearly, the 1999 change in the basis for levying CGT [Capital Gains Tax], being more or less coincident with the decline in returns from equities, has added to the recent housing price boom by encouraging investors to reduce current income in favour of longer term capital gains. (PC 2004b, p. 118)

These effects contributed to a booming property market and resulted in associated growth in the construction of new housing.

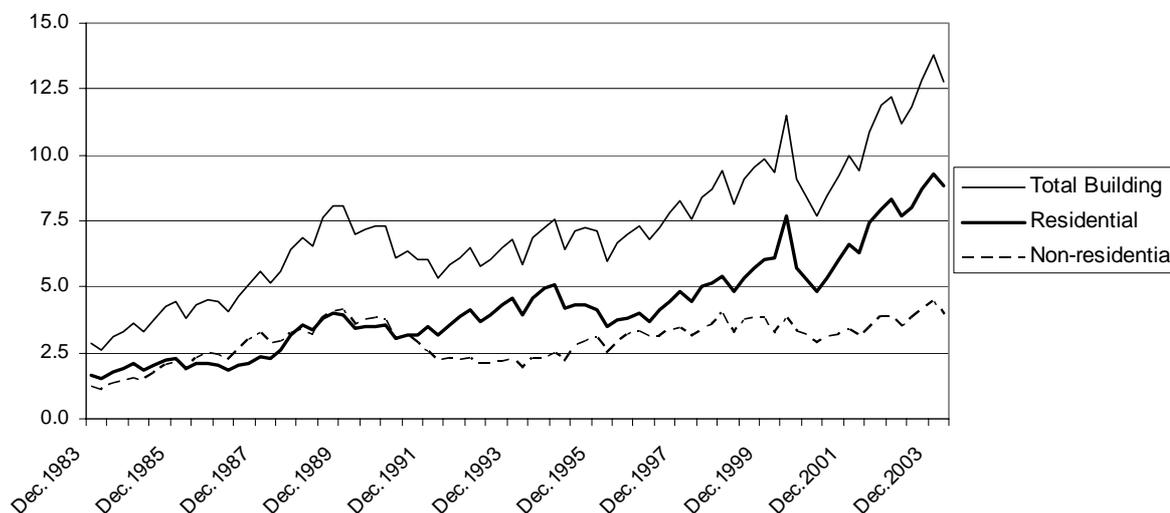
Figure E.1 **Contribution of building work done, 1982-83 to 2002-03**
percentage of GDP



Data source: ABS(*Building Activity, Australia*, Cat. no. 8752.0, *Australian System of National Accounts*, Cat. no. 5204.0).

² See, for example, PC 2004b (p. 217): "...Participants generally supported the view that the main effect of the FHOS has been to pull forward home purchases by those already capable of achieving home ownership in the *short term*, rather than significantly increasing the number of households with a realistic prospect of becoming home owners".

Figure E.2 Value of building work done by quarter, 1983-2004
Current prices, \$ billions



Data source: ABS (*Building Activity, Australia*, Cat. no. 8752.0).

Geographic distribution

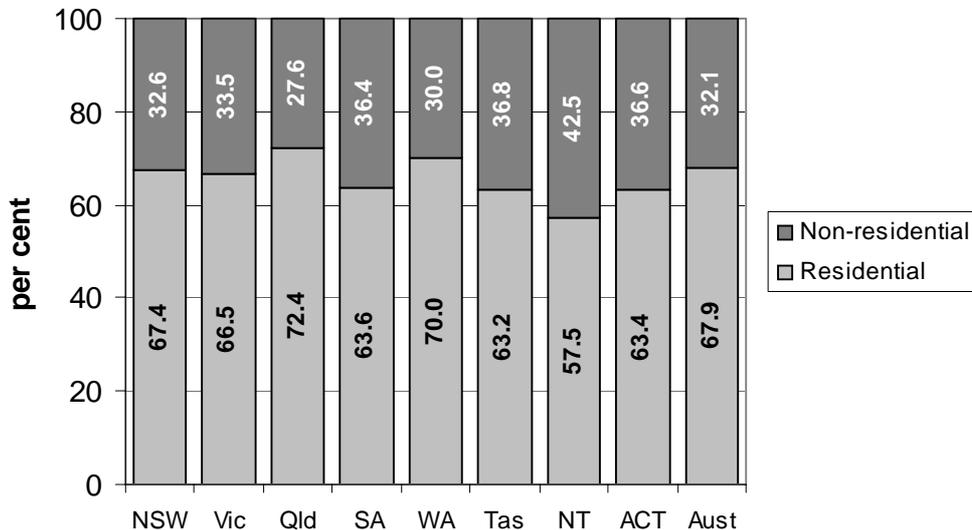
The building industry's significance varies across jurisdictions. Most States and Territories have a similar mix of residential and non-residential work, ranging from a mix of 57.5 per cent residential and 42.5 per cent non-residential in the Northern Territory to a 72.4 per cent and 27.6 per cent mix in Queensland (see figure E.3).

As figure E.4 shows, the industry output is naturally dominated by the larger states, with New South Wales accounting for the biggest share, closely followed by Victoria. New South Wales, Victoria and Queensland together accounted for 82 per cent of building activity in Australia in 2002-03.

Recently, Victoria has accounted for a larger share of activity than in the past. However, as figure E.5 indicates, this is more reflective of a large downturn in New South Wales following the completion of buildings before the Sydney Olympics in September 2000. This left New South Wales with a large stock of new buildings (for example, hotels), resulting in a subsequent diminished demand for new building work.

Figure E.3 Share of residential and non-residential building by jurisdiction, 2002-03

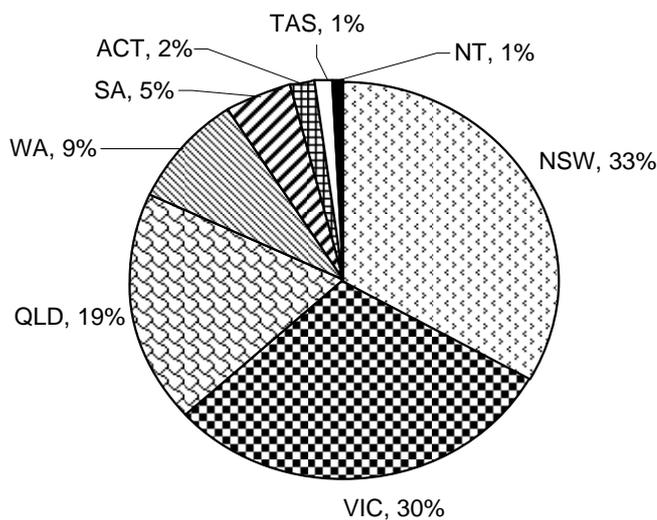
Percentage of building work done



Data source: ABS (*Building Activity, Australia*, Cat. no. 8752.0).

Figure E.4 Value of building work done, by State and Territory, 2002-03

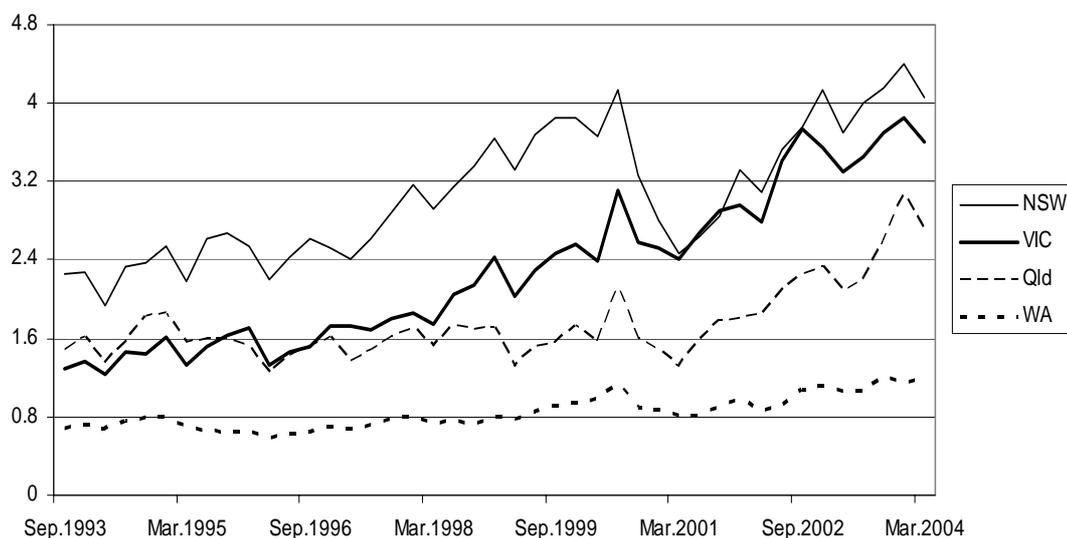
Percentage share



Data source: : ABS (*Building Activity, Australia*, Cat. no. 8752.0).

Figure E.5 **Building work done by quarter, selected States (New South Wales, Victoria, Queensland and Western Australia)**

\$ billions, current prices



Data source: : ABS (*Building Activity, Australia*, Cat. no. 8752.0).

Employment

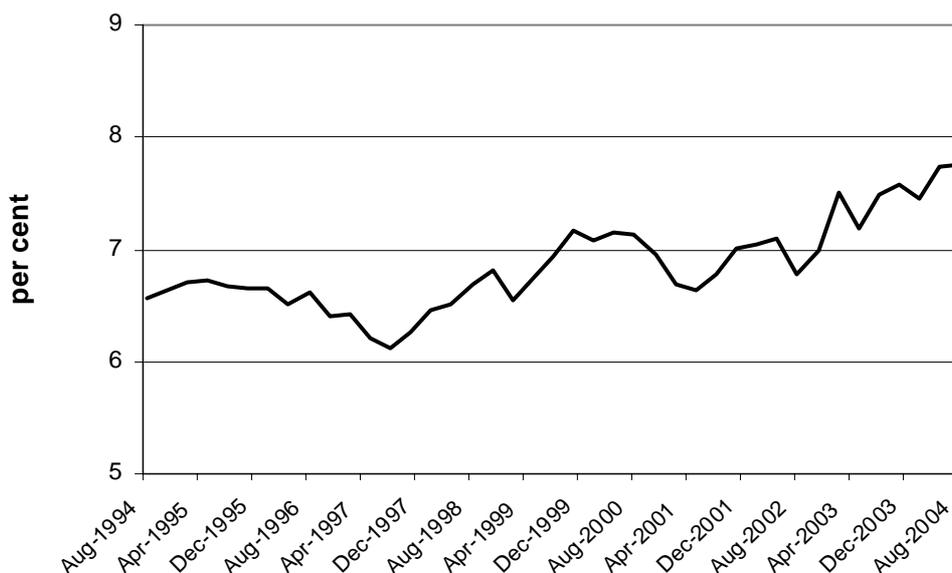
As with output, employment in the building industry represents a significant share of total employed persons. As shown in figure E.6, employment in the industry displays a similar, though less pronounced, cyclical nature to output, varying from 6.1 per cent of total employed persons in 1997 to a high of 7.8 per cent in 2004.

Small firms are prevalent in the building industry. In 1996-97, in the construction industry (including engineering construction), firms employing fewer than 5 people accounted for almost 94 per cent of the number of businesses and 69 per cent of employed persons. At the same time, less than 1 per cent of firms employed more than 20 people. But, despite their small number, these firms employed a large number of people — an average of 553 per firm — accounting for nearly 14 per cent of employed persons in the industry. The preponderance of small firms in the industry is highlighted by the fact that, for the industry as a whole, an average of 3.9 people are employed per firm.³ In fact, this measure includes engineering construction, a sector characterised by larger firms, and as such, could overstate the

³ ABS (*Private Sector Construction Industry, 1996-97: Australia*, Cat. No. 8772.0), Royal Commission into the Building and Construction Industry 2002a, p. 22.

average for the building industry. For example, within residential construction, an average of 2.3 people are employed per firm.⁴

Figure E.6 Building employment as a share of total employed persons, 1994 - 2004
percentage share



Data source: ABS (*Labour Force, Australia, Detailed*, Cat. no. 6291.0.55.001).

E.2 Engineering Construction

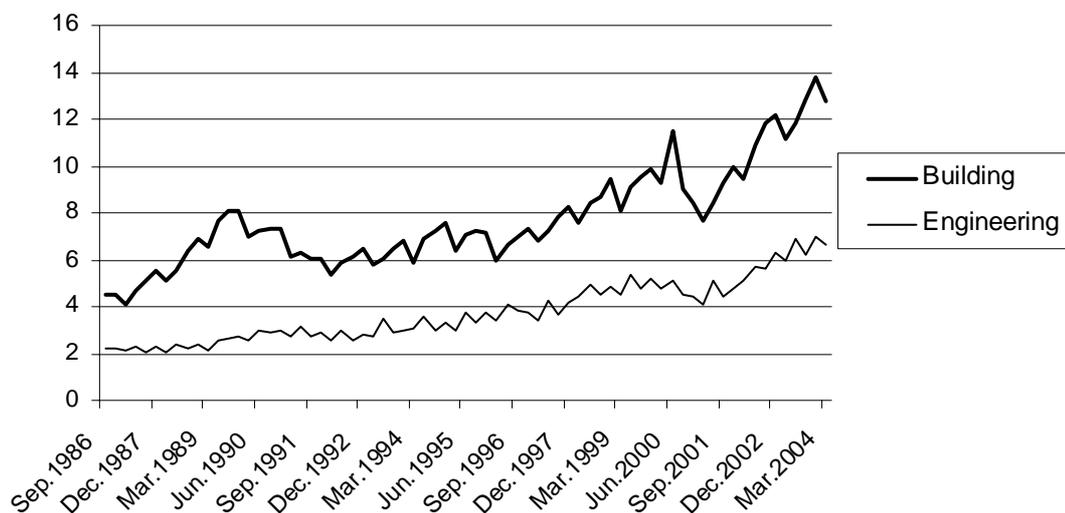
Engineering construction is not covered by the Commission's terms of reference, however, due to data constraints the productivity data presented in chapter 4 includes the engineering construction sector. As such, it is useful to note the characteristics of this segment of the industry and the contribution it makes to construction as a whole.

Output

Engineering construction work done has grown from \$2.2 billion in 1986 to be at \$6.6 billion in 2004 (see figure E.7). Following relatively stable growth from the mid-1980s through to the mid-1990s, there has been a slight increase in output growth, particularly from early 2001 through to 2004.

⁴ ABS (*Private Sector Construction Industry, 1996-97: Australia*, Cat. No. 8772.0)

Figure E.7 **Building and engineering construction work done by quarter, 1986 - 2004**
current prices, \$billion



Data source: ABS (*Building Activity, Australia*, Cat. no. 8752.0, *Engineering Construction Activity, Australia*, Cat. no. 8762.0).

Since 1986, engineering construction has accounted for roughly a third of the output of the construction industry (34 per cent in early 2004), varying from a low of 25 per cent in 1989, to a high of 38 per cent in 1996.⁵

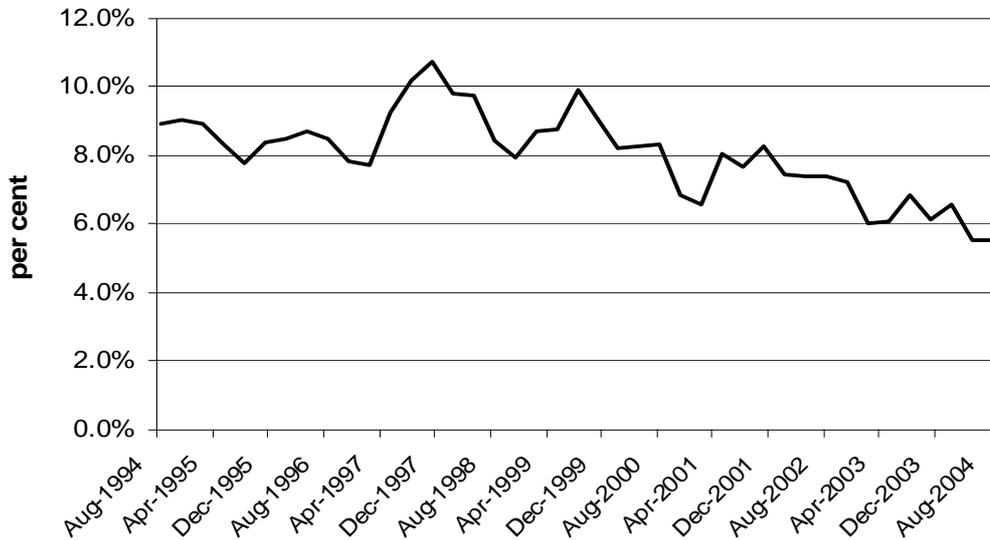
Employment

The engineering construction sector employs significantly fewer people than the building sector. As figure E.8 shows, employment in engineering as a share of employment in the construction industry has increased from almost 9 per cent in 1994, to 10.7 per cent in 1997, before falling to 5.5 per cent in 2004.

⁵ ABS (*Building Activity, Australia*, Cat. no. 8752.0, *Engineering Construction Activity, Australia*, Cat. no. 8762.0).

Figure E.8 **Engineering employment as a share of the construction industry, 1994 - 2004**

Percentage share



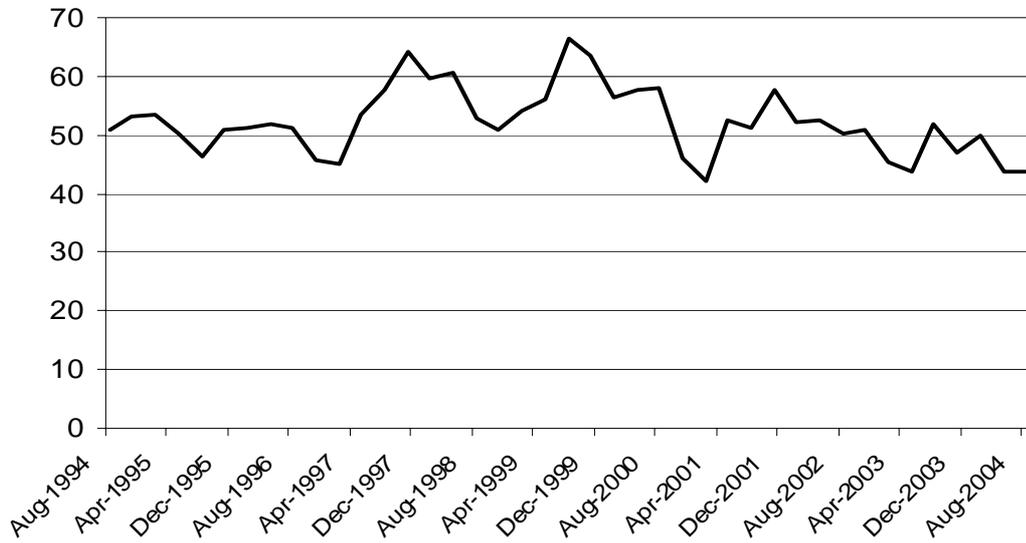
Data source: ABS (*Labour Force, Australia, Detailed*, Cat. no. 6291.0.55.001)

The share of engineering employment has declined since 1998. As figures E.9 and E.10 show, this was due to engineering construction employment decreasing while building employment rose sharply.

Thus, while both engineering and building output are increasing, this has been accompanied by a fall in employment in the engineering construction sector in recent years, and a rise in employment in the building sector (both in absolute terms and as a proportion of construction employment).

Figure E.9 **Engineering construction employment**

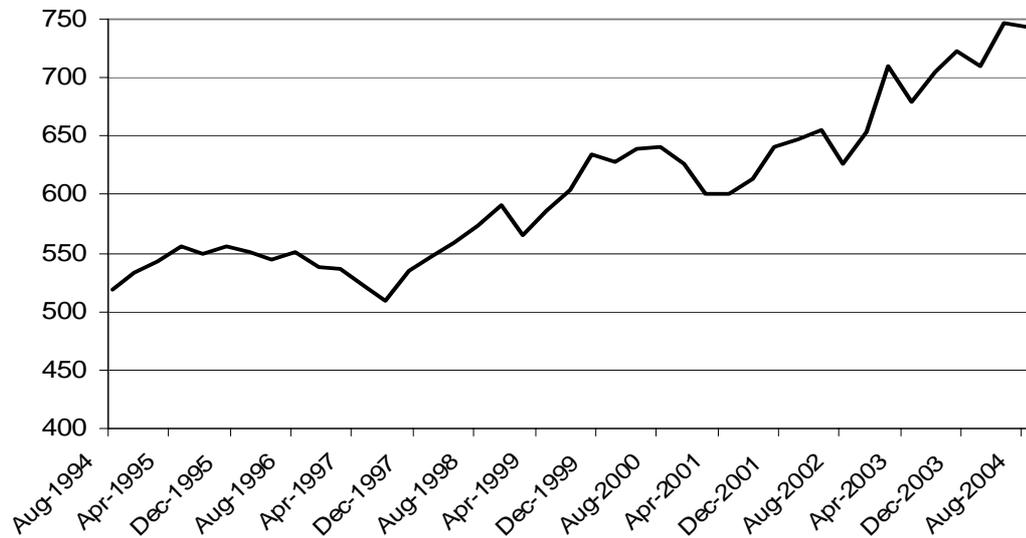
'000s employed



Data source: ABS (*Labour Force, Australia, Detailed*, Cat. no. 6291.0.55.001)

Figure E.10 **Building construction employment**

'000s employed



Data source: ABS (*Labour Force, Australia, Detailed*, Cat. No. 6291.0.55.001)

E.3 International trade in building

In addition to servicing the domestic market, the building industry is involved in international trade. This trade encompasses both the products associated with buildings (inputs such as steel and heating systems) and the services required to design and build them (for example, contractors, architects and engineers).

Trade in goods

Broadly, there are three types of products (building manufactures) associated with building that are internationally traded:

- Building materials: these are primarily raw materials needed for construction, such as iron and steel, cement, bricks, paint, glass, etc.
- Building products: mostly altered raw materials, such as wood products, plastics, pre-fabricated metal buildings, wood structures, floor coverings, etc.
- Building equipment and systems: these are the systems needed for buildings, such as electric cables, wires, lights and signs, commercial heating and cooling equipment, etc.

Exports of building-related goods increased over the 1990s, going from \$1.7 billion in 1989-90 to \$3.8 billion in 1997-98, before declining to \$3.0 billion, in 2001-02. This represented 3.4 per cent of total merchandise exports in 1989-90, 4.4 per cent in 1997-98 and 2.5 per cent in 2001-02.⁶

However, there are difficulties in identifying the extent to which these goods are destined for use in the building industry overseas. Building exports, particularly materials, can also be utilised as inputs into other industries. An example of this is the use of iron or steel in the manufacture of automobiles as well as buildings. As such, values for exports by product categories may overstate the trade in building. For products used within Australia, Input-Output tables can be used to determine the end use of intermediate goods (such as building products). To accurately measure the end use of exported building products would require the use of Input-Output tables (or a like statistical measure) in every destination market.

While an exact measure of trade in building products may not be possible, an estimate can be made by applying data from the Global Trade Analysis Project (GTAP) version 5 database. The database contains a usage pattern for each of its 57 internationally traded products. Assuming that Australian exports are used in the

⁶ ABS (*International Merchandise Trade, Australia, 1989-90-2001-02*, Cat. no. 5422.0, unpublished data).

same fashion as the destination country's own domestic goods, this database provides a basis on which to estimate the end use of those exports. For example, in 2001-02, Australia exported \$125.9 million of wood products, of which 36.5 per cent (\$45.9 million) are estimated to be destined for use in overseas construction industries. Similarly, 59.7 per cent (\$198.3 million) of non-metallic mineral products (which includes glass, cement, bricks and concrete products) are estimated to be used in construction industries. While only 11.5 per cent (\$111.7 million) of Australian iron and steel⁷ exports in 2001-02 were direct inputs into the construction industry, the largest single destination industry was the iron and steel industry itself, using 35.2 per cent (\$341.8 million) of iron and steel, indicating that the exported product may undergo further processing in destination countries before it is used as an input in other industries.⁸

Imports of building-related goods consistently increased over the 1990s and into 2001-02, going from \$5.7 billion in 1989-90 to \$11.1 billion in 2001-02. Building products recorded the largest level of imports in 2001-02 (nearly \$5.0 billion), while building systems recorded the lowest (almost \$1.7 billion).

As table E.1 shows, while all imports increased in all sub-categories since 1989-90, the rate of increase has differed across the sub-categories, with imports of building systems growing the fastest, although they have remained at levels significantly below both building materials and products. As with exports, not all imports will be used in the building industry and, as such, the values in table E.1 may overstate both the exports and imports destined for the building industry.

⁷ This measure covers ANZSIC 271, including basic iron and steel, iron and steel casting and forging and steel pipes and tubes.

⁸ Usage percentages derived from: GTAP version 5 database (accessed 27 July 2004).

Table E.1 **Trade in building manufactures, 1989-90 — 2001-02**
\$ million, current prices

<i>Year</i>	<i>Category</i>	<i>Exports</i>	<i>Imports</i>
1989-90	Building materials	1121.9	2876.1
	Building products	476.2	2352.4
	Building systems	73.5	486.1
	Total building manufactures	1671.6	5714.6
1995-96	Building materials	2319.1	3349.4
	Building products	1120.2	3305.0
	Building systems	318.7	847.4
	Total building manufactures	3758.0	7501.8
2001-02	Building materials	1493.2	4478.8
	Building products	1205.6	4964.6
	Building systems	324.6	1661.3
	Total building manufactures	3023.4	11 104.8

Source: ABS (*International Merchandise Trade, Australia, 1989-90-2001-02*, Cat. no. 5422.0, unpublished data).

Trade in services

While trade in services can take several forms, this section focuses on the provision of services by Australian-based firms to consumers in other countries (known as ‘cross-border provision’). Service provision involves the presence of the service provider in the receiving jurisdiction. Advances in technology have gone some way to facilitating increased trade in services — digital photography, video-conferencing and the internet may allow designs to be created, analysed and delivered without a designer or an architect leaving their home jurisdiction.

Total exports of building and construction services (a combination of construction, architectural, engineering and other technical services) generally grew over the 1990s, increasing from \$336 million in 1991-92, to a high of \$723 million in 1999-00, before declining over the last three years, so that they stand at \$589 million in 2003-04. These exports accounted for 1.7 per cent of total services exports in 2003-04.⁹

In 2003-04, construction services exports (which includes residential and non-residential building construction) made up 13.2 per cent of total building and

⁹ABS (*Balance of Payments and International Investment Position, Australia*, Cat. no. 5302.0).

construction services exports, up from a low of 4 per cent in 1998-99.¹⁰ This represented 0.2 per cent of total services exports in 2003-04 and less than 0.1 per cent in 1998-99. Construction services exports are not only small, but volatile, reaching a high of \$105 million in 1994-95 before falling to \$18 million in 1998-99 and recovering to be at \$78 million in 2003-04. This volatility is affected by both international and domestic conditions:

This volatility reflects the extent to which exports are effected by the cycles of domestic and international construction activity, the 'Asian Crisis' and the fact that there is still a significant extent to which exports are seen as a marginal activity which is indulged only when there is excess capacity/low demand in the domestic market. (CSES 2000, p. 47)

The strong performance of the domestic construction market in 1999 (see figures E.1 and E.2, above) would have absorbed most production capacity in the industry, contributing to a low export performance in 1998-99. Despite the small volume of exports, there is some scope for expansion in trade in residential construction services:

Engineering and non-residential building construction have been the major areas of international activity, but there are increasing opportunities to expand housing construction activities overseas – especially in Asia where urbanisation, rapidly growing populations and increasing wealth are feeding demand for urban housing developments. (CSES 2000, p. 44)

In 1999, as part of the building industry Action Agenda process, the (then) Department of Industry, Science and Resources (DISR) identified several challenges that the building sector faced in international trade. With respect to trade in services, these included restrictions on practitioner licensing as well as commercial requirements such as the use of local professionals or local joint venture partners. In order to improve the industry's capacity to trade, DISR (1999, pp. 69–71) recommended further alignment with international standards and further work be done to both inform the industry of opportunities available and to continue linkages with countries such as Japan.

As with exports, imports of building and construction services increased over the 1990s, going from \$235 million in 1991-92 to a high of \$559 million in 1999-2000, before declining to be at \$360 million in 2003-04.¹¹ There were no recorded imports in the available data for construction services from 1991-92 to the present.

¹⁰ ABS (*Balance of Payments and International Investment Position, Australia*, Cat. no. 5302.0).

¹¹ ABS (*Balance of Payments and International Investment Position, Australia*, Cat. no. 5302.0).

E.4 How do we compare internationally?

Comparing the performance of the Australian building industry with its overseas counterparts is not straightforward. As noted by Langston and Best (1999, p. 4), the construction industry generally has non-standard products, which are complex and combine a sophisticated range of inputs. There are also methodological and measurement problems that make international comparisons difficult:

- different countries may include or exclude different groups of labour in their statistics, which may work to under or overestimate a country's relative performance;
- techniques for determining value added differ across countries, as do adjustments for quality;
- different levels of training and R&D, and the stage of the business cycle in each country, also complicate comparisons; and
- the use of labour productivity as a basis for comparison may give a distorted picture. Relatively capital-intensive countries will tend to appear more productive in terms of labour productivity, but would fare less well in multifactor productivity measures that include capital inputs. (Unisearch 2002, pp. 4–5, 8)

This section attempts to collate evidence from a variety of sources, to present a picture of the Australian building industry in comparison to its overseas counterparts. Given the methodological difficulties, the evidence can only be regarded as indicative.

Crowley (2002) noted that construction costs are an important consideration when firms make decisions on the location of their facilities, with lower costs increasing the desirability and competitiveness of the location. He suggested there was room for improvement in the Australian construction industry:

... Australia is regarded as one of the most attractive locations in the world for investment in minerals processing activities. ... However, there are some concerns with construction cost levels in Australia compared to overseas ... Any improvement in productivity can be expected to significantly improve the financial viability of a large number of projects currently under consideration in the minerals processing and energy sectors. (2002, pp. 3–4)

Unisearch's 2002 discussion paper for the Royal Commission into the Building and Construction Industry drew together research evidence on the Australian building and construction industry's performance against four measures — productivity, cost, time and quality. The paper focused on comparisons with Canada, France, Germany, Japan, the UK, the USA and Singapore and found:

-
- Australia is on a par with Japan and Germany in value added per hour — slightly better than France and the UK but lagging the US, Canada and Singapore. The results are similar for value added per employee, with Australia on a par with Japan, better than the UK, Germany and France, and lagging the US, Canada and Singapore (p. 2);
 - Australia rated highly in terms of cost performance in international research comparisons and published series on construction costs (such as the OECD’s construction cost PPP index). The most common ranking for Australia was second, with Australia falling within the group of countries with a clear competitive advantage in most of the studies (p. 2); and
 - Time and quality were difficult to assess, with Australia featuring in only two studies that attempted to analyse time to completion or time overruns, and not at all in studies of quality in construction (pp. 21–2). However, the report suggested that the UK and Singapore were further advanced in the development of systematic quality assessment systems (p. 3).

Some of the specific findings from the research reports used by Unisearch are included in box E.1.

Interested parties generally believed Australia compared well with its overseas counterparts. For example, the MBA said:

Australia’s building and construction industry has been judged to be one of the most productive in the world. Our productivity has been well regarded overseas and our practices have been actively sought out by many countries for replication. (sub. 24, p. 3)

Box E.1 International comparisons – research findings

Pilat (1996) found Australian building and construction labour productivity in 1990 was above the US, Japan and all European nations, with only Canada recording a higher building and construction output per person. The author noted, however, that output and productivity in the building sector was quite cyclical and productivity differences may be due to the position of countries in their business cycles.

Lewis et al (1996) asserted that Australia's labour productivity in the building and construction industry was at 95 per cent of best practice, just behind the US and on a par with Germany, and that costs were lower than for the US, France, Germany, Sweden and Japan.

Langston and de Valence (1999) evaluated construction costs across seven standard projects (a hotel, office, factory, stadium, highway, railway and petrochemical facility) and found Australia in fifth place behind Germany, the United Kingdom, the US and Singapore. This was based on a comparison of local country costs, with a purchasing power parity (PPP) adjustment and some weighting of contextual factors such as climate, regulatory standards and site safety. Unisearch noted that the validity of the authors' approach to PPP adjustments was debatable (2002, p 10).

Langston and Best (1999) found Australia was a mid-range performer in the construction of high rise commercial office buildings, along with Singapore and Hong Kong. China, Malaysia and the Philippines demonstrated projects of high performance, while Japan and the United Kingdom were relatively poor performers. The concept of performance was based on an index of 'productivity' (square metres/month) and resource consumption (cost/square metre), with some weighting for the scope, extent of siteworks, standard of finish, energy efficiency, foundation material and internal fit-out. However, the study noted that, despite these adjustments, project costs still reflected some differences in local requirements, standards and expectations, so that comparisons were not strictly 'like with like'. The authors also noted some criticisms of their methodology for converting construction costs into comparable units.

F Survey results and methodology

This appendix presents the results of the Commission's survey of building surveyors. Its purpose, methodology and response rate are also outlined. A copy of the questionnaire is provided in the last section of the appendix (F.4).

F.1 Purpose and methodology

As part of the terms of reference for the study, the Commission was asked to assess the effectiveness of past building reforms in improving the productivity of the industry and maximising net benefits for the economy. Some information was available from existing studies, as well as submissions to the Commission and ABS data. However, due to the difficulties in separating the impact of past regulatory reforms from the myriad of other drivers of building industry performance over the same period, the Commission decided to supplement its existing information sources with a brief survey of building surveyors. The survey aimed to directly address the issue of how the reforms had impacted on industry performance.

Four building surveyors were contacted to seek their participation in a pilot of the survey. All agreed to participate and the pilot project was conducted via telephone interview. This exercise provided valuable insights into how respondents interpreted questions, thereby helping to determine the types of questions that could best be answered by building surveyors and the appropriate wording of questions. Using input from the pilot project and discussions with the Australian Institute of Building Surveyors (AIBS), the focus of the questionnaire was changed, with a greater emphasis on establishing respondents' attitudes towards regulatory reforms and a reduced emphasis on gathering quantitative estimates. Discussions were also held with five quantity surveyors.

The Commission is grateful for the assistance of the surveyors who participated in this survey.

F.2 Sample frame and response rate

The time available for the Commission study meant that a large and highly detailed survey was impractical. Instead, the approach taken was to gather the views of building surveyors with broad industry experience from some of the key surveying firms in each State/Territory, as well as a selection of smaller operators and council surveyors.

In total, 78 individuals and firms were asked to participate in the survey. Around half of these individuals and firms were contacted following discussions with AIBS State representatives, with the remainder collected via telephone business listings under 'Building Surveyors'. Of these, 44 provided completed survey forms. An overall response rate of 56 per cent was achieved, ranging from 65 per cent in Victoria to 43 per cent in Western Australia. Participants were selected for each State/Territory in broadly representative numbers — with the exception of Western Australia, which does not as yet have private certification (table F.1).

Table F.1 **Response by State/Territory**
number (and per cent in brackets)

	<i>NSW</i>	<i>VIC</i>	<i>QLD</i>	<i>WA</i>	<i>SA</i>	<i>Other</i>	<i>Total</i>
Total sampled	24	20	11	7	9	7	78
Total survey returns	11	13	7	3	7	3	44
<i>Response rate (per cent)</i>	<i>(46)</i>	<i>(65)</i>	<i>(64)</i>	<i>(43)</i>	<i>(78)</i>	<i>(43)</i>	<i>(56)</i>

Source: PC Building Survey 2004.

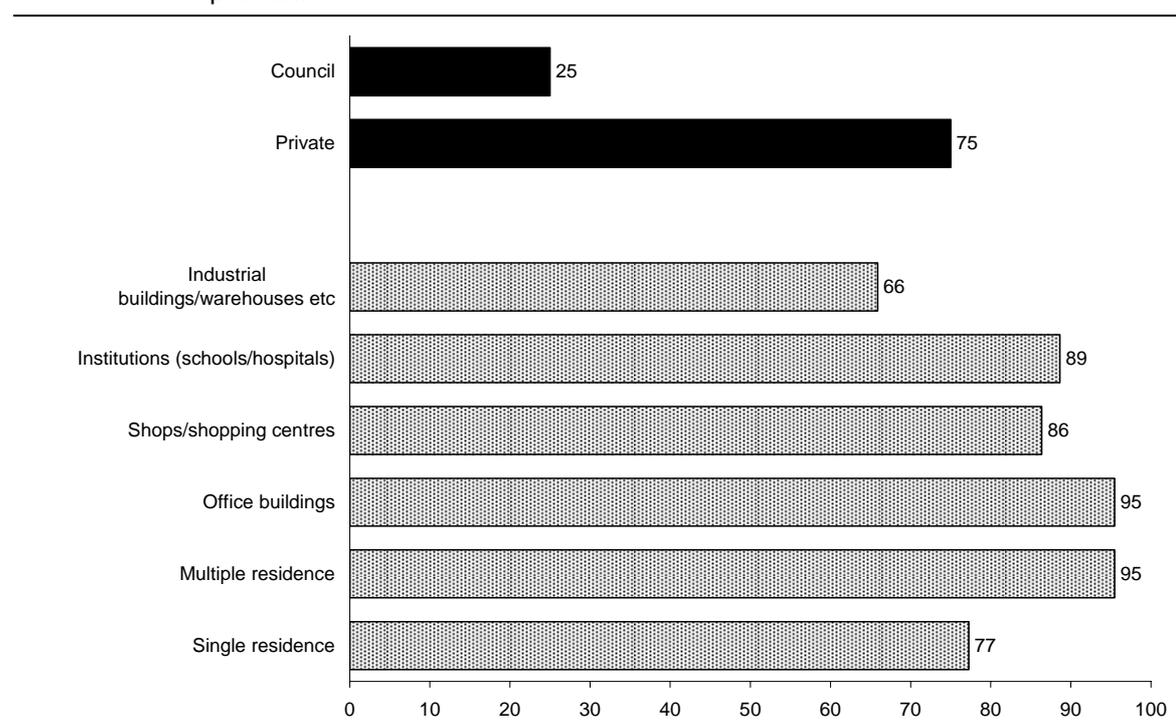
Respondents were asked to nominate the types of building work they had been involved in over the past two years. Results indicated a broad spread of experience of all building types — with office buildings and multiple residences being the most common building types and industrial buildings being the least common (figure F.1).

Three-quarters of respondents were private building surveyors (33 of 44) — either working for larger surveying firms or self employed — and the remaining one-quarter of respondents worked for councils. Although around 60 per cent of building surveyors work for councils, the majority of existing building work (in terms of expenditure) is already being assessed by private surveyors due to the tendency for larger commercial jobs to be handled more by private surveyors — with councils more likely to process relatively more of the smaller jobs, such as domestic additions and modifications. Moreover, according to the AIBS, the share of private building surveyors is rising steadily each year.

Sensitivity analysis indicates that for many questions, the relative proportions of private and council surveyors does not substantially influence the aggregate results. Although there was broad agreement in the responses across private and council surveyors on many issues, there was a key difference in the responses to the question about the overall impact of private certification on industry performance (council surveyors' responses are reported separately in figures F.8, F.9 and F.10). In addition, survey questions were framed as broadly as possible, or supplemented with open-ended follow-up questions, to allow individual respondents scope to express their views.

With membership of the AIBS around 2500 in 2004, the sample size represents around 3 per cent of the total. The small sample size means that quantitative estimates, such as the percentage change in industry costs and productivity due to reforms, would be of limited usefulness. Instead, the survey was designed to gather qualitative information in a systematic manner on the benefits and problems associated with key building reforms. While not constituting a comprehensive or definitive statement of the views of Australia's building surveyors, the information gathered from the survey provides an indication as to those aspects of the reforms about which there appears to be broad agreement — including perceived benefits and key areas of concern — as well as providing an indication of the diversity of views among building surveyors.

Figure F.1 Breakdown of survey respondents and industry experience
per cent



Data source: PC Building Survey 2004.

F.3 Survey results

The questionnaire comprised four sections. In the first three, respondents were asked to indicate agreement or disagreement with statements about performance-based regulation, private certification and other reforms to building regulation. These were followed by some open-ended questions where respondents were invited to discuss any adverse outcomes or issues associated with particular reforms. A fourth section sought information on general drivers of productivity and innovation in the building industry and the contribution to these made by regulatory reform.

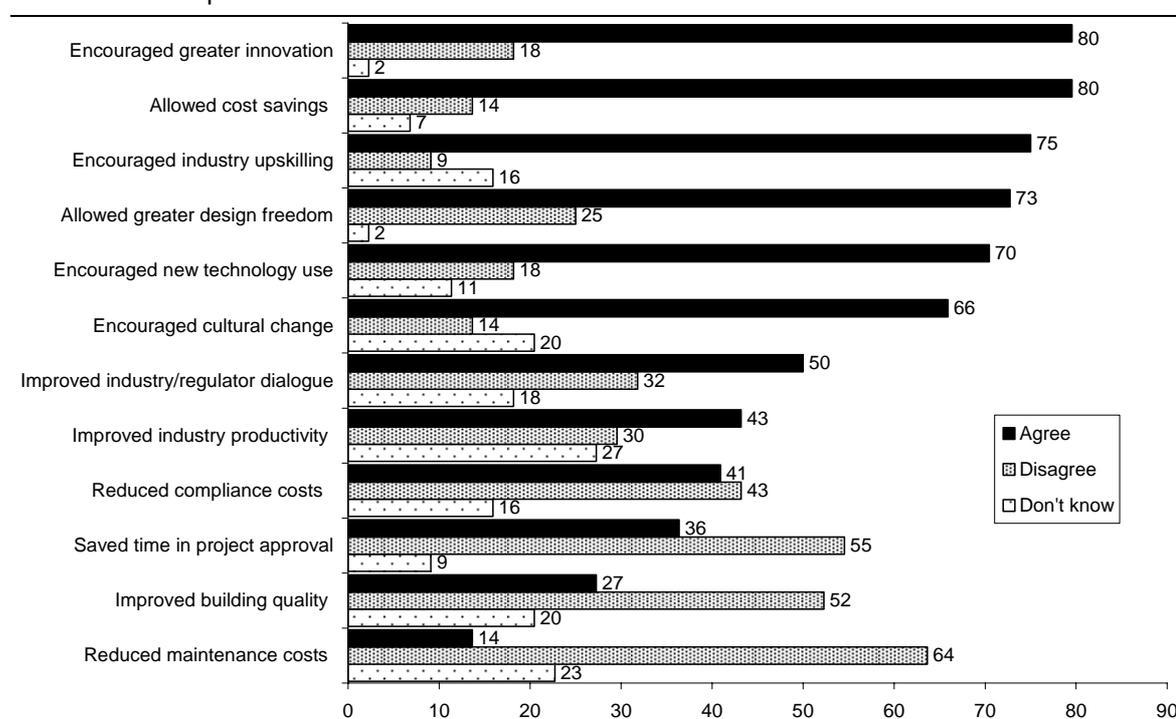
Performance-based regulation

Respondents were asked whether they agreed or disagreed with a series of twelve positive statements about the impacts of performance-based regulation, introduced via the BCA, on various aspects of industry performance (see the questionnaire form reproduced at the end of this appendix). Results can be classified into three broad categories:

- *Majority agreement.* There was broad agreement among most respondents that performance-based regulation had encouraged greater innovation in the planning and building stages; allowed cost savings; encouraged parts of the industry to upskill; allowed greater design freedom leading to new and cheaper building solutions; encouraged the use of new technology and encouraged cultural change in the industry (figure F.2 and table F.2).
- *Majority disagreement.* A majority of respondents disagreed with the statements that performance-based regulation had reduced building maintenance costs; saved time in gaining project approval; and improved building quality.
- *Mixed views.* Participants' responses were mixed as to the impacts of performance-based regulation on compliance costs, industry productivity and industry/regulator dialogue with no clear majority in each case.

These results include all responses received from private and council surveyors — with both groups showing similar response patterns. Council surveyors' responses are examined further in a separate section below.

Figure F.2 Respondents' views on the impacts of the introduction of performance-based regulation on industry performance^a
per cent



^a Categories are sorted in descending order by level of agreement with each statement. See questionnaire at the end of this appendix for original order. Totals may not sum to 100 due to rounding.

Data source: PC Building Survey 2004.

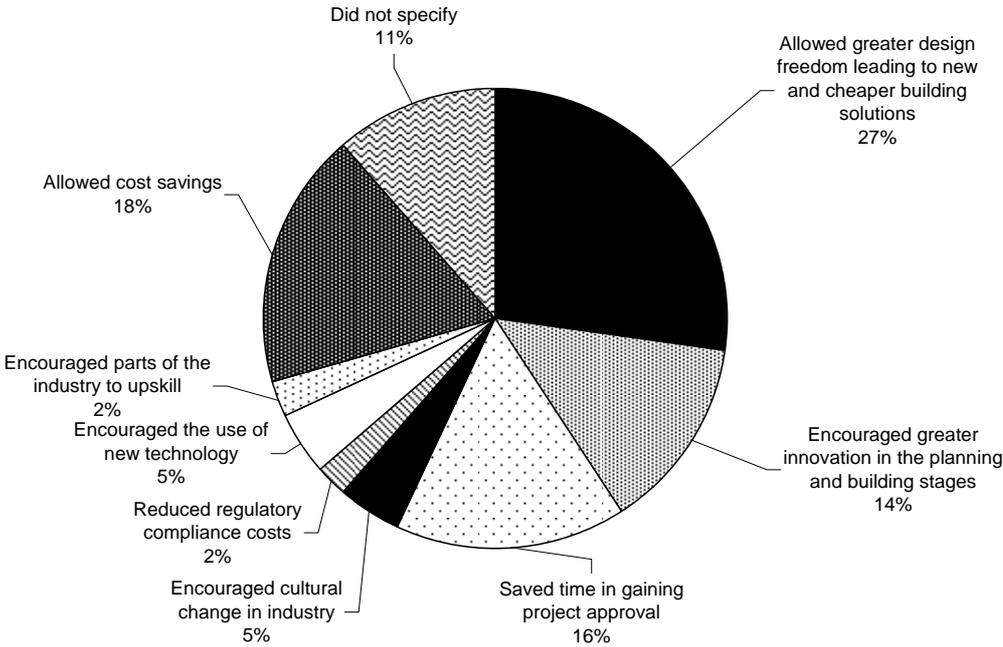
Table F.2 Impacts of performance-based regulation
per cent

	<i>Strongly agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strong disagree</i>	<i>Don't know</i>
Encouraged greater innovation in the planning and building stages	14	66	14	5	2
Allowed cost savings	20	59	9	5	7
Encouraged parts of the industry to upskill	16	59	7	2	16
Allowed greater design freedom leading to new and cheaper building solutions	25	48	23	2	2
Encouraged the use of new technology	20	50	16	2	11
Encouraged cultural change in industry	16	50	11	2	20
Improved dialogue between industry/regulators	18	32	27	5	18
Improved industry productivity	9	34	18	11	27
Reduced regulatory compliance costs	16	25	27	16	16
Saved time in gaining project approval	18	18	48	7	9
Improved building quality	5	23	36	16	20
Reduced building maintenance costs	2	11	45	18	23

Source: PC Building Survey 2004.

These data do not indicate the relative significance of the different factors on overall industry performance. For example, it does not necessarily follow that the most important benefit will be the one that garnered the largest percentage of positive responses. In a follow-up question, respondents were also asked to nominate the factor that is likely to have been of greatest benefit to the building industry. The results indicate that there was no clear majority view on which factor was most beneficial — with respondents nominating greater design freedom (27 per cent of respondents); cost savings (18 per cent of respondents); time saved in gaining project approval (16 per cent of respondents); and greater innovation (14 per cent of respondents) as important (figure F.3). The relatively high percentage that nominated time saved in gaining project approval as significant illustrates the differences in view among respondents. While most respondents disagreed with the statement that performance-based regulation had saved time (table F.2), around half of the 36 per cent who agreed saw it as a significant benefit.

Figure F.3 Factors rated most significant benefits stemming from performance-based regulation
per cent



Data source: PC Building Survey 2004.

Surveyors were also asked how widespread was the use of performance-based solutions. Whilst there was some variability in the estimates, the overwhelming majority of responses indicated that the use of performance-based solutions was very limited for residential building (in the order of 2-5 per cent) and quite common for commercial building (between 70 and 80 per cent). Architects, designers, fire engineers and building surveyors were the most commonly cited industry practitioners who used performance-based regulation.

Adverse outcomes

Care needs to be exercised in interpreting the results of agree/disagree type questions like those presented above (figure F.2 and table F.2). Disagreement with any particular statement cannot be automatically assumed to indicate that the respondent believes that the introduction of performance-based regulation has worsened outcomes for that characteristic — simply that they do not agree that it has improved them. However, a majority of respondents either disagreeing or strongly disagreeing with particular statements provides an indication of areas of concern, as does a very small percentage agreeing with a particular statement. The inclusion of more open-ended follow-up questions was designed to help clarify respondents' views expressed in the multiple choice questions.

Respondents were asked whether there had been any adverse outcomes associated with performance-based regulation. Just under four-fifths of respondents stated there had been some adverse outcomes — with the nature of concerns varying between jurisdictions. The most common issues raised were related to reductions in fire safety and quality assurance. It was argued by some respondents that performance-based solutions are often used by industry to minimize building cost by 'bone cutting' rather than 'fat trimming', such as removing key life safety or property protection components to save cost — leading to reductions in fire safety and potential legal problems. Moreover, one respondent commented that:

The savings to the developer will be offset by the legal costs to the owners. I am involved in a project at the moment where fire dampers were not put in plus there were some other short cuts. To do the job properly would have cost the developer (who is now uncontactable) \$200k. The rectification costs not including legal costs are now up to \$600k. This type of issue will become more commonplace based on my experience.

It was also noted that alternative solutions are sometimes used to justify errors in construction, with a concern by some respondents that the BCA does not provide adequate guidance or clear criteria to determine the merits of alternative solutions vis-à-vis D-T-S solutions.

A related concern was building maintenance and the lack of mandated inspection regimes that monitor maintenance of essential services. Many respondents noted

that performance-based solutions have placed a greater reliance on the maintenance of essential services/fire services. It was also claimed that the importance of this is not widely understood by building owners. One respondent noted the potential for:

... total confusion in terms of whether the building complies a few years down the track when the paperwork is lost, partially lost or difficult to track down.

Another respondent noted:

Buildings which rely on performance solutions rely on so many assumptions which in practice may not be accurate given the way the owners/occupiers use the building or want to use the building. Minor alterations to buildings necessitate costly fire engineered analysis. Future certification of the maintenance of performance solutions is problematic for maintenance subcontractors.

Hence, some surveyors argued for mandated maintenance requirements:

As many performance solutions require continual maintenance and management to remain effective, the lack of mandated regulation for maintenance results in unsafe buildings. A mandatory requirement for inspection and maintenance of essential services is critical to improved outcomes for building users.

Another adverse outcome raised was not with performance-based regulation per se but, rather, about the way it was administered. It was noted that performance-based solutions were underutilised due to a perceived bias against performance-based solutions by some 'old school council and fire officers' unwilling or unable to recognise 'innovative and new technology'. Comments such as the following were typical of a number of respondents:

Some local government authorities accept deemed-to-satisfy building solutions without question but make it very difficult to get an alternative performance solution accepted. Reluctance of some local government authorities to accept alternative performance solutions has resulted in some clients refusing to use the alternative solution option.

During telephone interviews, around one-third of respondents were asked an additional question relating to the increased consistency in building regulation across jurisdictions (State and Territories) brought about by the BCA. A majority thought this consistency had been beneficial to the industry — particularly due to the substantial improvements in mutual understanding of BCA and design issues when dealing with interstate builders and developers. Some respondents commented, however, that there remain a number of State/Territory variations present in the BCA that should be standardised and others called for greater national consistency in State/Territory administrative requirements and regulations. However, for the majority of respondents, these were not the most important issues as their work was limited to one jurisdiction.

Private certification

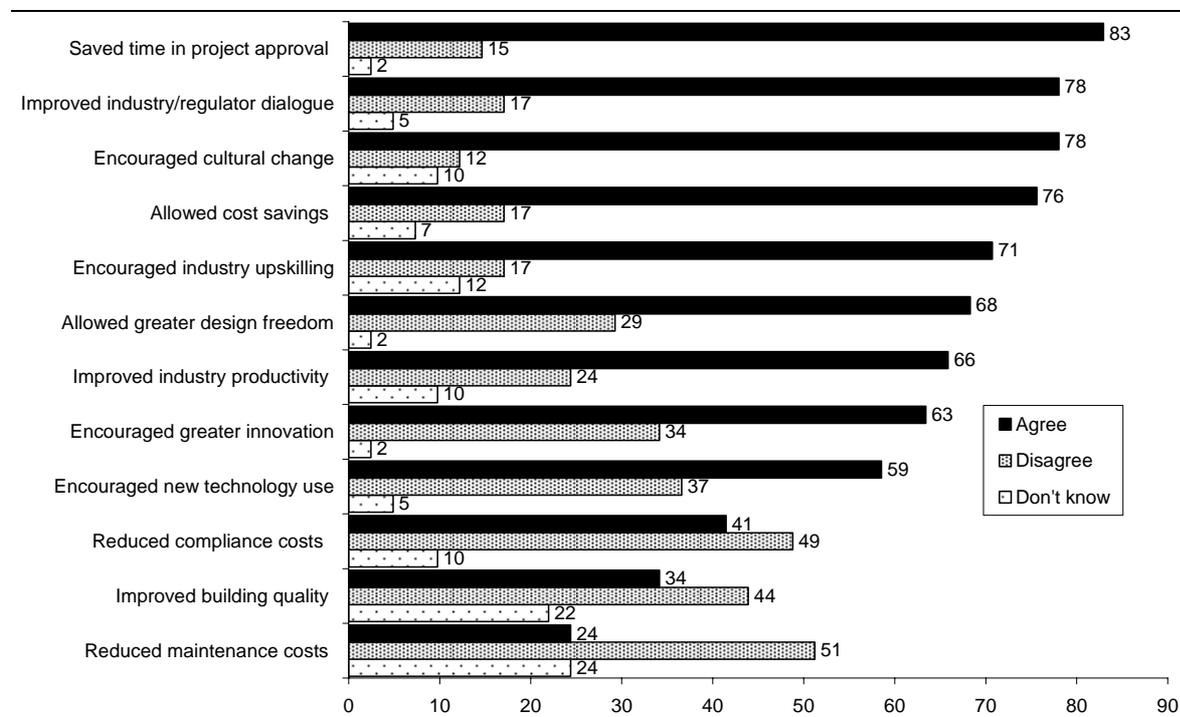
The questions regarding private certification were structured in the same manner as performance-based regulation, with respondents asked whether they agreed or disagreed with the same 12 statements about the impacts of the introduction of private certification on various aspects of industry performance. There were some similarities in the responses to this group of questions, particularly the identification of building quality and maintenance costs as potential areas of concern (figure F.4).

Time saved in gaining project approval was the statement that garnered the greatest share of agreement, with over 80 per cent agreeing with this proposition — more than half of them strongly agreeing (figure F.4 and table F.3). This was reflected in the follow-up question where 40 per cent of respondents nominated this factor as being the greatest benefit to the industry (figure F.5). This was more than double the corresponding number for performance-based regulation (figure F.3).

As would be expected, another key difference was the importance of the introduction of private certification in improving dialogue between industry and the regulator, with almost four-fifths of respondents in agreement with the statement and one-fifth nominating it as the most important benefit stemming from private certification. Similarly, cultural change was also rated more highly (equal second most supported statement versus sixth for performance-based regulation) — with one surveyor noting that the ‘cultural change brought about by the private certification process should not be undervalued’.

Despite being somewhat less positive in their responses to the group of statements about private certification, council surveyors exhibited a broadly similar response pattern to that of private surveyors (see figure F.9).

Figure F.4 Respondents' views on the impacts of the introduction of private certification on industry performance^a
per cent



^a Categories are sorted in descending order by level of agreement with each statement.

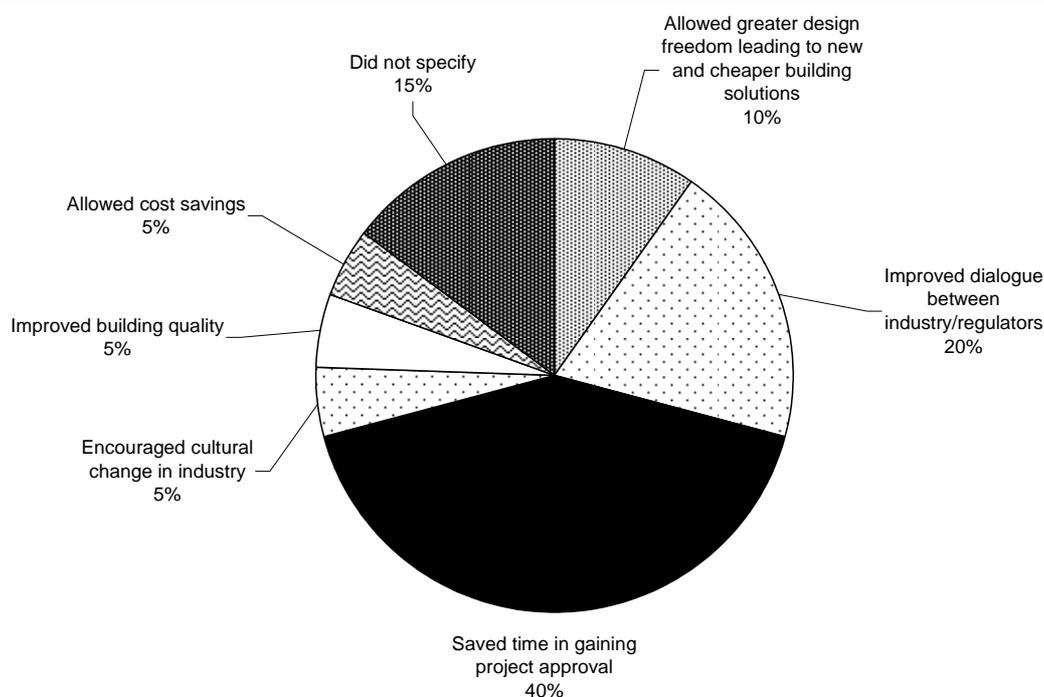
Data source: PC Building Survey 2004.

Table F.3 Impacts of private certification
per cent

	Strongly agree	Agree	Disagree	Strongly Disagree	Don't know
Saved time in gaining project approval	56	27	5	10	2
Improved dialogue between industry/regulators	34	44	15	2	5
Encouraged cultural change in industry	37	41	12	0	10
Allowed cost savings	24	51	15	2	7
Encouraged parts of the industry to upskill	27	44	17	0	12
Allowed greater design freedom leading to new and cheaper building solutions	24	44	22	7	2
Improved industry productivity	22	44	17	7	10
Encouraged greater innovation in the planning and building stages	24	39	24	10	2
Encouraged the use of new technology	22	37	34	2	5
Reduced regulatory compliance costs	24	17	32	17	10
Improved building quality	17	17	24	20	22
Reduced building maintenance costs	12	12	41	10	24

Source: PC Building Survey 2004.

Figure F.5 **Factors rated most significant benefits stemming from private certification**
per cent



Data source: PC Building Survey 2004.

Scrutiny of building plans

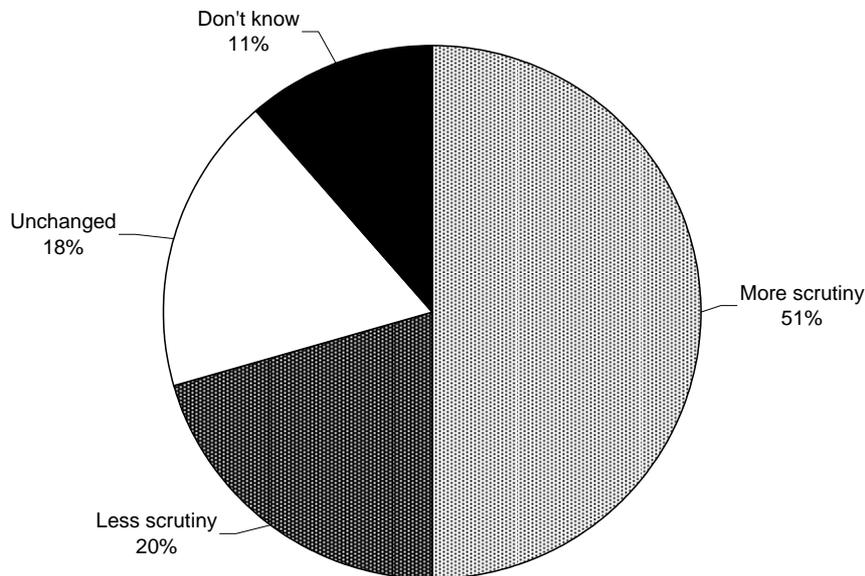
Respondents were also asked whether private certification had resulted in more or less scrutiny of building plans and whether there were likely to be more or fewer building faults. One-half of all respondents thought scrutiny had increased (figure F.6). Some argued that this was because of greater professionalism on the part of private certifiers, in part due to accreditation programs, whereas ‘councils can appoint anyone they see fit to approve any size building’. Another reason commonly stated for increased scrutiny was due to high insurance liabilities and accountability. One surveyor noted:

The level of scrutiny has increased enormously due simply to the fact that individuals are personally accountable for their actions. No longer can they hide behind the skirt [s] of Local Government.

Similarly, another noted:

There is more scrutiny at the higher level of accredited certifiers (level 1) because certifiers are more litigiously aware of consequences of mistakes than are council certifiers who can rely on the council to accept the consequences.

Figure F.6 Impact of the advent of private certification on degree of scrutiny of building plans
per cent



Data source: PC Building Survey 2004.

Another one-fifth of respondents thought there was less scrutiny due to various factors. One problem noted was how difficult it was for certifiers to understand the full complexities of performance-based solutions. In addition, some respondents noted that they cannot know all that happens during construction. One argued that it:

... depends on the certifier, but there is generally less scrutiny and more faults. The problem is that no building practitioners know the regulations fully. Only building surveyors know them to varying degrees. So how can buildings possibly fully comply? The building surveyor is not a supervisor of the building construction.

Another concern, particularly in NSW, was a perception that there was highly variable quality of private certifiers, with some certifiers more focussed on 'facilitating approvals rather than regulating proposals' due to a reluctance to 'upset paying clients'. One respondent noted in this regard:

In NSW there was initially less scrutiny, but now there is a turn around and the certifiers are trying to do the right thing due to strong government intervention. For some it is too late and they will lose their right to practise not to mention their reputations. However, this may serve as a warning to future generations of certifiers.

A further 18 per cent of respondents argued that levels of scrutiny and building faults were unrelated to the status of the certifier or that there was no evidence either way. For example:

From experience, whether or not plans are scrutinized by private certifiers or government bodies has no bearing on the degree of building faults. All qualified building practitioners would be expected to perform duties and responsibilities appropriate to their discipline and to a respective professional standard.

Adverse outcomes

Respondents were invited to discuss any adverse outcomes associated with the introduction of private certification. Overall, almost three-quarters of respondents identified some adverse outcomes. The most commonly cited problem — by both private and council certifiers — was the difficulty of ensuring private certifiers maintained acceptable quality standards. One respondent argued that, in NSW, private certifiers were left unsupervised and with no controls for too long and that:

... with the advent of private certification, the developer chooses who assesses his work and performance based solutions. This has in my view resulted in 3rd world fire safety standards, the impacts of which will not be known for 10 years as we try to unravel the mess. Developers will naturally gravitate to the practitioner that can save them the most money.

Comments were also made about certifier standards in other States/Territories, with one respondent noting:

I do not believe the current system in SA adequately assesses the competencies and skills of the practitioners nor does it provide for adequate ethical review. However this is also an issue for local government practitioners as well.

A related issue raised by some private and council surveyors was the potential incentive problems that arise under private certification — or as one private surveyor put it, the problems that arise when ‘the fox is in charge of the hen house’. As one council surveyor noted:

Private certification has the potential to bring building standards down to unacceptable levels and the industry ‘shops’ around not only for the lowest price but the certifier who will do as the industry wants and not what regulations require.

Another surveyor noted that:

The industry perceives the building (private) certifier as a “subbie” consultant and does not necessarily respect the regulatory function or obligations of the certifier.

A number of respondents also noted problems with local governments due to a ‘them and us mentality’ leading to adverse outcomes, such as extensive delays in approving planning applications and providing vital information to private certifiers. One surveyor noted:

The hostility and obstructionist behaviour shown by local government towards the private sector has been appalling. Any system that allows your opposition to form part of your judge and jury will always be doomed to failure. In NSW, local government officials spend more time checking up on the private sector than using the free time created to reduce development application determination times.

Another private surveyor was concerned about delays in approval for even minor alterations to plans:

A major issue is the necessity of having to seek an additional approval from councils for every alteration to a plan no matter how minor that change — new plans submissions reports and delays all add to the costs — plus the willingness of councils to hand out \$600 fines for even minor variations from the approved plans.

Another area of concern related to the increasing complexity of building regulation and the difficulties for certifiers in keeping up. One respondent argued that this problem was driving certifiers out of the industry. Another noted that private certification had ‘added another tier of regulation’ for example, the Queensland Building Services Authority now has to regulate certifiers. Similarly, another respondent argued that there had been adverse outcomes ‘not so much with private certification, but with the bureaucracy associated with the NSW scheme’ — with an estimated 200 per cent increase in consultancy/regulatory fees for small projects such as pools, sheds and dwelling additions.

As expected, council surveyors were generally more critical of private certification than private certifiers, with around 60 per cent of the view that scrutiny of plans had decreased following the advent of private certification. Their criticisms of regulatory reforms covered a similar range of issues as did private certifiers. Council responses to the questionnaire are discussed further below.

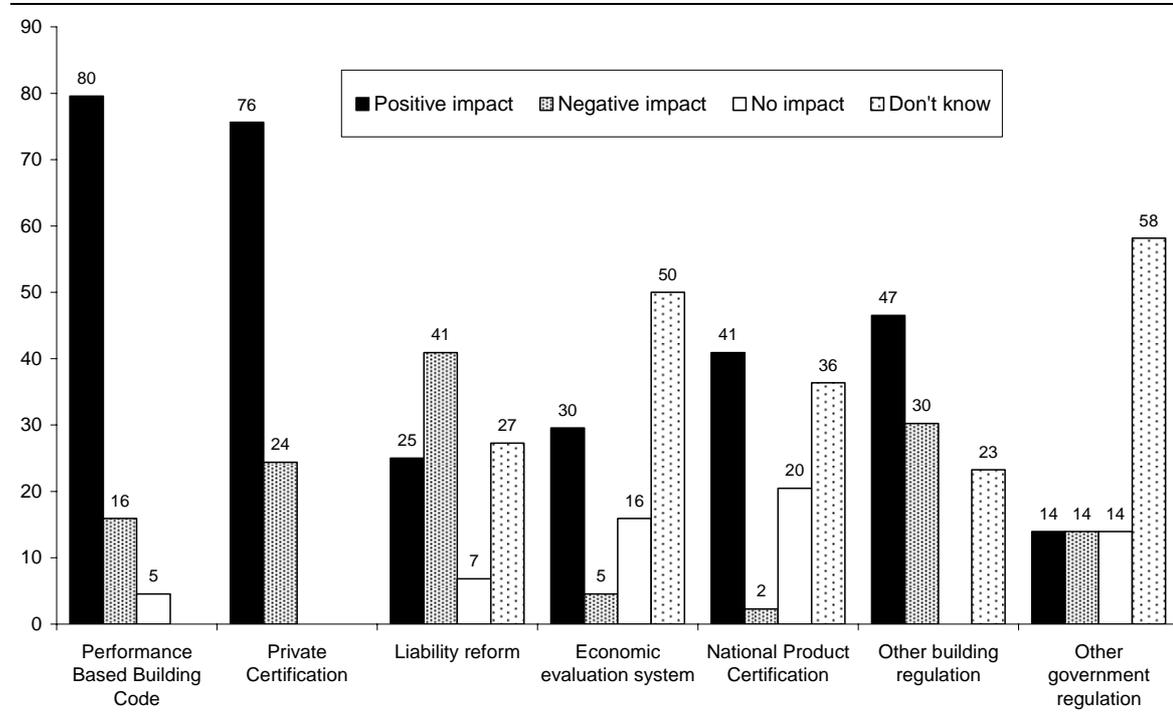
Overall impacts of reforms

Respondents were asked to rate whether, on balance, the changes to building regulation had been beneficial or harmful to the overall performance of the building industry. Respondents were advised that ‘performance’ was taken to encompass a broad range of indicators, including productivity, innovativeness, quality and efficiency.

The results indicate that, overall, the introduction of performance-based regulation was seen as having a positive impact on industry performance, with a positive rating of 80 per cent (figure F.7). Just under half of those who saw the introduction of performance-based regulation as positive rated it as having a major positive impact (table F.4).

Figure F.7 Respondents' views on the impacts of government regulation on industry performance

per cent



Data source: PC Building Survey 2004.

In the case of private certification, three-quarters of respondents saw its introduction as having a positive impact on overall industry performance (figure F.7). Caution should be exercised in interpreting the aggregate result. Closer inspection reveals that responses to this question differed markedly depending on affiliation. Almost 90 per cent of private surveyors rated the introduction of private certification as having a positive impact on industry performance. In contrast, a majority (60 per cent) of council surveyors were of the view that the introduction of private certification had negatively impacted on industry performance (figure F.10).

As noted earlier, the fact that 75 per cent of survey respondents were private certifiers meant that the views of private certifiers dominate the overall results. Hence, if the relative proportion of council/private respondents was reversed it is likely that the aggregate result would be either divided or a majority of the view that private certification had worsened overall industry performance. These results are not unexpected given the differing experiences, pressures and incentives facing private and council surveyors and highlight the limitations of this question in determining the overall merits of private certification. However, responses to other questions in the survey, as well as comments provided in the open-ended questions, indicate that individuals' survey responses were not solely dictated by their affiliation. Most individuals from both groups acknowledged that there had been

advantages and disadvantages associated with the introduction of private certification (such as those reported in figure F.4).

Table F.4 Impacts of building regulation on building industry performance
per cent

	<i>Major positive</i>	<i>Minor positive</i>	<i>No impact</i>	<i>Minor negative</i>	<i>Major negative</i>	<i>Don't know</i>
Performance-based Building Code	39	41	5	11	5	0
Private Certification	51	24	0	12	12	0
Liability reform	14	11	7	18	23	27
Economic evaluation system	7	23	16	2	2	50
National Product Certification	7	34	20	0	2	36
Other building regulation	26	21	0	16	14	23
Other government regulation	0	14	14	5	9	58

Source: PC Building Survey 2004.

There was no clear majority of opinion among surveyors (either private or council) for any of the other reforms — with a majority of respondents rating National Product Certification and Economic Evaluation System as either ‘don’t know’ or ‘no impact’. Similarly, most respondents did not express views about the impacts of other government regulations (not specific to the building industry) (figure F.7).

Of the reforms listed, liability reform received the most nominations by respondents as having a negative impact (41 per cent), with more than half of these stating that they had a major negative impact on industry performance. One surveyor was concerned that:

Building certifiers are leaving the industry at an alarming rate due to the costs of insurance, the constant changes, the transferring of legal liability to certifiers who are not the ones gaining large monetary gains (as the builders are). Most believe that the certification cost will increase greatly as many are opting out of the industry.

Some respondents argued that, as a building surveyor cannot know whether a building complies because they do not supervise construction, this poses liability-related problems. As one respondent noted:

The stupid statement practitioners are required to make — ie “Fully complies with the regulations” or the like — should be banned. No lawyer would EVER sign such a statement or recommend anyone sign it.

Results for ‘other building regulations’ were mixed, in part reflecting the category’s ‘catch all’ nature. For example, some respondents were concerned about the potential impact of energy efficiency and access requirements for people with disabilities raising the costs of construction and, hence, were rated as negatively impacting on industry performance. For example, one respondent stated:

The proposed changes to make the BCA a deemed-to-comply document in terms of the DDA will effectively result in reverse discrimination against non-disabled persons. The cost to the community will be outrageous!

Costs

Respondents were asked to provide estimates of the likely impacts of the regulatory changes on building costs. Overall, 41 per cent of respondents thought costs had risen, or were likely to rise, primarily due to energy efficiency and access requirements for people with disabilities. A further 34 per cent of respondents thought the net impact would be a decline in costs, due primarily to performance-based solutions. The remaining 25 per cent of respondents were either unsure or thought the impacts were mixed, with some costs rising and some falling.

The overwhelming majority of respondents were not prepared to estimate likely cost impacts in percentage terms for the industry as a whole, however a number of illustrative examples were provided. Some of these are listed in box F.1.

Quality

Respondents were asked about the impact of the regulatory changes on aspects of building quality including numbers of building faults, building safety, amenity and environmental performance. Responses were mixed, depending on the aspects of building quality that were of most concern to each respondent.

Just under 40 per cent of respondents commented that overall building quality had been improved, primarily due to fewer building faults and greater scrutiny.

A further 30 per cent of respondents said building quality had worsened. Some noted the fire safety issues raised earlier, while others were of the view that greater regulatory requirements in some areas will lead to cost cutting and, hence, indirectly result in quality reductions:

There is likely to be a decrease in building quality as increased costs in some areas (particularly with energy efficiency and disabled access requirements), combined with pressure to keep cost down lead to quality suffering elsewhere. We are over regulated.

Box F.1 Cost impacts of regulatory change

Comments received by survey respondents on the cost impacts of regulatory change included:

'This is a difficult question to answer and it is not appropriate for me to guess the degree of cost impact however I feel there has been a positive impact on commercial development due to more cost effective design utilising fire engineering design principles and alternative solutions. Unfortunately I believe there has been a negative impact on the domestic market with increased costs due to more stringent wall framing requirements, energy efficiency and more stringent bushfire provisions.'

'On a 4000 square metre warehouse the estimated cost to install sprinklers would be around \$200,000. With an alternative performance-based solution that would be reduced by approximately 50 per cent.'

'Probably a reduction in costs, but the lawyers are moving in like a pack of sharks. In many cases they know, as do many of us, that taking systems out of buildings that are there to protect the community is fertile ground to grow a legal practice. I heard of a project the other day — the private certifier approved the removal of the sprinkler system. The council obtained an expert 3rd opinion which stated the matter could not be justified in the courts. On the steps of the Land and Environment Court the developer agreed to vacate the building. The consultant made \$6,000 for his advice and no doubt the lawyers on the developers side will make much more. Performance based regulation is the way to go but there must be controls such as government supervised building regulation variation committees!'

'Increased costs due to no local government funding. Fully self funded business will obviously charge and make a profit — for example, council permits in 1994 were \$300 whereas private permits in 2004 are around \$1200.'

'In the regulatory/approval/inspection process the fees for projects such as a dwelling have increased hugely (for NSW). In 2000 a certificate of compliance for a dwelling would have cost \$400 in approval fees — now \$2500 is more realistic.'

'Decreased final construction costs only — but increased design costs. There is no current method of estimating cost comparisons unless each individual project is assessed by a quantity surveyor to estimate prescriptive compliance costs against an 'alternative design' costing.'

Source: PC Building Survey 2004.

The remaining respondents were either unsure or were of the view that quality was unaffected, or likely to be unaffected, by the regulatory changes listed in the question. As with earlier questions, responses varied depending on the particular elements of building quality considered. Some argued that the quality of construction (ie the number of building faults) was unrelated to the regulatory process. For example:

The regulatory process and the quality of construction are two separate issues. Private certifiers or for that matter council certifiers do not have the time or the skills to control quality of building issues. The BCA does not regulate quality, nor should it.

Another respondent commented that these regulatory changes would have:

... no great impact on building quality, however there are more and more controls that will affect builders — eg, OH&S and environmental requirements will have a major impact on building costs or whether any one would want to become a builder!

Suggestions for change

Respondents were also invited to nominate the single largest problem with existing building regulation — in other words, ‘if you could make one change to the overall regulatory environment what would it be?’ The most commonly identified area where change was sought was related to planning approval by councils, with concerns about the extent of time lost through council assessment processes, development application conditions and through ‘vexatious complaints’. Another concern was with liability (discussed earlier). A selection of suggestions provided by respondents is set out in box F.2.

Council surveyors’ responses

In this section, the responses of the council building surveyors have been separately identified to highlight the differences (and similarities) in viewpoint of this group relative to the private certifiers. The key figures presented earlier for all respondents (F.2, F.4 and F.7) have been reconstructed to allow ready comparison.

The results for performance-based regulation indicate that council surveyors exhibited a broadly similar response pattern to private certifiers in terms of the relative ranking of the benefits (figure F.8) as well as their overall view about its impact on industry performance (figure F.10).

Box F.2 Suggestions for future reforms

Suggestions received by survey respondents for future reforms included the following:

‘State governments should not approve erroneous and ambiguous town plans. For example, town plans should not specify personal taste items, eg colours, style, finishes, aspect of construction etc.’

‘Reform the planning system by bringing in more accountability to the local authorities undertaking these functions. Introduce private certification of planning processes by either dramatically increasing the complying uses or by private competition.’

‘Access to “property information” from municipal councils regarding: flooding, stormwater, termite areas, bushfires, planning controls and the like should be available on the internet 24 hours a day for every council in Victoria. Every council has a different application form, different charges and different turnaround times.’

(Continued next page)

Box F.2 (continued)

‘Remove private certification and place the approval process back with local governments to produce a level playing field and consistent “end” quality buildings.’

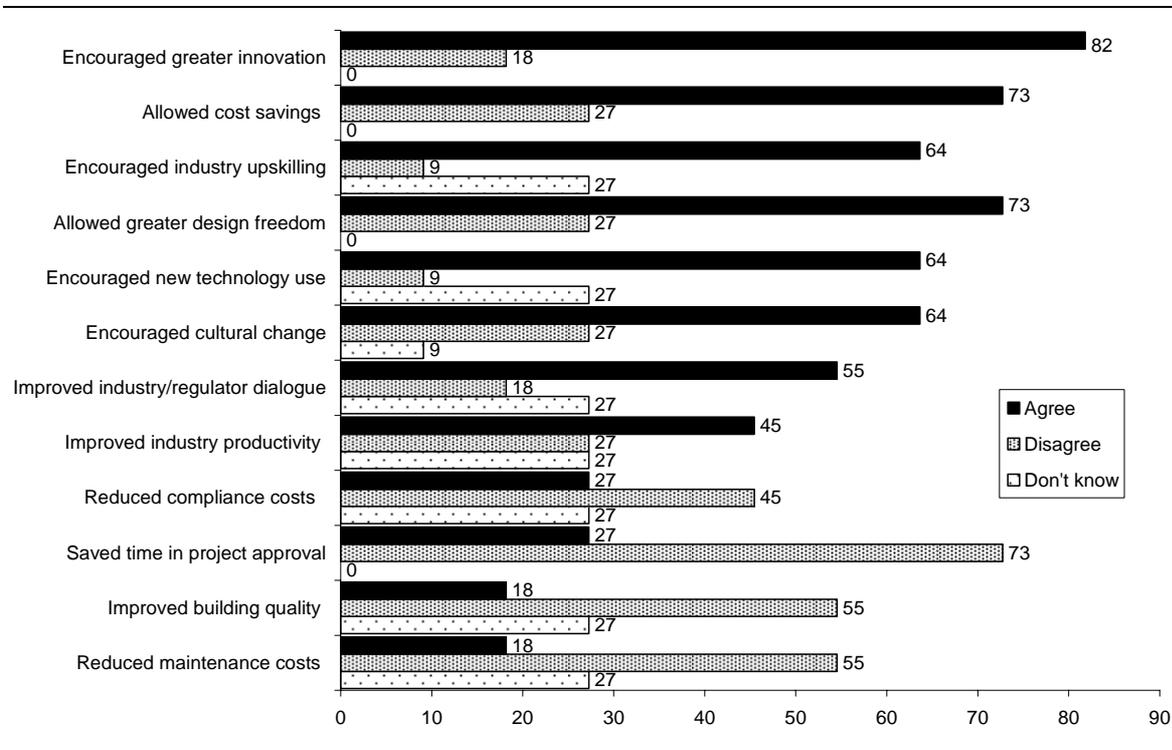
‘A major factor inhibiting efficiency in my view is the enormous bureaucratic processes that have to be dealt with to gain approval. For example, all the work on plan preparation that owners/architects may have to contend with, such as energy efficiency reports, sewerage management report, bushfire reports, koala habitat reports, aborist reports — all for a single dwelling in a rural area.’

‘Private certifiers should be able to seek State government assistance with their enforcement role. Similar to that of Victorian BCC model. Currently private certifiers in Qld are required to issue enforcement notices and take enforcement action on their clients without necessary funding or expertise.’

‘I would encourage the NSW Building Practitioners board to publish regularly the matters of complaints made about certifiers and how the complaints/issues were resolved. These would be common problems we can all learn from.’

Source: PC Building Survey 2004.

Figure F.8 Council surveyors’ views on the impacts of the introduction of performance-based regulation on industry performance
per cent

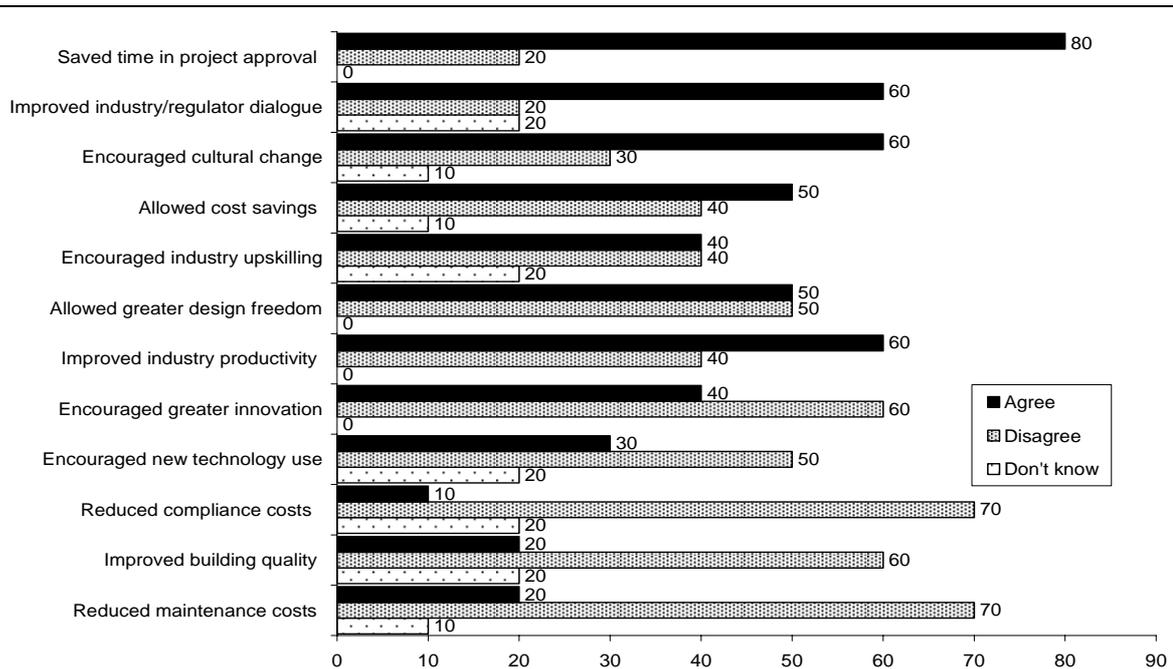


Data source: PC Building Survey 2004.

As highlighted earlier, the major point of divergence between council and private surveyors was, not surprisingly, attitudes to private certification. Overall, the most notable difference was that only 40 per cent of council surveyors were of the view that the introduction of private certification had improved industry performance (figure F.10), compared with almost 90 per cent for private certifiers. As discussed earlier, these results indicate that this question is of limited usefulness on its own, with results heavily influenced by respondent affiliation.

In addition to being considerably less positive about the benefits of private certification, council surveyors registered lower levels of agreement with all twelve statements in question 2 (figure F.9) than private surveyors (figure F.4). Council surveyors were considerably less positive about the impacts of private certification on promoting innovation, encouraging the use of new technology, allowing greater design freedom, encouraging parts of the industry to upskill and allowing cost savings.

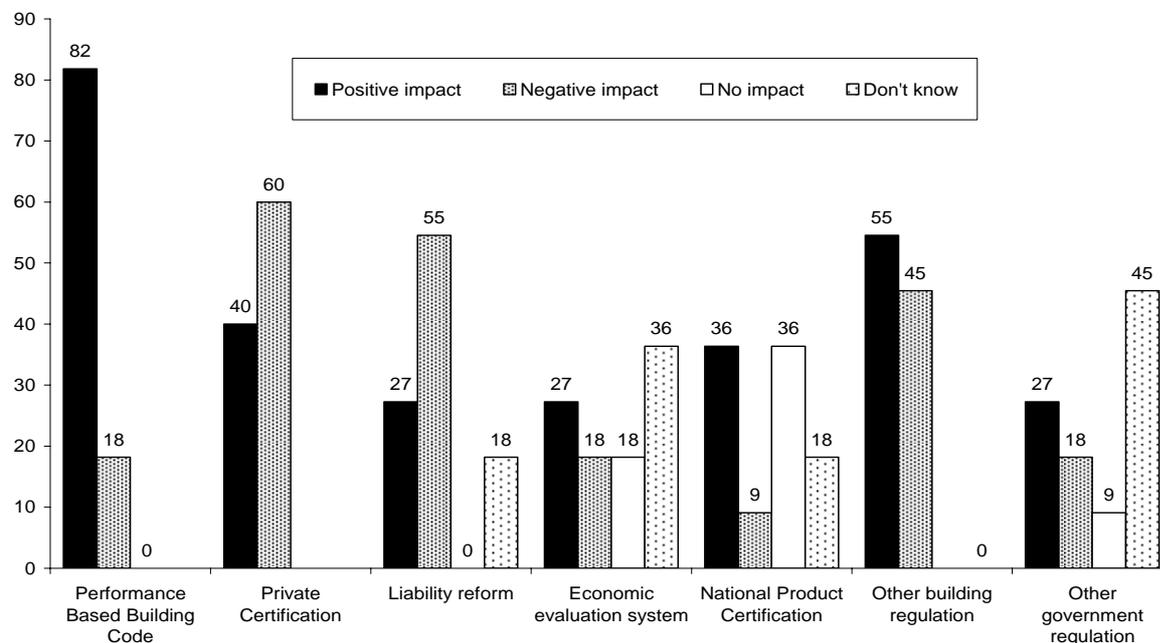
Figure F.9 Council surveyors' views on the impacts of the introduction of private certification on industry performance
per cent



Data source: PC Building Survey 2004.

Figure F.10 Council surveyors' views on the impacts of government regulation on industry performance

per cent



Data source: PC Building Survey 2004.

Nevertheless, there were also some similarities with the responses of private surveyors, including:

- majority agreement with statements about time saved, improved dialogue; cultural change and productivity; and
- substantial disagreement with statements about maintenance costs, regulatory compliance costs and building quality.

As with the private surveyors, council surveyors not only rated ‘time saved’ as the statement most agreed with — 80 per cent of council surveyors compared with 83 per cent overall — but also the most beneficial factor stemming from private certification. Overall, around two-thirds of council surveyors nominated time saved as being the most beneficial factor associated with the introduction of private certification.

Productivity and innovation

Surveyors were also asked their views on more general sources of productivity growth and the factors driving innovation across the building industry. Overall, this was the least well answered group of questions, with many respondents reluctant to make judgments about broader trends of industry performance (such as on-site

drivers of construction costs), which many saw as beyond the scope of their expertise and experience.

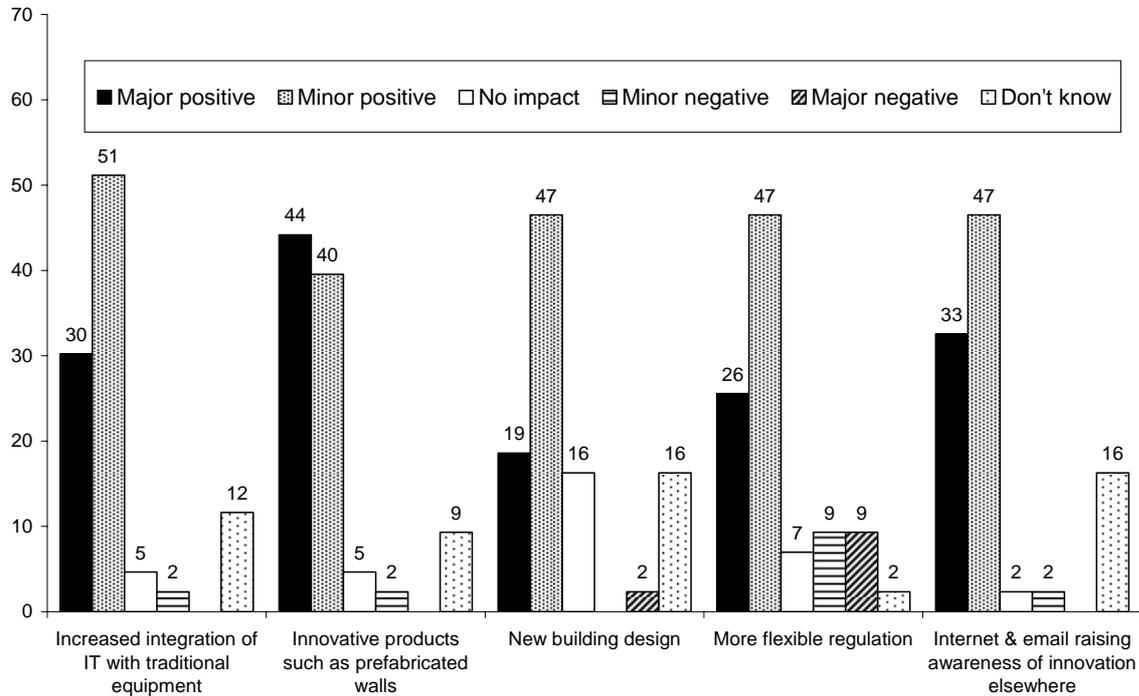
Hence, almost half of respondents were not prepared to comment on what had been the major drivers of productivity growth.

Of those who commented, the majority cited some form of technological change, either through increased usage or integration of information technology; improved equipment and machinery; better intermediate and material inputs; or improved labour practices. A number of respondents highlighted the role that better management, workforce flexibility and more stability in the work environment due to a more stable industrial relations climate had played in improving industry productivity.

Respondents were also asked about the drivers of innovation in the industry. Although more flexible regulation and building design were rated as positive factors by around 70 per cent of respondents, the strongest support was for innovative products (such as prefabricated walls and clip together plumbing systems) and increased integration of information technology with traditional equipment (figure F.11).

The option of nominating an 'other' category was offered to respondents to try to capture additional drivers of innovation not specified in the questionnaire. However, only one respondent selected this category (private certification was nominated). This could suggest the factors identified were the major drivers of innovation for the industry or (more likely) that respondents were not comfortable identifying drivers of innovation for the entire industry given the diversity of activities within the industry (such as architecture and construction).

Figure F.11 Drivers of innovation
per cent



Data source: PC Building Survey 2004.

Table F.5 Drivers of innovation
per cent

	Major positive	Minor positive	No impact	Minor negative	Major negative	Don't know
Increased integration of IT with traditional equipment	30	51	5	2	0	12
Innovative products such as prefabricated walls	44	40	5	2	0	9
New building design	19	47	16	0	2	16
More flexible regulation	26	47	7	9	9	2
Internet & email raising awareness of innovation elsewhere	33	47	2	2	0	16

Source: PC Building Survey 2004.

F.4 The questionnaire

The following pages contain the questionnaire form that was sent to participants.

Reform of building regulation: Survey of expert groups

Note to respondents: The purpose of this questionnaire is to gather your views on the factors that have influenced productivity and innovation within Australia's building construction industry, in particular, the residential and non-residential building sectors. **The non-building construction/engineering construction sector is not a focus of this survey.** If you are unable to answer any questions please write 'don't know' and move on to the next question. All responses will be treated as 'in confidence'.

ABOUT YOU

What types of building projects have you worked on in the past 2 years? [Please mark all relevant boxes.]

- | | | | | | |
|---------------------------|--------------------------|--|--------------------------|--------------------|--------------------------|
| 1. Single residence | <input type="checkbox"/> | 2. Multiple residence | <input type="checkbox"/> | 3. Office building | <input type="checkbox"/> |
| 4. Shops/shopping centres | <input type="checkbox"/> | 5. Institutions (eg schools/hospitals) | <input type="checkbox"/> | 6. Other (specify) | <input type="checkbox"/> |
| | | | | | |

Please mark which type of organisation you work in

- | | | | | | |
|---------------------------|--------------------------|------------------|--------------------------|------------|--------------------------|
| 1. Small private | <input type="checkbox"/> | 2. Large private | <input type="checkbox"/> | 3. Council | <input type="checkbox"/> |
| 4. Other (please specify) | <input type="checkbox"/> | | | | |
| | | | | | |

Question 1 Please indicate whether you agree or disagree with the following statements. (mark relevant box)

Performance-based regulation (introduced via the Performance-based Building Code of 1996) has directly or indirectly contributed to the following outcomes for the building industry ...

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know
a. Allowed greater design freedom leading to new and cheaper building solutions	<input type="checkbox"/>				
b. Encouraged greater innovation in the planning and building stages	<input type="checkbox"/>				
c. Improved dialogue between industry/regulators	<input type="checkbox"/>				
d. Saved time in gaining project approval	<input type="checkbox"/>				
e. Encouraged cultural change in industry	<input type="checkbox"/>				
f. Reduced regulatory compliance costs	<input type="checkbox"/>				
g. Encouraged the use of new technology	<input type="checkbox"/>				
h. Encouraged parts of the industry to upskill	<input type="checkbox"/>				
i. Improved building quality	<input type="checkbox"/>				
j. Allowed cost savings	<input type="checkbox"/>				
k. Improved industry productivity	<input type="checkbox"/>				
l. Reduced building maintenance costs	<input type="checkbox"/>				

IN CONFIDENCE

Question 1 (a): If you agreed with any of the above statements, which factors do you think were of greatest benefit to the building industry? [Note: if there were other benefits not mentioned above please list them.]

Question 1 (b): Have there been any adverse outcomes associated with performance-based regulation? What are they?

Question 1 (c): How widespread is usage of performance-based regulation? Approximately what percentage of building projects currently make use of performance-based regulation?

Question 1 (d): What parts of the industry use performance-based regulation (ie, who uses it amongst practitioners) and for what purposes (ie, for what types of buildings)?

IN CONFIDENCE

Question 2 Please indicate whether you agree or disagree with the following statements.
(mark relevant box)

Private certification has directly or indirectly contributed to the following outcomes for the building industry...

	Strongly agree	Agree	Disagree	Strongly disagree	Don't know
a. Allowed greater design freedom leading to new and cheaper building solutions	<input type="checkbox"/>				
b. Encouraged greater innovation in the planning and building stages	<input type="checkbox"/>				
c. Improved dialogue between industry/regulators	<input type="checkbox"/>				
d. Saved time in gaining project approval	<input type="checkbox"/>				
e. Encouraged cultural change in industry	<input type="checkbox"/>				
f. Reduced regulatory compliance costs	<input type="checkbox"/>				
g. Encouraged the use of new technology	<input type="checkbox"/>				
h. Encouraged parts of the industry to upskill	<input type="checkbox"/>				
i. Improved building quality	<input type="checkbox"/>				
j. Allowed cost savings	<input type="checkbox"/>				
k. Improved industry productivity	<input type="checkbox"/>				
l. Reduced building maintenance costs	<input type="checkbox"/>				

Question 2 (a): If you agreed with any of the above statements, which factors do you think were of greatest benefit to the building industry? [Please add any additional benefits not listed above.]

Question 2 (b): Have there been any adverse outcomes associated with private certification? What are they?

IN CONFIDENCE

Question 2 (c): Do you think that the introduction of private certification has resulted in more or less scrutiny of building plans (ie, are there likely to be more or fewer building faults now than under the previous system)? Why?

Question 3: On balance, have the following regulatory changes been beneficial or harmful to the overall performance of the building industry? [Note: 'performance' is taken to encompass a broad range of indicators including productivity, innovativeness, quality and efficiency.]

Please provide a rating from 1 to 6, in the relevant box, where:
1 = Major negative impact 2 = Minor negative impact 3 = No impact
4 = Minor positive impact 5 = Major positive impact 6 = Don't know

	Rating
a. Performance-based Building Code 1996	<input type="checkbox"/>
b. Private Certification	<input type="checkbox"/>
c. Liability Reform	<input type="checkbox"/>
d. Economic Evaluation System of Building Regulatory Proposals	<input type="checkbox"/>
e. National Product Certification	<input type="checkbox"/>
f. Other building related regulations (eg energy efficiency, disabled access/fire safety etc — please specify below)	<input type="checkbox"/>
g. Government regulation not specific to the building industry (eg industrial relations reforms such as the Workplace Relations Act 1996) (please specify)	<input type="checkbox"/>

Question 3 (a): Taken as a group, are the above regulatory changes likely to have increased or decreased overall building quality (eg — are there likely to have been more/fewer building faults, improved/worsened safety, environmental/OH&S performance etc)?

IN CONFIDENCE

Question 3 (b): Taken as a group, are the above changes to building regulation likely to have increased or decreased (or left unchanged) overall building costs. [Note: If feasible, please also provide a 'best guess' estimate of how much costs are likely to have been affected.]

Question 3 (c): Do you think any of the changes to building regulations discussed above have either directly or indirectly resulted in adverse outcomes for building users or for the economy? Please briefly discuss.

Question 4: Over the past decade, labour productivity (inflation adjusted industry value-added divided by total hours worked) for the building industry as a whole has increased at around 1.5 to 2 per cent a year. **What do you think have been the important factors that have affected the productivity of the building industry over the past decade?**

Question 4 (a): What has been the role of the following factors in promoting innovation in the Australian building industry?

Please provide a rating from 1 to 6, in the relevant box, where:
1 = Major negative impact 2 = Minor negative impact 3 = No impact
4 = Minor positive impact 5 = Major positive impact 6 = Don't know

- | | Rating |
|---|----------------------|
| a. Increased integration of IT with traditional equipment | <input type="text"/> |
| b. Innovative products such as prefabricated walls | <input type="text"/> |
| c. New building design | <input type="text"/> |
| d. More flexible regulation | <input type="text"/> |
| e. The internet and email (eg leading to increased awareness of innovations in other jurisdictions) | <input type="text"/> |
| f. Others (describe)
..... | <input type="text"/> |

IN CONFIDENCE

Question 5: What is the single largest problem with existing building regulation (ie, if you could make one change to the overall regulatory environment what would it be)?

Question 6: Do you have any other comments you wish to make regarding reforms to the building industry regulatory framework (eg has the reform process been handled well, have the changes been a positive influence on the health of the industry, and problems/priorities for future reform etc)?

Thank you for completing this questionnaire.

Approximate time taken

I would/would not like to receive a free copy of the Commission's final report.

IN CONFIDENCE

G State and Territory regulatory systems for building

The Commission sought information from the State and Territory Governments as to the administration of their building regulatory systems. The responses received were collated in tables, as follows:

- Core regulatory activities:
 - Planning approval (table G.1)
 - Approval to commence building (table G.2)
 - Inspections of building work (table G.3)
 - Enforcement of building notices/orders etc (table G.4)
 - Occupancy approval (table G.5)
 - Essential services maintenance (table G.6)
- Supporting regulatory activities:
 - Practitioner licensing (table G.7)
 - Accreditation and audit of certifiers (table G.8)
 - Insurance (home building warranty, professional indemnity etc) (table G.9)
 - Dispute resolution (table G.10).

South Australia and Queensland operate integrated development approval processes that consolidate planning and building consents.

Due to the way this appendix is collated, some functions may appear separate when, in fact, they are conducted as one process. For example, the Building Advisory Services Branch in the Northern Territory keeps a running record throughout the building process, which appears as a separate entry in a number of tables.

Table G.1 **Planning approval**

<i>Key Institutions</i>	<i>Responsibilities</i>	<i>Processes</i>	<i>Key documents</i>
New South Wales Department of Infrastructure, Planning and Natural Resources	State significant development, development where Minister is the consent authority.	Merit assessment of applications based on heads of consideration in the <i>Environmental Planning and Assessment Act 1979</i> and the Environmental Planning and Assessment Regulation 2000, and provisions in environmental planning instruments.	Development consent. <i>Environmental Planning and Assessment Act 1979</i> , the Environmental Planning and Assessment Regulation 2000, State Environmental Planning Policies and regional environmental plans.
Local councils	Local development (including complying development). NB: A complying development certificate for building work is both a planning approval and a building approval.	Merit assessment of applications for local development (except complying development). Applications for complying development assessed against predetermined standards in environmental planning instruments or development control plans.	Development consent or complying development certificate. <i>Environmental Planning and Assessment Act 1979</i> , Environmental Planning and Assessment Regulation 2000, environmental planning instruments (State environmental planning policies, regional environmental plans, local environmental plans) and development control plans.
Private accredited certifiers	Complying development. NB: A complying development certificate for building work is both a planning approval and a building approval.	Applications for complying development certificates assessed against predetermined standards in environmental planning instruments or development control plans.	Complying development certificate. <i>Environmental Planning and Assessment Act 1979</i> , Environmental Planning and Assessment Regulation 2000, environmental planning instruments (State environmental

planning policies, regional environmental plan, local environmental plans) and development control plans.

Victoria

Local council

Determine use of land and approval of land use within its Municipality.

Applicant makes application to the council for a Planning approval.

Usually the proposal is advertised and the affected neighbours are notified and given an opportunity to object.

After set period of advertising the proposal is assessed by the Council Officers and a report is provided to council. At the council meeting the application is heard/determined.

The next court of appeal is the Victorian Civil Administration Tribunal (VCAT).

New processes are being introduced to enable some streamlining of process, however this is only to ensure all relevant information has been provided with the application.

- Planning Act and Planning Schemes formulated and administered by Local Councils.
- Res Code

Department of Planning

Develop statewide and regional land use policy within the Victorian planning system. It is also responsible for planning legislation and land development information and planning business systems.

Continued next page

Table G.1 (continued)

<i>Key Institutions</i>	<i>Responsibilities</i>	<i>Processes</i>	<i>Key documents</i>
Queensland			
Department of Local Government, Planning, Sport and Recreation	<p>Administer the Integrated Planning Act (IPA) to integrate State and local government planning and development.</p> <p>Ensure development assessment is integrated under IPA and is managed in a way that is ecologically sustainable.</p> <p>Ensure State interests are reflected in schemes.</p>	IDAS (Integrated development assessment system).	<ul style="list-style-type: none"> • <i>Integrated Planning Act 1997</i> (IPA)
Local government	Prepare and implement planning schemes and decide development applications under IDAS incorporating State and local government interests.	IDAS (Integrated development assessment system)	<ul style="list-style-type: none"> • <i>Integrated Planning Act 1997</i> • State planning policies • State legislation relevant to the development application
Building certifier	<p>Assess and decide the building work component of a development application under the IPA against the Building Act. Ensure all necessary development permits and preliminary approvals are effective for other assessable development related to the development (i.e. other local and State approvals have been issued).</p> <p>Ensure the building application is consistent with earlier approvals required by the legislation.</p>	To ensure the building application is consistent with IPA and planning schemes.	<ul style="list-style-type: none"> • <i>Integrated Planning Act 1997</i> • Local planning scheme

South Australia

Planning SA	Monitor and amend legislation governing control of development.	Single development process consolidating planning and building consents.	<ul style="list-style-type: none"> • Development Act and Regulations 1993
Local councils	<p>Assessment of development application for compliance with planning regulations.</p> <p>Granting of Building Rules consents.^a</p>	<p>Applicants submit plans to council, assessment carried out within 2 weeks if complying development and 8 weeks otherwise.</p> <p>Assessment carried out within 4 weeks or 12 weeks.</p>	<ul style="list-style-type: none"> • Development application form • Building Rules consent • Builder's certificate of indemnity insurance for construction of dwellings • Construction Industry Training Board levy form • Form 1 Schedule 16 (schedule of Essential Safety Provisions) • BRAC Forms A(1) and A(2)
Building Rules Assessment Commission (BRAC)	To provide concurrence on applications to vary the Performance Requirements of the BCA.	Building /Rules certifier must obtain concurrence from BRAC before granting a consent for work that is at variance with the Performance Requirements of the BCA.	
Private certifiers	<p>Granting of Building Rules consents^a where engaged by developer or owner.</p> <p>Assess development applications for compliance with SA Building Rules and BCA.</p>	<p>Applicants submit plans to private certifier, assessment carried out within 4 weeks or 12 weeks.</p> <p>Private certifier issues building consent, consent taken to council for purposes of issuing development approval.</p>	<ul style="list-style-type: none"> • Development application form • Building Rules consent • Builder's certificate of indemnity insurance for construction of dwellings • Construction Industry Training Board levy form • Form 1 Schedule 16 (schedule of Essential Safety Provisions)

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Table G.1 (continued)

<i>Key Institutions</i>	<i>Responsibilities</i>	<i>Processes</i>	<i>Key documents</i>
	Certification of compliance with Building Rules for Major Developments.	Applicants submit plans to private certifier for assessment, assessment carried out within 4 weeks or 12 weeks. Certification of compliance sent to Minister, Minister sends copy of approval and approved documents to council.	<ul style="list-style-type: none"> • Development application form • Certificate of Compliance with the Building Rules • Construction Industry Training Board levy form • Form 4 Schedule 16 (schedule of Essential Safety Provisions)
Development Assessment Commission (DAC)	Development authorisation for Out of Council areas and referred developments. Building Rules consents for Out of Council areas.	Applicants submit plans to council, assessment carried out within 2 weeks if complying development and 8 weeks otherwise. Applicants submit plans to DAC, assessment carried out within 4 weeks or 12 weeks.	<ul style="list-style-type: none"> • Development application form
The Governor	Development authorisation for Major Developments.	Applicants submit plans to the Minister for assessment and processing.	<ul style="list-style-type: none"> • Development application form
Western Australia			
Department of Planning and Infrastructure	Planning legislation and policy.		<ul style="list-style-type: none"> • <i>WA Planning Commission Act 1985</i> • <i>Metropolitan Region Town Planning Scheme Act 1959</i> • <i>Town Planning and Development Act 1928</i> • Current proposals to consolidate legislation are underway (Planning and Development Bill 2004)

Local councils	Assess development applications and grant planning approval.	Where required, a developer must submit an application for planning approval. May require council approval or approval may be delegated to a council officer.	<ul style="list-style-type: none"> • Development Application • Residential Design Codes (R-Codes) – prepared by WAPC and provide a comprehensive basis for the control, through local government, of residential development
Western Australian Planning Commission (WAPC)	Planning appeals.	Hears and determines appeals against refusal to issue planning approval.	
Tasmania			
Resource Planning and Development Commission	Overseeing the State's Planning System, State of the Environment reporting and assesses public land use issues and projects of State significance.	The Commission has five principle functions: <ul style="list-style-type: none"> • to assess and approve local government planning schemes and planning scheme amendments; • to assess projects of State significance; • to assess Draft State Policies; • to prepare the Tasmanian State of the Environment Report; and • to conduct inquiries into the use of public land. 	Prescribed under the following Acts: <ul style="list-style-type: none"> • <i>Land Use Planning and Approvals Act 1993</i> • <i>Public Land (Administration and Forests) Act 1991</i> • <i>State Policies and Projects Act 1993</i>
Local council	Enforcement and observance of Planning Schemes and Issuing Planning Permits.	If Council Planning Scheme requires a Planning Permit for a use or development, an owner must apply to the council for the permit before using or undertaking the development.	Planning Scheme Planning Permit

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Table G.1 (continued)

<i>Key Institutions</i>	<i>Responsibilities</i>	<i>Processes</i>	<i>Key documents</i>
Northern Territory			
Minister for Lands and Planning	<p>'Consent Authority' where a Division of the Development Consent Authority (DCA) is not established in relation to an area of land.</p> <p>Consent Authority unless otherwise delegated to DCA or other officer.</p>	Development application is assessed by Development Assessment Services (DAS) and report with recommendation and service authority comments submitted to Minister for determination.	<ul style="list-style-type: none"> • Conditional or Unconditional Development Permit • Notice of Refusal • Interim Development Control Order • Variation Permit • Certificate of Compliance
Development Consent Authority	<p>Established under the NT Planning Act.</p> <p>Members appointed by Minister for Lands and Planning.</p> <p>Minister establishes Divisions where DCA is the 'Consent Authority' and has delegation to determine development applications.</p>	Development Application or Variation to Development Application assessed by DAS and report with recommendation and service authority comments submitted to relevant Division of Development Consent Authority for determination.	<ul style="list-style-type: none"> • Conditional or Unconditional Development Permit • Variation Permit • Notice of Refusal • Certificate of Compliance
Development Assessment Services, Department of Infrastructure, Planning & Environment (DIPE)	Administrative arm which provides support to DCA.	Planners assess Development Applications against set criteria and the NT Planning Scheme and evaluate comments received from other NT Government Service Authorities (PowerWater, Department of Health and Community Services etc), prepare report with recommendation to the Development Consent Authority.	<ul style="list-style-type: none"> • Assessment Report
Lands and Mining Tribunal	Appeal Body for the purposes of the NT Planning Act established under NT Lands and Mining Tribunal Act.	An applicant has right to appeal against any determination of the DCA (i.e. refusal to issue permit, if DCA does not determine application, refusal to extend period of permit, against a condition or alteration imposed, refusal to refund or remit contribution to service authority, against variation of condition placed on permit).	<ul style="list-style-type: none"> • Determination of Appeal

Notice of Appeal must be lodged with Registrar within 28 days of date of determination.

There is no right of appeal against determinations of the Minister for Lands & Planning.

Australian Capital Territory

ACT Planning and Land Authority. (The function is not privatised).	Administration of ACT planning laws, which apply where NCA does not have jurisdiction.	Proponent applies to Authority. Authority examines documentation, and consults as required with interested Government agencies and neighbouring landowners, and makes a decision. Authority grants or refuse to grant development approval.	<ul style="list-style-type: none">• Development application forms available from Authority• Development plans• Approval documents including any conditions of approval• Consultation submissions
Other interested agencies, eg health, environment, etc	Administration of relevant laws and to consult with the Authority on development applications.	Authority circulates development plans to agencies for comment.	<ul style="list-style-type: none">• Development plans, documented advice from agencies
National Capital Authority (NCA) (the function is not privatised).	Administration of Commonwealth planning laws where they have ACT jurisdiction.	Proponent applies to NCA. NCA examines documentation, and makes a decision. NCA grants or refuses to grant development approval.	<ul style="list-style-type: none">• Development plans and approval documentation

^a All building **applications** must be assessed by people accredited as Building Surveyors, Assistant Building Surveyors or Building Surveying Technicians. Granting of **consent** must be done by registered certifier, council or someone exercising delegated authority from council.

Table G.2 Approval to commence building

<i>Key Institutions</i>	<i>Responsibilities</i>	<i>Processes</i>	<i>Key documents</i>
New South Wales			
Local councils	<p>As certifying authority, issue construction certificates and complying development certificates.</p> <p>NB: A complying development certificate for building work is both a planning approval and a building approval.</p>	<p>Assess applications for construction certificates and complying development certificates and issue a certificate if an application is approved.</p> <p>Certificates relating to Class 1b to 9 buildings, when issued, must be accompanied by a fire safety schedule prepared by the certifying authority.</p> <p>Appointment of principal certifying authority (PCA) and lodgement with Council of notice of intention to commence erection of the building, are also required.</p>	<ul style="list-style-type: none"> • Construction certificate or complying development certificate • Fire safety schedule • Building Code of Australia, <i>Environmental Planning and Assessment Act 1979</i>, Environmental Planning and Assessment Regulation 2000
Minister for Infrastructure and Planning; Minister for Natural Resources	<p>As certifying authority, issue construction certificates, (but only for building work that is State significant development)</p>	<p>Assess applications for construction certificates and issue a certificate if an application is approved.</p> <p>Certificates relating to Class 1b to 9 buildings, when issued, must be accompanied by a fire safety schedule prepared by the certifying authority.</p> <p>Appointment of principal certifying authority (PCA) and lodgement with Council of notice of intention to commence erection of the building, are also required.</p>	<ul style="list-style-type: none"> • Construction certificate • Fire safety schedule • Building Code of Australia, <i>Environmental Planning and Assessment Act 1979</i>, Environmental Planning and Assessment Regulation 2000
Private accredited certifiers	<p>As certifying authority, issue construction certificates and complying development certificates.</p> <p>NB: A complying development certificate is both a planning approval and a building approval.</p>	<p>Assess applications for construction certificates and complying development certificates and issue a certificate if an application is approved.</p> <p>Certificates relating to Class 1b to 9 buildings, when issued, must be accompanied by a fire safety schedule prepared by the certifying authority.</p> <p>Appointment of PCA and lodgement with Council of notice of intention to commence erection of the building, are also required</p>	<ul style="list-style-type: none"> • Construction certificate or complying development certificate • Fire safety schedule • Building Code of Australia, <i>Environmental Planning and Assessment Act 1979</i>, Environmental Planning and Assessment Regulation 2000

Victoria

Building Commission	Oversight of building regulations relating to inspections.		<ul style="list-style-type: none"> • <i>Building Act 1993</i>, Building Regulations 1994 • Building Code of Australia
Local councils	Where local council has been appointed to issue the building permit, the Relevant Building Surveyor has obligations to ensure that the documentation complies with the <i>Building Act 1993</i> , Building Regulations 1994, the BCA and that the permit is consistent with the relevant planning permit.	Owner or duly authorised agent of the owner makes building application for Building approval. Part of the Building Permit requirements may include obtaining approval from some other authorities, e.g. the Metropolitan Fire and Emergency Services Board (MFSEB).	<ul style="list-style-type: none"> • <i>Building Act 1993</i>, Building Regulations 1994 • Building Code of Australia
Private Certifiers (Relevant Building Surveyors)	As above	As above	As Above.

Queensland

Department of Local Government, Planning, Sport and Recreation	Oversee building codes and regulations relating to approvals for building work to ensure the quality, structural integrity and safety of public and private building works and infrastructure.		<ul style="list-style-type: none"> • <i>Integrated Planning Act 1997</i> • <i>Building Act 1975</i> • Standard Building Regulation 1993 • Queensland Development Code
Local government	A local government must appoint building certifiers to assess and decide building applications.	Assess building application for compliance with the legislation including: site investigation; other development approvals; consistency with earlier approvals; other approvals required by planning schemes; amenity and aesthetics; sewerage and water supply; and code applications.	Owner receives approval documents. Archive building approval documents

continued next page

Table G.2 (continued)

<i>Key Institutions</i>	<i>Responsibilities</i>	<i>Processes</i>	<i>Key documents</i>
Private Certifiers	Assess and decide building approval.	<p>Building referral agency responses required. Further information required from applicant. Accepting certification from competent persons. Issue a decision notice and development permit. Application refused or not satisfied with approval conditions, appeal to Building and Development Tribunal.</p> <p>Assess building application for compliance with the legislation including: site investigation; other development approvals; consistency with earlier approvals; other approvals required by planning schemes; amenity and aesthetics; sewerage and water supply; and code applications. Building referral agency responses required. Further information required from applicant. Accepting certification from competent persons. Issue a decision notice and development permit. Application refused or not satisfied with approval conditions, appeal to Building and Development Tribunal.</p>	<p>Certifier lodges notice of engagement within 5 days.</p> <p>Owner informed private certifier is engaged and given details of certifier's responsibilities.</p> <p>Owner receives building approval documents.</p> <p>Council receives building approval documents for archiving.</p>
South Australia			
Planning SA	Development Act and Regulations 1993	Single development process consolidating planning and building consents.	
Councils	Local government issues development approval.	<p>Construction can commence when development approval has been issued, but one day's notice of commencement must be given to council.</p> <p>Both planning and building consents must be in place and be consistent with each other and then the development approval must be issued within 5 days.</p>	<ul style="list-style-type: none"> • Development approval

Western Australia

Department of Housing and Works	Administer building standards, regulations and building legislation.		<ul style="list-style-type: none"> • <i>Local Government (Miscellaneous Provisions) Act</i>
Local Government Authorities	<p>Assess applications for building licences. Check design compliance with the BCA. Check other statutory approvals are in place.</p> <p>Issue building licences.</p>	<p>Builder submits application for building licence along with plans and specifications.</p> <p>LGA checks design compliance with the BCA. “Deemed to satisfy” solutions are checked by the LGA building surveyor – where performance solutions are utilised in the design the LGA may seek specialist certification from relevant building industry professionals that the design complies with the BCA.</p> <p>Once satisfied the design complies with the BCA, and all other statutory approvals are in place (planning, health etc.), the building licence can be issued. The building licence may specify certain conditions (e.g. the Local Authority may require inspections to be carried out at certain stages of construction).</p>	<ul style="list-style-type: none"> • Building Regulations • Building Code of Australia • Building Licence Application • Building Licence – may specify conditions • Approved plans and specifications – details the building that is approved to be erected.
<p>Building Professionals (architects, engineers, etc.) – only architects have a legislated registration system</p> <p>The provision of certification services by building professionals is not currently regulated</p>	May certify design compliance with the BCA in their specialty areas.	<p>Where specifically requested, building professionals assess the submitted design against the BCA in the appropriate aspect of design.</p> <p>This is an informal and completely unregulated process – it is up to the LGA Building Surveyor whether or not to obtain this certification to be satisfied the design complies with the BCA. There is no requirement to do so.</p>	<p>Compliance Certificate (may be issued); or</p> <p>Plans may simply be signed (to signify BCA compliance certified by relevant professional).</p>

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Table G.2 (continued)

<i>Key Institutions</i>	<i>Responsibilities</i>	<i>Processes</i>	<i>Key documents</i>
Tasmania			
Building Surveyor (BS) (Can be private or working in a council)	Issuing Certificate of Likely Compliance (Compliance with the BCA).	Owner applies to BS for Certificate of Likely Compliance. BS obtains report from Reporting Authority if required. (CO & EHO). BS issues Certificate of Likely Compliance if proposed building work in compliance with BCA.	<ul style="list-style-type: none"> • Chief Officers (CO) Report • Environmental Health Officers (EHO) Report • Certificate of Likely Compliance
Permit Authority (PA) (Appointed by local council)	Issuing Building Permits.	Owner submits Certificate Of Likely Compliance with application and any other required documents to PA for Building Permit. PA issues Building Permit.	<ul style="list-style-type: none"> • Application for Building Permit • Building Permit
Northern Territory			
Building Advisory Committee	Established under the NT <i>Building Act 1993</i> to advise the Minister on the administration of the Act.	Direct dialogue with Minister for Lands and Planning.	Ministerial Correspondence
Director Building Control	Public Sector employee appointed by the Minister for Lands and Planning to advise Minister on all matters relating to building in the Territory and to administer the Act.		
Private Building Certifier (PBC)	Building Practitioner registered with the Building Practitioners Board. Function of private building certifier is to grant building permits under and in accordance with NT <i>Building Act 1993</i> and Regulations.	Building owner applies to private building certifier for a building permit submitting all relevant drawings etc. PBC reserves building permit number from Building Advisory Services Branch. Assesses drawings for compliance with Building Act and regulations and issues Building Permit. PBC must submit all documentation to Building Advisory Services Branch within 7 days of issue of permit.	<ul style="list-style-type: none"> • Building Permit

Building Appeals Board	<p>Established under the NT <i>Building Act</i> 1993.</p> <p>Members appointed by Minister for Lands and Planning who have experience in building industry or matters connected with building industry.</p> <p>Functions are:</p> <ol style="list-style-type: none"> 1. to determine appeals relating to disputes about effect of Building Regulations or the manner in which the Building Regulations are to be or have been complied with; 2. to determine appeals relating to the application of the Building Regulations to land, buildings or building work. 	<p>Building owner or agent (PBC, architect or other practitioner) makes application for a modification to the application of a Building Regulation and submits all drawings and evidence for their case.</p> <p>Board considers application and either requests further information or makes determination.</p>	<ul style="list-style-type: none"> • Letter of Approval • Letter of Refusal
Building Advisory Services Branch, (BASB)	Maintains a Building Permit Register.	Holds a record of all documentation with regard to building permit issued on relevant building record.	<ul style="list-style-type: none"> • Building Record
Australian Capital Territory			
Building surveyor (ACT Government does not compete against building surveyors).	Comply with relevant laws regulating building approval and commencement.	Landowner appoints certifier (a building surveyor) and licensed builder. Landowner applies to certifier for building approval. Builder applies to certifier for commencement notice. Certifier grants or refuses to grant building approval and / or commencement notice.	Authority provides forms for building approval application. Building approval (approved construction plans) is stamped on and / or attached to plans.

Table G.3 Inspections of building work

<i>Key Institutions</i>	<i>Responsibilities</i>	<i>Processes</i>	<i>Key documents</i>
New South Wales			
Local council (as principal certifying authority)	<p>Advise person who appoints them of mandatory and other inspections that will be required.</p> <p>Be satisfied that construction certificate or complying development certificate in place, that the principal contractor has the appropriate licence and insurance (if required), that any owner-builder has the permit required, before work commences.</p> <p>Inspect/assess/gather sufficient and suitable evidence, in order to satisfy themselves work is in accordance with BCA and not inconsistent with certified documents/development consent.</p>	<p>Arrange for mandatory and other required inspections to be carried out (principal contractor or owner-builder needs to give PCA at least 48 hours notice), carry out the final mandatory inspection (at completion of building work prior to any occupation certificate being issued), and keep records of inspections and any missed inspections.</p>	<p>Records of inspections and records of missed inspections.</p> <p><i>Environmental Planning and Assessment Act 1979,</i> Environmental Planning and Assessment Regulation 2000, Building Code of Australia</p> <p>Certified documents (plans, specifications, etc.)</p> <p>Development consent.</p>
Private accredited certifier (as principal certifying authority)	<p>Advise person who appoints them of mandatory and other inspections that will be required.</p> <p>Be satisfied that construction certificate or complying development certificate in place, that the principal contractor has the appropriate licence and insurance (if required), that any owner-builder has the permit required, before work commences.</p> <p>Notify council of their appointment as the PCA.</p>	<p>Arrange for mandatory and other required inspections to be carried out (principal contractor or owner-builder needs to give PCA at least 48 hours notice), carry out the final mandatory inspection (at completion of building work prior to any occupation certificate being issued), and keep records of inspections and any missed inspections.</p> <p>Must forward a copy of record of inspections (including any missed) to the consent authority and council (if not consent authority) with copy of determination of the occupation certificate application.</p>	<p>Records of inspections and records of missed inspections.</p> <p><i>Environmental Planning and Assessment Act 1979,</i> Environmental Planning and Assessment Regulation 2000, Building Code of Australia.</p> <p>Certified documents (plans, specifications, etc.).</p>

Inspect/assess/gather sufficient and suitable evidence, in order to satisfy themselves work is in accordance with BCA and not inconsistent with certified documents/development consent.

Must also send copy of records of missed inspections to accreditation body.

Development consent.⁸⁴

Victoria

Building Commission	Oversight of building regulations relating to inspections.		<ul style="list-style-type: none"> • <i>Building Act 1993</i>, Building Regulations 1994
Local councils	Where local council has issued the building permit, to undertake the following mandatory inspections as noted in the building regulations and can be inspected at any stage whether or not a mandatory inspection stage.	<p>Builder must notify council when works have been completed for mandatory inspection stage.</p> <p>The mandatory inspection stages are: prior to placing of footing; prior to pouring of insitu reinforced concrete; completion of framework; final — upon completion of all building work.</p> <p>Or variations of the above by the relevant building surveyor (RBS).</p>	<ul style="list-style-type: none"> • Certificate of Final Inspection; or • Certificate of Occupancy
Private certifiers	As per local councils.	As per local councils.	<ul style="list-style-type: none"> • Certificate of compliance

Queensland

Department of Local Government, Planning, Sport and Recreation	Oversee building codes and regulations relating to inspections of building work.		<ul style="list-style-type: none"> • <i>Building Act 1975</i> • Standard Building Regulation 1993
Local government	Council building certifiers undertake mandatory inspections as per Standard Building Regulation 1993.	Builder must notify council when inspection required. Building certifier inspects the work or accepts a certificate from a competent person for compliance with the legislation.	<ul style="list-style-type: none"> • Standard Building Regulation 1993 • Written notice by certifier that inspected work complies
Private certifier	Private certifier undertakes mandatory inspections as per Standard Building Regulation 1993.	Private certifier inspects building work when requested by builder or accepts a certificate from a competent person. Building certifier must do final stage inspection.	<ul style="list-style-type: none"> • Standard Building Regulation 1993 • Written notice by certifier that inspected work complies

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Table G.3 (continued)

<i>Key Institutions</i>	<i>Responsibilities</i>	<i>Processes</i>	<i>Key documents</i>
South Australia			
Planning SA	Oversight of building regulations.		<ul style="list-style-type: none"> • Development Act and Development Regulations 1993
Local councils	<p>Undertake inspections as set out in Councils' inspection policies for compliance with development approval (compliance with both planning and building consents).</p> <p>Authorised officers have powers to enter and inspect building work.</p>	<p>Council must have an inspection policy and have responsibility for on-going safety of buildings in their area. They manage this according to risk and resources.</p> <p>Builder must notify council at mandatory notification stages. Council may or may not inspect.</p> <p>Builder/owner issue Statement of Compliance on completion to council or private certifier (all buildings).</p> <p>Council or certifier issues certificate of occupancy for Class 2 to 9 buildings based on Statement of Compliance. If issued by private certifier, must be forwarded to local council.</p>	<ul style="list-style-type: none"> • Council inspection policies • Enforcement notices • Statement of compliance. • Certificate of Occupancy
Private certifiers	<p>If consent granted by private certifier, then Statement of Compliance must be sent to private certifier, who then sends a copy to the local council.</p> <p>Owner builders must get a private certifier or a licensed building work supervisor to sign part of the Statement of Compliance on completion of work.</p>	<p>Private certifiers must forward copies of Statements of Compliance to the local council.</p> <p>Private certifiers may issue Certificate of Occupancy on receipt of Statement of Compliance and relevant documentation.</p>	<ul style="list-style-type: none"> • Statement of Compliance • Certificate of Occupancy
Western Australia			
Department of Housing and Works	Administer building standards, regulations and building legislation.		<ul style="list-style-type: none"> • Local Government (Miscellaneous Provisions) Act

- Building Regulations
- Building Code of Australia

Local Government Authorities – typically through person appointed to office of Building Surveyor	Has discretionary power to conduct independent building inspections. May inspect building works, but inspections are not mandatory under current legislation.	Inspections or conditions are specified on the building licence. Building surveyor may inspect construction at certain stages for compliance with approved plans.
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Tasmania

Building Surveyor (BS) (Can be private or working in a Council)	Overseeing compliance of the building work with the Building Permit and BCA.	Builder advises BS before starting work. BS determines mandatory notification stages. Builder advises BS when the building work reaches mandatory notification stage. BS may inspect. BS can issue a written direction to builder after inspection if required. Builder may continue 1 day after mandatory notification stage passes. BS issues Certificate of Final Inspection. (To include reasons for non-inspection or alternative on Certificate where inspections not undertaken.)	<ul style="list-style-type: none"> • Building Start Work Notice • Building Inspection Direction • Certificate of Final Inspection
Permit Authority (PA) (Appointed by local council)	Issuing Completion Certificates.	Owner applies to PA for Completion Certificate. PA issues Certificate if: <ul style="list-style-type: none"> • Occupancy Certificate issued • Certificate of Final Inspection provided • All conditions of Permit have been met. 	<ul style="list-style-type: none"> • Certificate of Completion (Building Work)

Northern Territory

Private Building Certifier (PBC)	Responsible for notifying person carrying out building work of inspection stages. Responsible for on-site inspection of building work at particular stages. PBC may also inspect building work at any time, whether or not an inspection stage has	Before building work commences, the private building certifier who granted the building permit, notifies in writing, the person who is carrying out the building work, the inspection stages, if any, of the building work.	<ul style="list-style-type: none"> • Inspection Reports
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been completed with the owner's consent.

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Table G.3 (continued)

<i>Key Institutions</i>	<i>Responsibilities</i>	<i>Processes</i>	<i>Key documents</i>
	PBC may, after inspection work, direct the person carrying building work to carry out work so that the work complies with the relevant building permit, the Act or Regulations as the case requires.	PBC inspects stage upon notification by the owner or person carrying out building work of completion of that particular stage No building work is to proceed until directed to do so by building certifier.	
Building Advisory Services Branch (BASB)	Maintains a Building Record.	Holds a copy of Inspection List undertaken by Building Certifier relevant to the Building Permit.	<ul style="list-style-type: none"> • Building Record
Australian Capital Territory			
Certifier (non-ACT-Government in all but exceptional cases).	Comply with laws regulating building work inspection at mandatory inspection stages (footings, certain concrete elements, frames, final completion).	Licensee in charge of work is prohibited from building beyond mandatory stages unless certifier notified, work inspected and certified by certifier as compliant with requirements and certifier gives permission to proceed. Certifier required to advise on how to bring non-compliant work into compliance.	<ul style="list-style-type: none"> • Building approval • Certificates relied on by certifier (eg engineer's certification) • Certifier's inspection record • Certifier's advice on how to achieve compliance (if applicable) • Certifier's compliance certification and permission to proceed.
ACT Government certifier (only in exceptional cases where the appointed certifier and no other certifier will provide service and building work has commenced but is incomplete).	As for certifier above.	As for certifier above.	As for certifier above.

Table G.4 Enforcement of building notices/orders etc

<i>Key Institutions</i>	<i>Responsibilities</i>	<i>Processes</i>	<i>Key documents</i>
New South Wales			
Private accredited certifier (as principal certifying authority)	<p>Monitor compliance with development consent during construction phase of development.</p> <p>NB: Construction certificate becomes part of development consent when issued.</p> <p>NB: Complying development certificate is both a development and building approval.</p>	<p>Can issue notices of intention to serve orders if non-compliance occurs. Must give the local council a copy of the notice of intention and the council decides whether or not to issue an order.</p> <p>Attend when person served with the order makes representations to the council or consent authority.</p>	<ul style="list-style-type: none"> • Notices of intention to serve orders • <i>Environmental Planning and Assessment Act 1979</i> • Environmental Planning and Assessment Regulation 2000
Local council (as consent authority) or other consent authority	<p>Ensure compliance with development consent.</p> <p>NB: Construction certificate becomes part of development consent when issued.</p> <p>NB: Complying development certificate is both a development and building approval.</p>	<p>Can issue penalty infringement notices (carrying on the spot fines), notices of intention to serve orders and orders if non-compliance occurs.</p>	<ul style="list-style-type: none"> • Penalty infringement notices, notices of intention to serve orders and orders • <i>Environmental Planning and Assessment Act 1979</i> • Environmental Planning and Assessment Regulation 2000
Any person	<p>Can take action to ensure compliance with development consent.</p>	<p>Can bring proceedings in the Court for an order to restrain a breach of the <i>Environmental Planning and Assessment Act 1979</i>.</p>	<ul style="list-style-type: none"> • <i>Environmental Planning and Assessment Act 1979</i> • Environmental Planning and Assessment Regulation 2000
Victoria			
Local council	<p>Has ultimate responsibility for administering the <i>Building Act 1993</i>, within its municipality. It can issue notices and orders and also take legal action.</p>	<p>Either through the inspection process the council becomes aware of problems or complaint from community, the council can investigate and issue the appropriate notices or orders.</p> <p>Dependant upon the nature of the issue, council can process through the Courts or in extreme cases can take action to make safe and charge costs to the site.</p>	<ul style="list-style-type: none"> • <i>Building Act 1993</i> • Building Regulations 1994

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Table G.4 (continued)

<i>Key Institutions</i>	<i>Responsibilities</i>	<i>Processes</i>	<i>Key documents</i>
Private Certifier (Relevant Building Surveyor (RBS))	Has responsibility for administering the <i>Building Act 1993</i> , only for Building Permits they have issued. It can issue notices and orders. If there is no action then the RBS can refer it to the Commission.	Either through the inspection process the RBS becomes aware of problems or complaint from adjoining property. The RBS can investigate and issue the appropriate notices or orders. If the orders are not addressed then the RBS can refer to the Building Commission.	<ul style="list-style-type: none"> • <i>Building Act 1993</i> • Building Regulations 1994
Building Commission	The Commission issues orders that have been referred to it from the Private Surveyors. If those orders are not met then they are pursued in the law courts.	The Private Building Surveyor or the public provide details to the Commission.	<ul style="list-style-type: none"> • <i>Building Act 1993</i> • Building Regulations 1994
Queensland			
Department of Local Government, Planning, Sport and Recreation	Oversee building codes and regulations relating to enforcement action for building work.		<ul style="list-style-type: none"> • <i>Integrated Planning Act 1997</i> • <i>Building Act 1975</i> • Standard Building Regulation 1993
Local government	Council may take enforcement action for non-compliance with building approval.	<p>Council issues show cause or enforcement notice for non-compliance of work. May prosecute in court.</p> <p>Council may complain to Building Services Authority (BSA) about the conduct of a private certifier or take a complaint directly to the Commercial and Consumer Tribunal.</p>	<ul style="list-style-type: none"> • <i>Integrated Planning Act 1997</i> • <i>Building Act 1975</i>
Private certifier	Certifier may take enforcement action for non-compliance with building approval.	<p>Certifier issues show cause or enforcement notice for non-compliance of work. Local government may take over for prosecution.</p> <p>Owner may complain to BSA about the performance of a private certifier.</p> <p>Appeal against the decision by the BSA of professional misconduct to the Commercial and Consumer Tribunal.</p>	<ul style="list-style-type: none"> • <i>Integrated Planning Act 1997</i> • <i>Building Act 1975</i> • <i>Commercial and Consumer Tribunal Act 2003</i>

South Australia

Councils	Councils have responsibility for on-going safety of buildings in their area and for addressing breaches of the Act.	Council authorised officers may issue notices to remedy breaches of the Act, non-compliance with approved documents and other safety risks.	<ul style="list-style-type: none">• Development Act and Regulations 1993• s84 notices may be issued
Environment, Resources and Development Court	Enforcement orders, disputes and appeals relating to planning consents, building consents, development approval, Certificates of Occupancy and enforcement notices.	<p>Any person can apply to the Court for rectification of a Breach of the Act.</p> <p>Councils can apply to the Court to have enforcement orders issued.</p> <p>Hears appeals with respect to development approvals, consents and enforcement notices, as per Development Act & Regulations. No appeal against decision of Commissioner in building matters on decision of fact.</p>	<ul style="list-style-type: none">• Forms available from the Court Registrar – fees payable to Court• Rules of the Court• Development Act and Regulations 1993• Court can issue orders

Western Australia

Department of Housing and Works	Administer building standards, regulations and building legislation.		<ul style="list-style-type: none">• Local Government (Miscellaneous Provisions) Act• Building Regulations• Building Code of Australia
Local Government Authorities (LGA)- typically through person appointed to office of Building Surveyor	<p>May enforce compliance for failure to comply with licence conditions/follow approved drawings.</p> <p>May enforce building notices/orders.</p>	Each Local Government Authority may enforce for buildings in its locality.	<ul style="list-style-type: none">• Building Notice/Order (non-compliance/stop work)
Local Government Authorities – typically through person appointed to office of Building Surveyor	<p>Police and manage unauthorised building activity.</p> <p>Enforce current building standards.</p>	<p>LGA may issue notice to demolish or alter unauthorised buildings.</p> <p>If satisfied building work meets the relevant standards the LGA may withdraw a notice to demolish or alter illegal buildings.</p>	<ul style="list-style-type: none">• Notice to demolish or regularise – Demolition or Removal Notice

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Table G.4 (continued)

<i>Key Institutions</i>	<i>Responsibilities</i>	<i>Processes</i>	<i>Key documents</i>
Builders Registration Board	<p>Prosecution for illegal building works (constructing without a building licence).</p> <p>Prosecution of unregistered persons for construction of works valued over \$12,000.</p>	Prosecution for illegal building work.	<ul style="list-style-type: none"> • Court documents for prosecution
Tasmania			
Building Surveyor (BS) (Can be private or working in a council)	Issuing Building Notices and Building Orders for work he has been engaged to assess which does not comply with Permit or Act.	<p>BS issues Building Notice to show cause why (amongst other things) specific work should not be carried out. A person may make representations and BS can revoke Notice.</p> <p>If Building Notice not revoked BS to issues Building Order requiring the work to be carried out.</p> <p>A person must not fail to comply with a Building Order.</p>	<ul style="list-style-type: none"> • Building Notice • Building Order
General Manager of Council	<p>Ensuring that proceedings are taken against persons failing to comply with Act where:</p> <ul style="list-style-type: none"> • threat to life may result from the condition of existing buildings; or • building work is undertaken without a building permit or a building is used in contravention of the Act or is not maintained in accordance with Regulations. 	In undertaking the normal governance role, Council officers would take action under the <i>Building Act 2000</i> to issue the relevant Notice or Order.	<ul style="list-style-type: none"> • Emergency Order • Building Notice • Fire Upgrading Report • Fire upgrading Notice • Building Orders
Northern Territory			
Director Building Control	<p>Responsible for enforcement of safety and building standards.</p> <p>Director may serve a building notice on an owner of a building or the owner's agent, if the Director is of the opinion that:</p> <ul style="list-style-type: none"> • building work has been carried out on the building without a building permit or in 	<p>Building Notice may require owner or agent to show cause within set period specified by Director Building Control why occupation of the building or its use for public assembly should not be prohibited.</p> <p>The owner or agent has specified period to make representations to the Director.</p>	<ul style="list-style-type: none"> • Building Notice • Building Order • Emergency Order

- contravention of the Act;
- the building's use contravenes the Act;
- the building is unfit for use or occupation;
- or

it is a danger to its users or the users of adjoining properties or streets.

Director may make a Building Order after the time allowed for making representations has expired.

Director may make a Building Order without a Building Notice if he deems the building work required to be sufficiently minor.

Where in the opinion of the Director it is necessary to do so because of a threat to life arising out of the condition, use or conduct of a public assembly, of a building, the Director may make an emergency order.

Building Order may prohibit occupation of a building or its use or require owner or agent to evacuate, to stop work or to carry out building work or to comply with any other direction as specified within 28 days.

Private Building Certifier

After an inspection, a person carrying out building work fails to comply with a direction to carry out building work, so as to make it comply with the building permit or Act, shall be served with a building notice.

Building Certifier may make Building Order also.

Building Certifier who makes a building order must provide a copy of the order within 2 days to the Director Building Control.

Building Advisory Services Branch (BASB)

Maintains a Building Record.
Maintains a Register of Building Orders.

Holds a separate record of all documentation with regard to building notices and orders issued on relevant property record.

- Building Record
- Building Orders Register

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Table G.4 (continued)

<i>Key Institutions</i>	<i>Responsibilities</i>	<i>Processes</i>	<i>Key documents</i>
Australian Capital Territory			
ACT Planning and Land Authority	To administer key laws regulating construction.	Authority issues notices and takes compliance action or initiates DPP prosecution for failure to comply.	Notices or orders under various laws.
Certifiers	To consider issuing notices prohibiting further building work being carried out (Stop Work Notices).	Certifier has discretion to issue notice under building law in respect of building work certifier is appointed for where certifier believes grounds exist for notice. Alternatively, certifier can request Authority to issue order.	Inspection records and Stop Work Notices.

Table G.5 Occupancy approval

<i>Key Institutions</i>	<i>Responsibilities</i>	<i>Processes</i>	<i>Key documents</i>
New South Wales			
Local council (as principal certifying authority)	Issue occupation certificate.	<p>Issue an occupation certificate when final inspection has been done, preconditions to the issue of the occupation certificate have been met and the building is suitable for use or occupation in accordance with its classification under the Building Code of Australia.</p> <p>Also needs to ensure that development consent and construction certificate or complying development certificate is in force.</p>	<p>Development consent and construction certificate (or complying development certificate).</p> <p>Occupation certificate. Fire safety certificate and fire safety schedule accompany occupation certificate (except for class 1a and 10 buildings).</p> <p><i>Environmental Planning and Assessment Act 1979</i>, Environmental Planning and Assessment Regulation 2000, and Building Code of Australia.</p>
Private accredited certifier (as principal certifying authority)	Issue occupation certificate.	<p>Issue an occupation certificate when final inspection has been done, preconditions to the issue of the occupation certificate have been met and the building is suitable for use or occupation in accordance with its classification under the Building Code of Australia.</p> <p>Also needs to ensure that development consent and construction certificate or complying development certificate is in force.</p>	<p>Development consent and construction certificate (or complying development certificate).</p> <p>Occupation certificate. Fire safety certificate and fire safety schedule accompany occupation certificate (except for class 1a and 10 buildings).</p> <p><i>Environmental Planning and Assessment Act 1979</i>, Environmental Planning and Assessment Regulation 2000, and Building Code of Australia.</p>

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Table G.5 (continued)

<i>Key Institutions</i>	<i>Responsibilities</i>	<i>Processes</i>	<i>Key documents</i>
Victoria			
Local councils	<p>Where local council has been appointed to issue the Occupancy Permit (OP), the Relevant Building Surveyor has obligations to ensure that the documentation complies with the <i>Building Act 1993</i>, Building Regulations 1994 and the BCA and that the premises are suitable for occupation.</p> <p>Note:</p> <ol style="list-style-type: none"> 1. OP for Temporary structures can only be issued by the Commission. 2. For some Places of Public Entertainment (POPE) that are nominated, the OP can only be issued by the Commission. 	<p>Owner or duly authorised agent of the owner makes application for OP.</p> <p>Part of the OP requirements may include obtaining approval from some other authorities, e.g. the MFSEB.</p>	<ul style="list-style-type: none"> • <i>Building Act 1993</i>, Building Regulations 1994 • Building Code of Australia. • Other relevant Acts
Private Certifiers (Relevant Building Surveyors)	<p>As above</p> <p>Note: Private Surveyors cannot issue OP for POPE or for Temporary Structures.</p>	As above	As above
Building Commission	<p>For Temporary Structures and designated POPE's the BC assess suitability of application for OP ensuring compliance with relevant Acts, Regulations. Issue the OP for designated venues and for Temporary Structures.</p>	<p>An application is made under the Building Regulations. The application is assessed and an OP is issued if suitable.</p>	<ul style="list-style-type: none"> • <i>Building Act 1993</i> • Building Regulations 1994
Local government	<p>Issue a certificate of classification for buildings other than for single detached class 1a and 10.</p> <p>Final inspection certificate for single detached class 1a and 10.</p>	<p>Owner receives certificate of classification. Cannot use building until certificate issued.</p>	<ul style="list-style-type: none"> • Certificate of classification • Final inspection certificate

Private certifier	Issue a certificate of classification for buildings other than for single detached class 1a and 10 buildings. Final inspection certificate for single detached class 1a and 10.	Owner receives certificate of classification. Cannot use building until certificate is issued. Certifier lodges copy of certificate of classification and inspection within 5 days after all building work is inspected.	<ul style="list-style-type: none"> • Certificate of classification • Final inspection certificate
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South Australia

Local councils	To monitor that buildings are not illegally occupied and issue Certificates of Occupancy when sought.	On application, issue Certificate of Occupancy once Statement of Compliance received.	<ul style="list-style-type: none"> • Application for Certificate of Occupancy • Certificate of Occupancy
Private certifiers	To issue Certificates of Occupancy when sought.	On application, issue Certificate of Occupancy once Statement of Compliance received and send a copy to the council.	<ul style="list-style-type: none"> • Application for Certificate of Occupancy • Certificate of Occupancy
Installers of safety items	Issue certificate stating essential safety provisions have been installed in accordance with approval.	Required to be submitted as part of Statement of Compliance for Certificate of Occupancy.	<ul style="list-style-type: none"> • Form 2, Schedule 16
Building owner	Not to occupy a building without a Certificate of Occupancy or in contravention of a Statement of Compliance. Must issue annual certificate verifying maintenance of essential safety provisions – failure to provide can be grounds for council to revoke Certificate of Occupancy.		<ul style="list-style-type: none"> • Certificate of Occupancy • Form 3, Schedule 16

Western Australia

Department of Housing and Works	Administers building standards, regulations and building legislation.		<ul style="list-style-type: none"> • Local Government (Miscellaneous Provisions) Act • Building Regulations • Building Code of Australia
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Table G.5 (continued)

<i>Key Institutions</i>	<i>Responsibilities</i>	<i>Processes</i>	<i>Key documents</i>
Local Government Authorities	Issue Certificates of Classification for Class 2 – 9 Buildings. No certificates are issued for other classes of building.	Once satisfied the construction meets the requirements for that particular class of building, the relevant Local Government Authority issues a Certificate of Classification. Building cannot be occupied until certificate has been issued.	Certificate of Classification – specifies construction meets the requirements for that particular class of building and allows building to be used for purpose specified.
Tasmania			
Building Surveyor (BS) (Can be private or working in a council)	Issuing Occupancy Permits.	Owner applies to BS for Occupancy Permit. BS obtains report from Reporting Authority if required (Chief Officers (CO) & Environmental Health Officers (EHO)). BS issues Occupancy Permit if satisfied building or part of building suitable for occupation. New Occupancy Permit required for change of use.	<ul style="list-style-type: none"> • Chief Officers Report • Environmental Health Officers Report • Occupancy Permit
General Manager (GM) of council	Issuing Temporary Occupancy Permits for buildings (not covered by normal Occupancy Permit) and temporary structures.	Owner applies to GM for Temporary Occupancy Permit. GM takes into account various matters in Regulations including a Certificate of Suitability for Temporary Occupation for a building or a Certificate of Likely Compliance of the Temporary Structure with the BCA. Both from a BS. GM issues Temporary Occupancy Permit if satisfied building or temporary structure suitable for occupation.	<ul style="list-style-type: none"> • Application for Temporary Occupancy Permit • Certificate of Suitability for Temporary Occupation • Certificate of Likely Compliance • Temporary Occupancy Permit

Northern Territory

Private Building Certifier (PBC)	Function of PBC is to grant Occupancy Permit under and in accordance with the NT <i>Building Act 1993</i> and Regulations. Illegal to occupy a building without an occupancy permit or approval to occupy on temporary basis.	Applications are made by building owner or agent to PBC in writing. Application must be accompanied by a declaration stating that the building work to which it relates has been carried out in accordance with the building permit.	<ul style="list-style-type: none">• Occupancy Permit• Builders' Declaration
Building Advisory Services Branch (BASB)	Maintains a Register of Building Files.	Holds a record of all documentation with regard to occupancy permits issued on relevant building file.	<ul style="list-style-type: none">• Building File

Australian Capital Territory

ACT Planning and Land Authority (function is not privatised)	Administer ACT building occupancy law. Authority issues or refuses to issue certificate of occupancy or use.	Land owner applies to authority for occupancy certificate. Authority checks for certifier's final compliance certificate recommending issue of occupancy certificate and for electrical and plumbing clearances.	<ul style="list-style-type: none">• Authority provides a combined form for occupancy certificate application and certifier's compliance certificate and recommendation• Authority provides forms for electrical and plumbing clearances• Certificate of occupancy or use
Australian Government	Administer relevant Commonwealth laws and land interest agreements.	Certain Commonwealth land parcels in the ACT may have specific occupancy approval process requirements eg Canberra International Airport.	

Table G.6 Essential services maintenance

<i>Key Institutions</i>	<i>Responsibilities</i>	<i>Processes</i>	<i>Key documents</i>
New South Wales			
Local council	Determine which fire safety measures (existing and new) serving a building must be subject to ongoing maintenance and certification.	Must issue a fire safety schedule each and every time they issue, in relation to any Class 1b to 9 building: a development consent for a change of BCA classification – no building work proposed or required; a construction certificate; a complying development certificate; a fire safety order. Schedule must list all statutory fire safety measures and can include any others nominated by authority. Must also specify levels of performance to which measures must be maintained and against which they will be routinely assessed.	Fire safety schedules.
	May make any existing Class 1b to 9 building subject to the maintenance and certification requirements.		Fire safety certificates.
	Cannot issue occupation certificate unless certification received from owner/owner's agent verifying all measures listed in fire safety schedule have been assessed and found to be capable of performing to the level specified in the fire safety schedule.		Fire safety statements.
	Keeper of the public record. Copies of all initial and routine certification must be submitted to local council (and the NSW Fire Brigades). Must also be displayed in building.	May issue a fire safety order if council wishes to make an existing building subject to the requirements or council seeks to require compliance with the legislation.	Fire safety orders.
	Monitor/police compliance with the legislation.	Cannot issue an occupation certificate unless a fire safety certificate is received from the owner or owner's agent.	<i>Environmental Planning and Assessment Act 1979;</i> <i>Environmental Planning and Assessment Regulation 2000;</i> <i>Building Code of Australia.</i>
Private accredited certifiers	Determine which fire safety measures (existing and new) serving a building must be subject to ongoing maintenance and certification.	May develop/maintain databases to monitor submission of routine certification.	
		May take enforcement action.	
		Must issue a fire safety schedule each and every time they issue, in relation to any Class 1b to 9 building: a construction certificate or a complying development certificate. Schedule must list all statutory fire safety measures and can include any others nominated by authority. Must also specify	Fire safety schedules. Fire safety certificates. <i>Environmental Planning and</i>

	Cannot issue occupation certificate unless certification received from owner/owner's agent verifying all measures listed in fire safety schedule have been assessed and found to be capable of performing to the level specified in the fire safety schedule.	levels of performance to which measures must be maintained and against which they will be routinely assessed. Cannot issue an occupation certificate unless a fire safety certificate is received from the owner or owner's agent.	<i>Assessment Act 1979;</i> Environmental Planning and Assessment Regulation 2000; Building Code of Australia.
NSW Fire Brigades	Copies of all initial and routine certification must be submitted to the NSW Fire Brigades. Monitor compliance with the legislation.	May take enforcement action.	Fire safety certificates. Fire safety statements. <i>Environmental Planning and Assessment Act 1979;</i> Environmental Planning and Assessment Regulation 2000; Building Code of Australia.
Building owners	To ensure all essential fire safety measures serving their building are kept in working order. To verify they are in working order, initially, and on a routine basis.	Owners/owner's agent must arrange for measures to be maintained/serviced as necessary. Nature and frequency of maintenance/servicing is not regulated. Owners/owner's agent must have an appropriately qualified person/persons assess the essential fire safety measures initially (for the purpose of the issue of the fire safety certificate) and routinely (for the purpose of the issue of the fire safety statement). Following assessment owners/owner's agent must ensure submission, of required certification (fire safety certificates and statements) in a timely fashion. Fire safety certificates must be submitted before issue of occupation certificate or whenever specified by fire safety order. Fire safety statements must be submitted annually or more frequently if required by authority.	Fire safety schedules. Fire safety certificates. Fire safety statements. <i>Environmental Planning and Assessment Act 1979;</i> Environmental Planning and Assessment Regulation 2000; Building Code of Australia.

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Table G.6 (continued)

<i>Key Institutions</i>	<i>Responsibilities</i>	<i>Processes</i>	<i>Key documents</i>
Victoria			
Building Commission	Oversight of building regulations relating to maintenance of essential services.		<ul style="list-style-type: none"> • <i>Building Act 1993</i> • Building Regulations 1994 • Practice Note 23
Local councils	If appointed as the Relevant Building Surveyor for the issue of the Occupancy Permit, the RBS must determine the essential services within the building, their level of efficacy, their frequency and their maintenance requirements. This is issued as a condition of OP or determination with the CoFI.	RBS determines and lists the essential services, their frequency and maintenance requirements to be adhered to.	<ul style="list-style-type: none"> • <i>Building Act 1993</i> • Building Regulations 1994 • Practice Note No. 23
Private Certifier	As above.	As above.	As above.
Owner	To maintain essential services, keep records and produce an annual report. The record keeping provisions are only spelt out for the Division 1 buildings (ie post July 1994).	Process as specified on conditions to OP or determination on CoFI.	As above.
Queensland			
Queensland Fire and Rescue Service (QFRS)	Inspection of some classes of structures.	Refer QFRS.	
South Australia			
Certifiers	When issuing building consent, must identify essential safety provisions in building that require ongoing maintenance (as per Ministers Specification SA76).	Form 1 filled out and issued to applicant as part of building rules consent. Receive Form 2 with Statement of Compliance prior to issuing Cert of Occupancy.	

Councils	When issuing building consent, must identify essential safety provisions in building that require ongoing maintenance (as per Ministers Specification SA76).	Form 4 filled out and issued to applicant as part of building rules consent. Receive Form 2 with Statement of Compliance prior to issuing Cert of Occupancy.	<ul style="list-style-type: none"> • Form 4, schedule 16 • Form 2, schedule 16
	Ensure annual certification of safety items. Failure to issue certificate can be basis for rescinding Certificate of Occupancy.	Form 3 filled out and returned annually to council by owner.	<ul style="list-style-type: none"> • Form 3, schedule 16
Building owner	To maintain all essential safety provisions in original condition.	Form 3 filled out annually and forwarded to council.	<ul style="list-style-type: none"> • Form 3, schedule 16

Western Australia

Currently there are no requirements for essential services maintenance.

Tasmania

Building Surveyor (BS) (can be private or working in a Council)	Determining the essential safety and health features and essential safety and health measures appropriate to the building for which maintenance is required.	BS to attach schedule of essential safety and health features and measures to the Occupancy Permit having regard to details provided with application for CoLC, the BCA and Regulations. If alterations or additions occur BS to update to one consolidated Schedule.	<ul style="list-style-type: none"> • Schedule of Essential Safety and Health Features and Measures
Owners	Displaying an annual statement that essential safety and health features and measures are performing to the standard to which they were originally designed. As far as is reasonably practicable ensuring that building maintained for its intended purpose and sufficient information supplied to next owner to maintain building.	Owner to have the Schedule of Essential Safety and Health Features and Measures items maintained by appropriately qualified person. Owner to complete an Annual Maintenance Statement and display adjacent to Occupancy Permit. Owners to keep all maintenance records for last 10 years.	<ul style="list-style-type: none"> • Schedule of Essential Safety and Health Features and Measures • Annual Maintenance Statement
Builder	As far as is reasonably practicable ensuring that sufficient information is supplied to an owner for the owner to maintain the building.		

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Table G.6 (continued)

<i>Key Institutions</i>	<i>Responsibilities</i>	<i>Processes</i>	<i>Key documents</i>
Councils	As far as is reasonably practicable ensuring that the owners of property are informed of their duties under the Act in maintaining their buildings.		
General Manager (GM) of council	Issuing Building Notices to owners if essential health and safety features of the building not maintained in accordance with Regulations.	Refer to Table F4.	Refer to Table F4.
Northern Territory			
Director Building Control (DBC)	Has no specific responsibilities under the current NT <i>Building Act 1993</i> . However, this Act is now under review and it is proposed to introduce legislative provisions to ensure the maintenance of essential safety measurers in commercial and public buildings. The legislative requirements will need to address building permits, approval obligations, reporting requirements of various parties, certification requirements, inspections and responsibilities.	The objectives of the legislation will be to: <ul style="list-style-type: none"> • require the installer of essential safety measures in commercial and public buildings to certify their compliance before a building can be occupied; • require a building owner to obtain and display proof each year that the required maintenance has been carried out; • require a building owner to keep records of maintenance carried out on essential safety features; and • give the DBC authority to enter and audit maintenance records. 	<ul style="list-style-type: none"> • Certificate of Compliance (proposed) • Maintenance of Essential Safety Measures Record
Building Advisory Services Branch (BASB)	Maintains a Building Record.	Relevant documentation on the maintenance of essential safety measures will be kept on the relevant Building Record.	<ul style="list-style-type: none"> • Building Record
Australian Capital Territory			
Nil			

Table G.7 Practitioner licensing

<i>Practitioner</i>	<i>Key Institutions</i>	<i>Requirements</i>	<i>Processes</i>
New South Wales			
Builders, Trade, Specialist (plumbers etc.), Building Consultancy Licences and Owner Builder Permits	Dept of Commerce – Office of Fair Trading – Home Building Service.	Meet criteria as set out in accordance with the <i>Home Building Act 1989</i> , Home Building Regulation 2004 and the <i>Licensing and Registration (Uniform Procedures) Act 2002</i> .	Provide relevant tertiary qualifications and practical industry experience with appropriate references from approved referees.
Victoria			
Building Surveyor Building Inspector Engineer Builder Demolisher Quantity Surveyor	Due to the complexity of the registration requirements the Victorian Building Commission directs interested parties to the Building Commission web site. (http://www.buildingcommission.com.au)		
Queensland			
Building Services Authority	Issue licences to practitioners as building certifiers.	Annual Licence.	Standard Building Regulation 1993.
Australian Institute of Building Surveyors		Level of accreditation to reflect the level of education.	Determined by Australian Institute of Building Surveyors, education and experience as to the level of accreditation granted.

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Table G.7 (continued)

<i>Practitioner</i>	<i>Key Institutions</i>	<i>Requirements</i>	<i>Processes</i>
South Australia			
Architects	Planning SA.	Licensing under Architects Act.	Apply to the Architects Registration Board.
Building Surveyors, Assistant Building Surveyors and Building Surveying Technicians	Planning SA (legislation). Australian Institute of Building Surveyors (Accreditation).	Accreditation by authorised body under the Development Act.	Application and fee to AIBS, must maintain continuing professional development points for re-accreditation assessment every 3 yrs.
	Office of Consumer and Business Affairs.	Licensing under Building Work Contractors Act for all building work contractors and building work supervisors.	Apply to OCBA.
Plumbers, gas fitters and electricians	Office of Consumer and Business Affairs (OCBA).	Licensing under the Plumbers, Gas fitters and Electricians Act.	Apply to OCBA.
Private certifier	Building Advisory Committee as registration authority.	See Table G.8.	Application to Building Advisory Committee (BAC).
Western Australia			
Architects	Architects Board of WA.		Registered under Architects Act.
Builders	Builders Registration Board.		Registered under Builders Registration Act.
Building Surveyors	Department of Housing and Works.		Certificate under Local Government (Miscellaneous Provisions) Act.

Tasmania

Engineers – <i>Structural, Building Services, Energy Management, Environment, Geo-technical, Civil, Acoustic, Fire Safety</i> Building Service Designers – <i>Mechanical, Electrical, Hydraulic, Fire</i> Architects Building Designers – <i>Architectural</i> Builder – <i>Commercial, Domestic, Project Manager, Fire Protection Services, Demolisher</i> Building Surveyors Assistant Building Surveyors	Authorised Bodies appointed by the Minister.	Category and class of building practitioner and their levels and scope of work in accordance with Minister's <i>Guidelines for Schemes for the Accreditation of Building Practitioners in Tasmania</i> .	In accordance with Guidelines and Scheme of Authorised Body.
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Northern Territory

Building Surveyor Certifying Structural Engineer Certifying Civil Engineer Certifying Mechanical Engineer Certifying Plumber and Drainer Certifying Architect	Building Practitioners Board.	Application must demonstrate applicant satisfies eligibility criteria prescribed in law.	Applicant makes written application to the Board who assesses application against set criteria or mutual recognition. Applicant shows proof of current and relevant professional indemnity insurance cover. Building practitioners Board has powers to discipline practitioners who are registered by the Board.
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Table G.7 (continued)

<i>Practitioner</i>	<i>Key Institutions</i>	<i>Requirements</i>	<i>Processes</i>
Plumbers Plumbing Contractors Journeymen	Plumbers and Drainers Licensing Board.	Application must demonstrate applicant satisfies eligibility criteria prescribed in law.	<p>The Board may cancel or suspend the registration of a building practitioner if it is satisfied that –</p> <ul style="list-style-type: none"> a. the registration was obtained by fraud ; b. the practitioner has been found guilty of an offence punishable by imprisonment for a term exceeding 12 mths c. the practitioner has been found guilty of an offence against the NT <i>Building Act 1993</i> or Regs; d. the building practitioner has been negligent as a practitioner; e. a practitioner has been guilty of fraudulent conduct as a practitioner or f. a practitioner has not complied with a prescribed condition relating to his or her registration as a practitioner. <p>Written applications for license are processed by Registrar of the Board and then endorsed by Board.</p> <p>Plumbers and Drainers Licensing Board has power to cancel or suspend registration card or license.</p>

<p>Electricians Electrical Contractors</p>	<p>Electrical Workers and Contractors Licensing Board.</p>	<p>Application must demonstrate applicant satisfies eligibility criteria prescribed in law.</p>	<p>Written applications for license are processed by Registrar of the Board and then endorsed by Board.</p> <p>Electrical Workers and Contractors Licensing Board has power to cancel, suspend, vary conditions of license, fine license holder, admonish the holder and endorse license to that effect or any combination of above.</p>
<p>Registrars</p>	<p>Building Advisory Services Branch, Department of Infrastructure, Planning and Environment (BASB)</p>		<p>Provide administrative support to all Boards.</p>
<p>Architects</p>	<p>NT Architects Board.</p>	<p>Application must demonstrate applicant satisfies eligibility criteria prescribed in law.</p>	<p>Qualified Architects apply to the NT Architects Board for registration.</p> <p>Board has power to cancel registration on grounds of obtaining registration by fraud, if the applicants degree, diploma or other is withdrawn or cancelled by Institution conferred, if applicant is convicted of an indictable offence or any other offence which renders him unfit to practise.</p>

Continued next page

Table G.7 (continued)

<i>Practitioner</i>	<i>Key Institutions</i>	<i>Requirements</i>	<i>Processes</i>
Australian Capital Territory			
Builder Electrician Drainer Plumber Gasfitter	ACT Planning and Land Authority.	Application must demonstrate applicant satisfies eligibility criteria prescribed in law, including qualifications and experience.	Applicant applies to Authority. Authority determines application and grants licence or refuse to grant licence.
Building surveyor Plumbing plan certifier	ACT Planning and Land Authority.	Application must demonstrate applicant satisfies eligibility criteria prescribed in law, including insurance, qualifications and experience.	Applicant applies to Authority. Authority determines application and grants licence or refuse to grant licence.

Table G.8 Accreditation and audit of certifiers

<i>Type of certifier</i>	<i>Key Institutions</i>	<i>Requirements</i>	<i>Processes</i>
New South Wales			
Building Surveyors Engineers Land Surveyors Town Planners	Department of Infrastructure Planning and Natural Resources (DIPNR). Institution of Engineers (Australia). Professional Surveyors Occupational Association. Planning Institute of Australia.	Professional Associations authorised by the Minister as accreditation bodies responsible for accreditation and investigation of complaints against accredited private certifiers. DIPNR audits activities of all accredited certifiers. Accreditation dependent upon qualifications, experience, PI insurance and continuing professional development (CPD).	Accreditation schemes for each accreditation body establish process for accreditation. Accreditation requires annual renewal through written application including a list of certificates issued in last year, insurance details, CPD and fee. Assessment of application undertaken by accreditation body may involve interview or written exam. Where a complaint investigation or audit provides evidence of unsatisfactory professional conduct certifier may be cautioned or reprimanded or an action taken in the Administrative Decisions Tribunal to seek a financial penalty and suspension or removal of accreditation.
Victoria			
Building Surveyor	Building Commission.	See practitioner requirements.	The Building Commission has the authority to investigate and audit building practitioners, and take necessary action. The investigations process is usually through a complaint basis. See practitioner requirements.
Building Inspector	Building Commission.	As Above	As above.

Continued next page

Table G.8 (continued)

<i>Type of certifier</i>	<i>Key Institutions</i>	<i>Requirements</i>	<i>Processes</i>
Queensland			
Building Services Authority	Ensure building certifiers are audited on a regular basis.	Audit Technical and procedures.	Random.
Australian Institute of Building Surveyors (AIBS)		Level of accreditation to reflect the level of education.	Determined by AIBS, education and experience as to the level of accreditation granted.
South Australia			
Private certifier	Building Advisory Committee (BAC).	Registration – requires accreditation as building surveyor, 8 years experience in industry and necessary professional indemnity insurance.	Apply to BAC with evidence of meeting requirements and pay fee.
All certifiers	Minister of Urban Planning & Development.	Complaints investigation provisions in Development Act.	Lodge complaint, investigation undertaken, with remedies/penalties able to be imposed.
Western Australia			
Building Surveyors	Department of Housing and Works Municipal Building Surveyors Qualifications Committee		
Tasmania			
Building Surveyor	Authorised Bodies appointed by the Minister.	In accordance with National Framework and Minister's <i>Guidelines for Schemes for the Accreditation of Building Practitioners in Tasmania.</i>	In accordance with Guidelines and Scheme of Authorised Body.

Assistant Building Surveyor	Authorised Bodies appointed by the Minister.	In accordance with National Framework and Minister's <i>Guidelines for Schemes for the Accreditation of Building Practitioners in Tasmania.</i>	In accordance with Guidelines and Scheme of Authorised Body.
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Northern Territory

Certifying building practitioners Certifying Engineers Certifying Architects Building Surveyors Certifying Plumbers and Drainers	Director Building Control.	Ensures compliance with the NT <i>Building Act 1993</i> and Regulations.	
	Building Advisory Services Branch, Department of Infrastructure, Planning and Environment.	Technical expertise to conduct 5% desk-top audits of documentation submitted by PBC to ensure compliance with Act and Regulations.	
	Building Practitioners Board.	Determines qualifications held by building practitioners and courses of instruction to be undertaken from time to time; Registers persons as building practitioners; and Monitors performance of practitioners.	
	Local Court.	Appeals body.	Practitioner may appeal with 28 days of a decision of the Building Practitioners Board.

Continued next page

Table G.8 (continued)

<i>Type of certifier</i>	<i>Key Institutions</i>	<i>Requirements</i>	<i>Processes</i>
Australian Capital Territory			
General building surveyor (limited to certain small and medium-scale developments)	ACT Planning and Land Authority.	See licensing above. Licence eligibility relies on demonstrating relevant AIBS accreditation at assistant building surveyor level. Authority audits a percentage of all certifier's paperwork.	Nominally, 10 per cent of a certifier's number of projects receive a paperwork audit for compliances with law requirements, by the Authority. May lead to occasional building site audit or certifier's office audit.
Principle building surveyor (not limited in scope of project)	ACT Planning and Land Authority.	See licensing above. Licence eligibility relies on demonstrating relevant AIBS accreditation at building surveyor level. Authority audits a percentage of all certifier's paperwork.	Nominally, 10 per cent of a certifier's number of projects receive a paperwork audit for compliances with law requirements, by the Authority. May lead to occasional building site audit or certifier's office audit.

Table G.9 Insurance (home building warranty, professional indemnity etc)

<i>Type of insurance</i>	<i>Key Institutions</i>	<i>Responsibilities</i>	<i>Processes</i>
New South Wales			
Professional Indemnity	DIPNR, insurance companies.	Accredited certifiers required to maintain a minimum of \$1 million PI insurance. Liability for certification work extends for 10 years.	Proof of insurance required to be submitted to accreditation body with application for initial accreditation, application for annual reaccreditation and where there is a change in insurance details.
Home Warranty	Minister for Commerce.	Approval of insurers and the kind of insurance.	As provided by the <i>Home Building Act 1989</i> (Sections 103A, 103AA & 103AB).
	Office of Fair Trading – Home Building Service.	Administers the insurance and licensing provisions of the <i>Home Building Act 1989</i> .	Builder must show eligibility for home warranty insurance in order to obtain a licence for building work requiring insurance (ie residential building work valued at over \$12,000 but excluding high-rise). The builder must obtain a Certificate of Insurance prior to commencing work and prior to receiving any payment under the contract. Owner-builders must obtain insurance if the property is sold within 6 years of completion of the building work. Compliance with the home warranty insurance provisions is a standard condition attached to any development consent under the <i>Environmental Planning and Assessment Act 1979</i> for residential building work (excluding high-rise).

Continued next page

Table G.9 (continued)

<i>Type of insurance</i>	<i>Key Institutions</i>	<i>Responsibilities</i>	<i>Processes</i>
	Private sector insurance providers.	Determine applications for insurance and claims.	Required to provide a system of 'last resort' insurance cover in the event of the death, disappearance or insolvency of the builder. Cover to be for a minimum of \$200,000 and provide for losses caused by: <ul style="list-style-type: none"> ▪ Structural defects for a period of six years from completion of the work; ▪ Non-structural defects for two years from completion of the work; ▪ Incomplete work (for an amount up to 20% of the contract price with a \$200,000 limit) for a period of 12 months after failure to commence, or cessation of, the work.
	Interim NSW Home Warranty Insurance Scheme Board.	Oversee the implementation of recommendations of the report of the <i>Inquiry into the NSW Home Warranty Scheme</i> .	Monitor the operation of the home warranty insurance scheme and provide advice to the Minister on matters affecting the operation of the scheme. Develop an industry deed, amended conditions of approval, market practice guidelines, claims handling procedures and data reporting/exchange protocols.
Victoria			
Home Building Warranty, Professional indemnity, Structural Indemnity	Minister for Planning. Building Commission.	To determine the appropriate insurance required for the registration of Building Practitioners. To provide recommendations to the Minister of the appropriate insurance.	<i>Building Act 1993</i> , Building Regulation 1994, Ministerial Order.

Note this is tied into the registration process and we refer you to our web site (www.buildingcommission.com.au).

Queensland

Building Contractor	Building Services Authority.	<i>Building Services Authority Act 1991.</i>	Payment of premium prior to issuing approval by the Private Certifier (warranty type insurances).
Private certifier	Building Services Authority.	<i>Integrated Planning Act 1997.</i>	<ol style="list-style-type: none">1. Evidence of the of premium at time of annual renewal, required as a condition of licensing under <i>Integrated Planning Act 1997</i>; and2. The Private Certifier must site BSA insurance premium prior to issuing of approval <i>Integrated Planning Act 1997</i>.

South Australia

Building indemnity insurance	Building work Contractors Act and Development Regulations.	Person undertaking Building Rules assessment must sight certificate of building indemnity insurance.	Certificate of building indemnity insurance for domestic building work to be submitted with application.
Professional indemnity insurance	Development Act and Regulations.	Private certifiers must have current PI cover for registration.	Submit copy of certificate with application for renewal of registration.

Western Australia

Home Indemnity Insurance	Builders Registration Board. Department of Consumer and Employment Protection. Local Government Authorities.	Builder must provide insurance for prescribed class of building. Local Authority cannot issue building licence without evidence of insurance.
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Table G.9 (continued)

<i>Type of insurance</i>	<i>Key Institutions</i>	<i>Responsibilities</i>	<i>Processes</i>
Tasmania			
Building Surveyors – Professional Indemnity (PI)	Authorised Bodies appointed by the Minister.	All building practitioners required to have insurance before granted accreditation.	In accordance with <i>Ministerial Order for Required Insurance for Building Practitioners and Building Act 2000</i> .
Assistant Building Surveyors – PI			
Engineers – PI			
Building Service Designers – PI			
Architects – PI			
Building Designers – Architectural – PI or Housing Indemnity			
Builder – Commercial – Defects and Public Liability (PL)			
Builder – Domestic – Defects or Housing Indemnity and PL			
Builder – Fire Protection Services – PI			
Builder – Demolisher – PL			
Builder – Construction Manager – PI and Housing Indemnity			

Northern Territory

Professional Indemnity Insurance	Various private providers.	Must meet various levels of indemnity as stated in Regulations.	Certifying Plumbers and Drainers who are unable to obtain PI insurance are required to contribute to the Home Building Certification Fund (see below).
Home Building Certification Fund	Owned by Northern Territory Government, managed by Territory Insurance Office (TIO). Building Advisory Services Branch, Department of Infrastructure, Planning and Environment.	This fund provides 10 year first resort cover to the building owner and successor/s in title for matters of non-compliance found after the completion of the building work. Cover is from issue of Occupancy Permit. Provides TIO with technical expertise and support and assesses whether claims are valid under the terms of the fund.	Builder pays a premium into fund (A). Amount depends on value of building work being covered. Building owner also pays a premium into fund (B) for the same project. Owner/Builders pay into fund (A) and (B). Certifying Plumbers and Drainers pay into fund (A). Claim is submitted to the TIO by claimant. TIO forwards details of claim to Building Advisory Services for verification of claim status. TIO processes claim and correspondence with claimant.

Australian Capital Territory

Building warranty insurance	Private sector insurance providers.	Provide coverage that complies with building law.	Builder applies to insurer, insurer's agent or insurance broker. Is a statutory prerequisite to a building work commencement notice (either insurance or a fidelity fund certificate).
Fidelity fund certificate (is not 'insurance' but provides similar coverage).	Fidelity fund schemes.	Provide coverage that complies with building law.	Builder applies to scheme or scheme's agent. Is a statutory prerequisite to a building work commencement notice (either insurance or a fidelity fund certificate).

Continued next page

Table G.9 (continued)

<i>Type of insurance</i>	<i>Key Institutions</i>	<i>Responsibilities</i>	<i>Processes</i>
Professional indemnity	Private sector insurance providers.	Provide coverage that complies with construction law.	Building surveyor applies to insurer, insurer's agent or insurance broker. PI insurance is an eligibility criteria for licensing.
Building warranty insurance	ACT Planning and Land Authority.	Approve insurer and monitor certain aspects of operation.	Insurer applies to Authority. Approved insurer require to periodically report to Authority operational statistics.
Fidelity fund certificate (is not 'insurance' but provides similar coverage)	ACT Planning and Land Authority.	Approve fidelity fund scheme and monitor certain aspects of operation.	Scheme applies to Authority. Approved scheme require to periodically report to Authority operational statistics.

Table G.10 Dispute resolution

<i>Type of dispute</i>	<i>Key Institutions</i>	<i>Responsibilities</i>	<i>Processes</i>
New South Wales			
Complaints against accredited certifiers	Accreditation bodies responsible for accreditation of certifiers (DIPNR, PIA, PSOA, IEAUST).	Responsibility to assess complaints against accredited certifiers in accordance with requirements of Environmental Planning and Assessment Act and relevant accreditation scheme to determine whether unsatisfactory professional conduct. Where a matter is pursued through the Administrative Decisions Tribunal (ADT) compensation may be granted to the complainant.	Complaints supported by a statutory declaration may be made to relevant accreditation body. Accreditation body must investigate and determine whether unsatisfactory professional conduct. Where proven certifier may be reprimanded or action taken in ADT for fines and possible compensation.
Appeals	Land and Environment Court.	Consider appeals on determinations by consent authorities, and issue of orders by relevant authorities.	
Objections	NSW Fire Brigades.	Can consider objections against certain fire safety provisions under the BCA.	Process rarely used as BCA is fully performance based and Alternative Solutions to the DTS Provisions can be developed and approved.
	Consent/certifying authorities.	Can consider objections against provisions of BCA.	Consent/certifying authority cannot allow objection without concurrence of Director-General of the Department of Infrastructure, Planning and Natural Resources. Process is rarely used as BCA is fully performance based and Alternative Solutions to the DTS Provisions can be developed and approved.

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Table G.10 (continued)

<i>Type of dispute</i>	<i>Key Institutions</i>	<i>Responsibilities</i>	<i>Processes</i>
Victoria			
Appeals on builder registration, enforcement of notices, protection of adjoining property	Building Appeals Board (BAB) established under the <i>Building Act 1993</i> .	Hears appeals with respect to building licences and enforcement notices, as per Building Regulations.	Forms available from Building Commission and on Building Commission web site.
Appeals on determination of Relevant Building Surveyor (RBS), decision of Local Council on siting issues for single house on single allotment	BAB established under the <i>Building Act 1993</i> .	Hears and determines appeals with respect to determination of RBS, siting issues and modifications of building regulations.	Applicant makes application to the BAB. Details available on the Building Commission web site.
Modifications of regulations			
Dispute on Building Work for domestic construction as a result of a dispute on site	Building Advice and Conciliation Victoria. This is an inter-departmental arrangement with Consumer Affairs Victoria (CAV), Building Commission, VCAT.	Provide advice on contractual issues, provide telephone-based conciliation, provide technical advice on disputes, undertake site inspection and report, and undertake site conciliation. The above processes are voluntary. Either party can elect to go direct to VCAT.	Initial point of resolution is to CAV through telephone, if not resolved then to BC for resolution of technical issue through on site report and conciliation. If that is not successful then to VCAT.
Queensland			
Appeal of decision	Department of Local Government, Planning, Sport and Recreation. Building and Development Tribunal.		Applicant can appeal decision to tribunal.

Defective and incomplete work	Dispute Resolution – Building Services Authority.	Core function of the Building Services Authority – Disputes Division (Building Contractor related). Ensure the requirements of defect resolution is met in accordance with <i>QBSA Act 1991</i> .	The investigation of Defective and Incomplete Building Work.
Consumer protection issues	Commercial and Consumer Tribunal.	<i>Commercial and Consumer Tribunal Act 2003</i> .	

South Australia

Alternative Solutions	Building Rules Assessment Commission.	Providing opinion from panel of experienced technical experts.	Independent review, non-binding.
Appeal against decision of certifier	Environment, Resource and Development Court.	Building Commissioners conduct hearing.	Apply to Court and pay relevant fees. Commissioners review and make judgement.

Western Australia

Appeals on building licences	Department of Housing and Works (DHW). Minister for Housing and Works.	Minister upholds or denies appeals against: <ul style="list-style-type: none"> • Conditions on building licence • Refusal to issue building licence 	DHW prepares information and briefing on appeals for the Minister. Minister determines whether or not to uphold appeal. Notices subject to dismissed appeals can be withdrawn or enforced by Local Government Authorities.
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Table G.10 (continued)

<i>Type of dispute</i>	<i>Key Institutions</i>	<i>Responsibilities</i>	<i>Processes</i>
Appeals on building notices	Department of Housing and Works. Minister for Housing and Works.	Minister upholds or denies appeals against: <ul style="list-style-type: none"> • Notice to comply with approved drawings • Notice to stop work • Notice to demolish or regularise unauthorised building • Notice to cease unauthorised use of building • Notice to demolish or rectify unsafe buildings 	DHW prepares information and briefing on appeals for the Minister. Minister determines whether or not to uphold appeal. Dismissed appeals can be withdrawn or enforced by Local Government Authorities.
Tasmania			
Building Practitioner Appeals	Authorised Bodies. Building Appeal Board (BAB). Magistrates Court (Administrative Appeal Division).	To review application decisions in relation to accreditation where requested by an aggrieved applicant. Hears appeals on accreditation, practitioner complaints, and decisions of Authorised Bodies. To review decisions of the BAB as above.	In accordance with the Authorised Scheme. In accordance with <i>Building Act 2000</i> (s26, s32, s40). In accordance with <i>Building Act 2000</i> (s46, s47).
Protection of Adjoining Property	BAB.	To hear and determine costs incurred by an adjoining owner where no agreement obtained with owner. To hear and determine compensation for loss and damage suffered by adjoining owner. To hear any differences arising between an owner and adjoining owner over protection work or party walls or structures.	In accordance with <i>Building Act 2000</i> (s136). In accordance with <i>Building Act 2000</i> (s137). In accordance with <i>Building Act 2000</i> (Part 9 Divisions 2 & 3).

Appeals or Disputes	Building Appeal Board.	To hear and determine appeals relating to: <ul style="list-style-type: none"> • Building, occupancy and temporary occupancy permits. • Orders. • Building Surveyors and Permit Authorities exercise of or failure to exercise any power. • Change of Building Surveyor. • Fire Regulations. • Decisions under Regulations. 	In accordance with <i>Building Act 2000</i> (Part 12). In accordance with Building Regulations 2004.
Applications for determination	Building Appeal Board.	To hear and determine whether any provision of BCA applies or may be modified.	In accordance with <i>Building Act 2000</i> (s218 and Division 3).

Northern Territory

Building Dispute	Local Court.	Normal Local Court jurisdiction in Civil matters.	Civil litigation processes
Contract Dispute	Local Court.	Normal Local Court jurisdiction in Civil matters.	Civil litigation processes.
Licensing Dispute (Plumbers and Drainers, Plumbing Contractors, Journeymen, Electricians, and Electrical Contractors)	Local Court.	Local Court is able to conduct a hearing into the grounds of the Board's decision; has all the powers, duties, functions of the Board in relation to the subject matter of the appeal; and shall determine the appeal by: <ul style="list-style-type: none"> • confirming the decision of the Board; • varying the decision of the Board; • disallowing the decision of the Board. 	A person may request a review of a decision made by the Plumbers and Drainers Licensing Board by the Local Court. A person aggrieved of a decision by the Electrical Workers and Contractors Licensing Board may appeal to the Local Court.

Continued next page

Table G.10 (continued)

<i>Type of dispute</i>	<i>Key Institutions</i>	<i>Responsibilities</i>	<i>Processes</i>
Registration Dispute (Building practitioners, Architects)	Local Court. Supreme Court.	As above.	A person aggrieved by an action of the Practitioners Board within 30 days after being notified of the action, may appeal to the Local Court. Decision of Local Court is final. Person aggrieved by an action of the NT Architects Board may appeal to the Supreme Court.
Australian Capital Territory			
Breach of consumer protection law	ACT Office of Fair Trading.	Administer consumer protection laws.	Public contacts Office for assistance. Office assists and makes referrals but does not formally mediate.
Breach of construction law	ACT Planning and Land Authority.	Administer construction laws.	Public may make complaint to Authority. Authority required to examine complaint and take compliance action where warranted. Authority may impose licence sanctions and / or issue enforceable rectification orders on delinquent licensees or former licensees, requiring substandard work to be brought into compliance. Authority may fix substandard work at delinquent party's cost if rectification order breached.

Appealable decision by ACT Government under ACT planning or construction law. Includes licensing, notices and development approvals	ACT Administrative Appeals Tribunal (ACTAAT), and from there the ACT Supreme Court.	ACTAAT: administer ACTAAT laws, reviews appealable decisions. ACT Supreme Court: administer ACT Supreme Court laws, reviews certain decisions of the ACTAAT.	Aggrieved party may lodge appeal or apply to court. ACTAAT and ACT Supreme court have power to remake decisions including affirming, varying, setting aside, and substituting decisions.
Appealable decision by Australian Government under Commonwealth planning law that has ACT jurisdiction.	Commonwealth Administrative Appeals Tribunal (Comm AAT), and from there the Federal Court.	Com AAT: administer Comm. AAT laws, reviews appealable decisions. Federal Court: administer Federal Court laws, reviews certain decisions of the Comm. AAT.	Aggrieved party may lodge appeal or apply to court. AAT and court have power to remake decisions including affirming, varying, setting aside, and substituting decisions.
Stop Work Notices	ACT Planning and Land Authority.	Administer relevant law.	Public may apply for cancellation of Stop Work Notice. Authority may cancel, or refuse to cancel, the notice.

H Insurance issues

Insurance arrangements are another mechanism by which good building outcomes can be promoted, the incidence of building faults can be reduced and redress can be provided for consumers in the case of faults or non-completion. All building practitioners, from design professionals to builders to certifiers, play a part in ensuring successful building outcomes and are potential candidates for insurance arrangements. Insurance requirements for the various practitioners currently differ across the States and Territories, although Home Builders Warranty Insurance (HBWI) and professional indemnity insurance are two key insurance products generally required.

Requiring certain practitioners to be insured can reduce the risk of consumers being left ‘out of pocket’ as a result of building defects and faults. As mentioned in chapter 3, building defects may not be revealed until some years after construction is completed and consumers may have little information (compared to a building practitioner) to help them make judgments about the standard of their building. The risk of financial loss to the consumer (especially in the residential building market), due to the substandard performance of those involved in the building process, can be high. Insurance also adds another incentive for practitioners to undertake their tasks professionally and competently¹ and their insurance status may be a useful signal to consumers as to their capabilities.

Insurance in the building industry has also been seen as an important complement to the wider liability reforms that have taken place in some jurisdictions, in particular, the introduction of private certification and proportionate liability. Requiring adequate insurance cover for practitioners ensures that they are able to meet their share of liability in the event of claims for damages.

HBWI is required in all States and Territories, and, in some cases (Queensland and the Northern Territory), the insurance is provided by a government body. Aimed at

¹ Although the provision of insurance creates moral hazard issues, where the insured party feels they do not need to take as much care because insurance will ‘foot the bill’, these can be reduced by the design of insurance products (for example, by requiring an excess) and careful use of eligibility criteria (for example, looking at a practitioner’s reputation and history). Further, establishing a feedback loop so that higher claims and higher risk leads to higher premiums can give a clear signal to the insured party about the consequences of their actions.

consumer protection, this cover provides a guarantee that the building work will be completed and that it will be constructed without fault. It is generally ‘last resort’ insurance, which only covers claims where non-completion or fault occurs and the builder is unavailable through death, disappearance or insolvency. If the builder is still trading, the consumer must pursue the builder through other avenues, mainly through the courts for breach of contract. However, some jurisdictions offer more comprehensive insurance — for example, under the Queensland scheme, insurance remedies are available to consumers regardless of the status of the builder (see box H.1 for a discussion of the Queensland scheme).

Box H.1 Home builders’ warranty insurance in Queensland

HBWI in Queensland is administered by the Building Services Authority (BSA). The BSA regulates the building industry and, in addition to warranty insurance, has overall responsibility for licensing and dispute management. Builders fulfilling the licensing requirements of the BSA automatically qualify for insurance cover with the BSA and, while builders need to provide proof of their financial capacity to trade, they do not need to provide a financial guarantee or pledge assets.

The cost of insurance premiums in Queensland is currently set out in the *Queensland Building Services Authority Regulation 2003*. Any proposed premium increases are subject to regulatory impact requirements and scrutiny by an industry board. Premiums are currently capped at \$1280.

To access cover under the scheme, the consumer need only have contracted with a person holding the appropriate licence (or holding themselves out as having such a licence). The scheme also provides ‘no-fault’ cover in the event of defective work, where the defects cannot be attributed to a particular contractor.

Sources: Australian Consumers’ Association 2004b; BSA, pers. comm., 5 October 2004.

The content of HBWI — for example, the length of the cover, the minimum value of work requiring insurance and the minimum value of coverage required — is regulated. However, the supply and pricing of the insurance are unregulated in most jurisdictions. One notable feature of the HBWI market is that:

... HBWI is taken out by a different identity (the builder) to the beneficiary (the homebuyer). Hence, the consumer has no choice over which policy is chosen. In most cases it is not until they make a claim that the true nature of the insurance becomes apparent to them (Allan 2002, p. 10)

HBWI is a contentious area and has been the subject of 20 reports or reviews in the last ten years (sub. 39, p. 2). A 2002 report for the Ministerial Council on Consumer Affairs detailed the grievances of builders, consumers and insurers:

Many builders complain they cannot get insurance or if they do it is insufficient to support their business turnover. Private insurers are skittish and recently threatened to

withdraw from the market if governments did not scale back mandatory insurance requirements. Consumers are realising insurance either does not exist (for example, high rise apartments) or is cold comfort since claims are only recognised if their builder has died or gone out of business. (Allan 2002, p. vii)

Professional indemnity insurance covers practitioners for claims made against them, primarily of professional negligence. Within the building industry, this insurance is often a condition of licensing for professions such as certifiers, architects, engineers and designers, among others. However, there can be exceptions, for example, in Queensland, practitioners who can demonstrate that it is not financially viable to obtain professional indemnity insurance, may apply for an exemption (sub. 41, part 2, p. 15).

Builders are generally not required to hold professional indemnity insurance. However, in some jurisdictions, some categories of builder not covered by HBWI requirements may be required to take out a form of builders indemnity insurance. For example, in Victoria the practitioner category ‘commercial builder (unlimited)’ is required to take out builders indemnity/structural defects insurance.² For builders who wish to voluntarily take out additional insurance, some insurers offer products tailored to various types of builder (such as small residential builders).

There are three key issues related to insurance in the building industry:

- the cost and availability of insurance and the impact this has on the industry
- the role insurance is playing in providing incentives for good building outcomes
- the degree of consumer redress that is being provided by current insurance requirements.

These issues are discussed in turn below.

Cost and availability of insurance

A number of interested parties expressed concern with the level of availability of insurance (both HBWI and professional indemnity) and its cost in some jurisdictions. Difficulties with obtaining insurance at an affordable price was seen as a contributing factor to firm closures and incidences of practitioners working without insurance cover. (Of course, the concerns of the building industry must be seen in the broader context of insurance cost and availability issues in Australia in recent years, particularly in the aftermath of the collapse of HIH Insurance. Many

² See <http://www.buildingcommission.com.au/www/default.asp?casid=3896> (accessed 2 July 2004).

groups have found it difficult to access affordable and suitable insurance products, with premiums, exclusions and conditions increasing.)

The Builders' Collective of Australia submitted that issues with the availability of HBWI may force some small to medium builders out of business (sub. 39, p. 2). The Collective noted that the Building Designers Association of NSW believed the HBWI scheme encourages incompetent builders 'to enter into illegal covert arrangements with owner-builders [who are exempt from HBWI]' (sub. 39, p. 3). The Collective also noted these issues can extend beyond small builders:

The Victorian Government also in May 2003 saw fit to exclude themselves from the warranty scheme due to their inability to access builders with the relevant insurance cover for their own projects. (sub. 39, p. 6)

Additionally, in Western Australia:

A common complaint ... is that insurers are placing too many restrictions on builders' turnover, thereby impeding the natural growth of the company. This has the potential to create an anti-competitive market for builders. (Lilley, Nigel – Builders' Registration Board of WA, sub. 40, p. 4)

In NSW, there are claims that only 40 per cent of licensed builders have eligibility for home warranty insurance (Harley 2004a). Insurers apply financial tests to establish eligibility for insurance — projects underwritten must be backed up by either sufficient capital from the builder or a bank guarantee or pledge. The Australian Consumers' Association (2004a) commented that privately run warranty schemes seem to primarily benefit insurers and larger building companies at the expense of consumers and smaller builders:

Under this 'last resort' scheme, insurers carry very little risk, as all projects they underwrite are backed up by capital from the builder — and it's harder for a small builder to provide this.

Builders recently rallied outside the NSW Parliament, calling for changes to the system, with some suggesting either a voluntary system, no warranty at all, or a system similar to the Queensland government-run scheme (Harley 2004b).

With respect to professional indemnity insurance, the HIA noted that '[m]andatory insurance requirements will be of little benefit to clients if practitioners cannot gain insurance cover and such an outcome will simply lead to a deficiency of practitioners' (sub. 6, p. 40).

In discussing the consulting engineering profession, Charles (2003, pp. 2–3) remarked on the escalation of insurance costs:

Ours is an industry where the average cost on an annual PI insurance policy (if you can get one) now exceeds \$70,000, where the cost of a PI policy has, on average, increased by over 300% in the last two years, and policy excesses have increased by over 240%.

... Almost half of our firms have been unable to pass the full cost of PI insurance on to the market. Of these, almost 30% have had to absorb the entire PI cost increases.

... as PI costs continue to escalate, and exclusions increase, the bottom line profits and commercial viability of many firms are increasingly marginalised to a point where some of them will eventually close, amalgamate with other firms, or work uninsured.

Interested parties offered some suggestions as to why the cost and availability of insurance had deteriorated. For example, the Airconditioning and Mechanical Contractors Association (AMCA) of Victoria pointed to the allocation of risk, noting that head contractors are taking steps to 'shift a large portion of the project insurance responsibility onto the specialist trade subcontractors' (sub. 16, p. 7). This was also noted by Charles (2003, p. 5):

The way in which some private and public sector clients shift most or all risk and liability on to consulting engineers and subcontractors is of concern to ACEA ...

Whereas, on the one hand, insurers are carefully choosing to provide PI cover on the basis of least exposure to liability, some clients, on the other, are intent on placing all risk squarely on the shoulders of consultants and subcontractors. ... some levels of risk being demanded by clients are both impractical and uninsurable.

Inappropriate risk classification was also raised as a potential problem. Charles (2003, p. 8) commented that insurers' sometimes limited knowledge of the building industry may be contributing to increased costs:

Insurers need to understand that their PI cover for most engineering professionals is not a high risk gamble.

AMCA also commented that insurance requirements for work in the domestic sector need to be differentiated from those for work in the commercial sector (reflecting the different risks posed by each sector) (sub. 16, pp. 6–7).

A mismatch between the levels of compliance expected by the legal system (in civil liability cases) versus the building regulatory system was also raised as a problem. MBA felt the tendency for the legal system to seek compliance at all stages of a project, as compared with the current legislative requirements to check compliance at various structural stages, was impacting on the cost and availability of professional indemnity insurance (sub. 24, p. 12).

On the other hand, the Insurance Council of Australia (ICA) asserted that liability arrangements had been onerous on insurers:

... The requirements were the inclusion of all building professions, a ten-year run-off provision, limitation of excesses and inability to alter the wording to address emerging exposures.

From 2002 the professional liability market sought to address these requirements. ...

The result was changes to the legislation in all States and Territories to remove the requirement for a ten-year run-off provision, limitation on excesses and allowing insurers to amend the wording to address emerging exposures, for example asbestosis. (sub. 38, pp. 14–15)

The ICA submitted that the industry was prepared to provide coverage, but only if it can be done profitably:

... It must be understood that if this market segment cannot be profitably underwritten and at the same time ensuring premium and coverage is affordable and reasonable to the insured, insurers may not participate. (sub. 38, p. 15)

Insurance and incentives

Also of interest is whether the current mandatory insurance requirements provide appropriate incentives to reduce building faults and promote good building outcomes for consumers (see box H.2 for a general discussion of the role of insurance in providing incentives).

A last resort HBWI system clearly does not provide robust incentives to builders to ensure fault-free construction. As the insurance only ‘kicks in’ when the builder is dead, insolvent or has disappeared, there are more limited (or no) feedback loops from the builder’s behaviour to the premium that they pay. Schemes that allow consumers to seek redress while the builder is still in operation are preferable, therefore, from the perspective of providing behavioural incentives. However, the HIA suggested HBWI underwriting requirements may indirectly contribute to better building outcomes, by favouring those builders with financially strong and durable businesses that are better able to meet the needs of clients and build a better home (sub. DR85, p. 11).

Professional indemnity and builders indemnity insurance can provide more influence over practitioner behaviour. As claims are not restricted to situations where the practitioner is no longer available, the practitioner will feel the effects of any adverse event or higher risk through the premium they pay. However, this can be muted in some instances. For example, while private certifiers may be required to hold professional indemnity insurance, local government certifiers are generally covered by council-wide risk management policies and insurance, thereby limiting any insurance incentives for them to undertake their duties with care.

Box H.2 Insurance and incentives

Insurance essentially works by providing incentives and signals. Insurers offer cover for a particular event (for example, a negligence claim) in exchange for a premium. Premiums generally reflect risk (that is, the probability and the consequences of the adverse event) in order to send a clear signal to the insured party about the costs of that event. A higher risk of claims equals a higher premium. In addition, when the probability of loss depends on the actions of the insured party, insurers usually offer only partial insurance, so that the insured party bears some of the costs of claims. Together, these features provide incentives to the insured party to take care and attempt to avoid occurrences of the adverse event.

The incentives and signals sent by insurance are blunted to some extent by the way insurance markets operate. Insurers manage the risks they take on by pooling them — grouping together firms or individuals who present the *same* risks and offering premiums based on that group risk. While not every member of the group will have the same claims experience over the year, all of them will share the costs of meeting any claims from within the group. This reduces the link between the insured's behaviour and their premium, and so can reduce the incentive to take care. Similarly, if an insurer cross subsidises across *different* levels of risk, this can also blunt incentives.

Premiums, therefore, reflect a balance between signalling risks and providing incentives, and maintaining the benefits of risk pooling for insurers. Some common elements of premium setting are:

- a predictor of the cost of claims (for example, turnover or work done)
- risk ratings, including the risk of the industry class and the experience of the individual firm
- bonuses and penalties
- upfront discounts for 'good behaviour'
- excesses.

Of these elements, risk ratings are a particularly important part of premium setting. The industry class can provide a broad indication of the risk of adverse events occurring and can help to differentiate premiums across different risks. For example, residential building may present a different risk to that of commercial building, and attract a different risk rating and premium. The experience rating then sharpens the analysis by looking at the risk profile of the individual firm, in terms of its recent claims experience.

The more information available about a firm, the more emphasis is able to be put on its own experience. Experience ratings are generally more difficult to undertake for small firms, due to the lower level of information. This means small firms often pay a premium based on industry risk, which blunts the link between their behaviour and the premium they pay, and can reduce the incentive to take action to reduce risk. This may be a key consideration in the building industry, which has a small average firm size.

Source: See PC 2004a, pp. 288–304 for a discussion of premium setting.

Consumer redress

It is not clear how successful current insurance arrangements are at providing consumer redress in the case of faults or non-completion.

Allan (2002, p. 115) noted that defect claims under HBWI were medium to very high in NSW, Victoria, Queensland and Tasmania over the period 1996-97 to 1999-2000. For example, over this period, Queensland recorded 6403 claims, resulting in claim payments totalling \$47.3 million (BSA, pers. comm., 5 October 2004). Queensland's BSA further noted that the level of claims and the approval of such claims has grown since the 1999-00 financial year (BSA, pers. comm., 5 October 2004).

However, the Builders' Collective of Australia submitted that, in their experience:

... these three circumstances [death, insolvency, disappearance] also have conditions applied to the extent that not one claim against this insurance has been satisfied ... (sub. 39, p. 6)

More generally, the Australian Consumers' Association (2004b) observed that the last resort aspect of warranty insurance existing in most jurisdictions 'makes a mockery of consumer protection':

... many consumers are essentially uninsured against what they think they're insured against — incomplete or shoddy work — because of the 'last resort' clause.

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