Australian Government
Productivity Commission

PC update

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Australian Government
Productivity Commission

The Productivity Commission is the Australian Government's independent research and advisory body on a range of economic, social and environmental issues affecting the welfare of Australians

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Staff Working Paper

Major Project Development Assessment Processes
Draft Report

Geographic Labour Mobility
Issues Paper

Import of Processed Tomato Products
Issues Paper

Import of Processed Fruit Products
Issues Paper

Regulator Engagement with Small Business
Draft Research Report

Electricity Network Regulatory Frameworks
Inquiry Report

Trade and Assistance Review 2011-12

Deep and Persistent Disadvantage in Australia
Staff Working Paper

2013 PC Productivity Update

Staff Research Notes (website only)
On Productivity: The Influence of Natural Resource Inputs
On Sustainability: An Economic Approach
On Efficiency and Effectiveness: Some Definitions

All publications can be downloaded from the Commission's website www.pc.gov.au

Productivity Commission News

New commissioned projects

Access to justice

The Australian Government has asked the Commission to undertake a 15-month inquiry into Australia's system of civil dispute resolution, with a focus on constraining costs and promoting access to justice and equality before the law. Factors the Commission has been asked to examine include: the real costs of legal representation and trends over time; factors that contribute to the cost of legal representation in Australia; whether the costs charged for accessing justice services and for legal representation are generally proportionate to the issues in dispute; the impact of the costs of accessing justice services; and the economic and social impact of the costs of accessing justice services.

Safeguard inquiries – processed fruit and tomatoes

The Productivity Commission has been requested to undertake separate safeguard inquiries into the impact of imports of processed fruit and tomatoes on Australian producers.

Under the WTO Safeguards Agreement, member countries can investigate whether safeguard measures are justified in response to unexpected and unforeseen increases in imports which are causing or threatening to cause serious injury to the domestic industry. As well as investigating whether there are grounds for safeguard measures, the Australian Government has also asked the Commission to provide an accelerated report examining whether critical circumstances exist to justify provisional safeguard measures.

Geographic labour mobility

The Commission is currently undertaking a commissioned research study assessing geographic labour mobility within Australia and its role in a well-functioning labour market. The study will examine patterns of mobility, impediments and enablers, and their effect on the ability to meet Australia's continually changing workforce and employment needs.

> More details including contact information and key dates for all current Commission projects appear on page 28 and are available at **www.pc.gov.au**

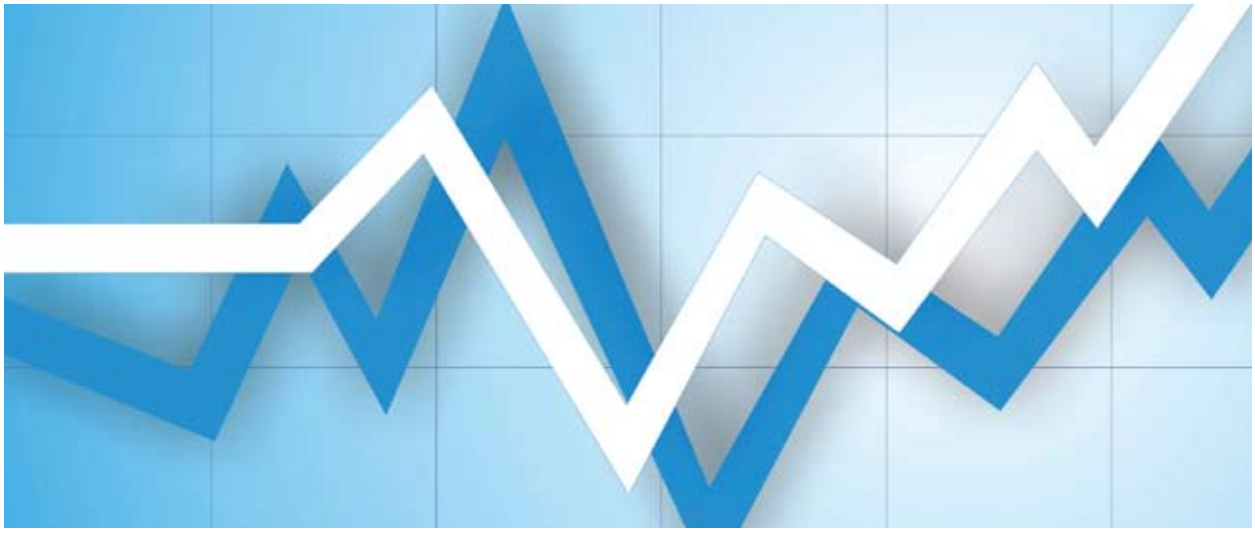
Ntaria consultations

In June 2013, Commissioner Patricia Scott and Assistant Commissioner Lawrence McDonald travelled to Ntaria in the Northern Territory with Brian Gleeson, the Coordinator General for Remote Indingeous Services. The visit was part of wide-ranging consultations on the *Overcoming Indigenous Disadvantage* report and *Indigenous Expenditure Report*. The Indigenous community Ntaria (formerly known as Hermannsburg) is located 124 km south-west of Alice Springs in Central Australia.

Right: Brian Gleeson and Patricia Scott at Ntaria.

Australia's productivity performance

What is productivity growth? A new Commission publication aims to demystify this commonly used but often misunderstood concept, to better assess Australia's recent productivity performance.



Productivity growth is a significant determinant of real per capita income growth and overall living standards. Yet its measurement and interpretation are often misunderstood. A new Commission publication, *PC Productivity Update*, unpacks the concept of productivity, and examines the factors driving Australia's recent productivity performance.

What is productivity?

Productivity is essentially a measure of how much output producers obtain from a unit of input. It is a measure of the 'efficiency' of production – productivity increases when producers use a lower quantity of inputs to produce a unit of output, or generate a larger volume of output from a given bundle of inputs.

Three estimates of productivity are produced annually by the Australian Bureau of Statistics (ABS):

- labour productivity (LP) – measured as output per unit of labour input (hours worked)
- capital productivity (KP) – measured as output per unit of capital input
- multifactor productivity (MFP) – measured as output per unit of combined inputs of capital and labour.

Both LP and KP are regarded as partial productivity measures, as they only consider the relationship between output and a single input. In contrast, MFP is a more comprehensive measure of productive efficiency, and is most commonly used in rigorous productivity analysis.

The ABS estimates of MFP are confined to the 'market sector' of the economy. Estimates for two versions of the market sector are produced – a 12 industry version, which accounts for around 68 per cent of aggregate output, and a 16 industry version, which accounts for around 83 per cent of output.

The non-market sector comprises the (largely government-provided) service areas of health, education and training, and public administration and security. MFP estimates can not be produced for these industries mainly because of lack of data. On the other hand, estimates of LP are available for all industries and for the economy as a whole. And unlike MFP, levels of LP can be compared between countries and industries, and are often used for this purpose.

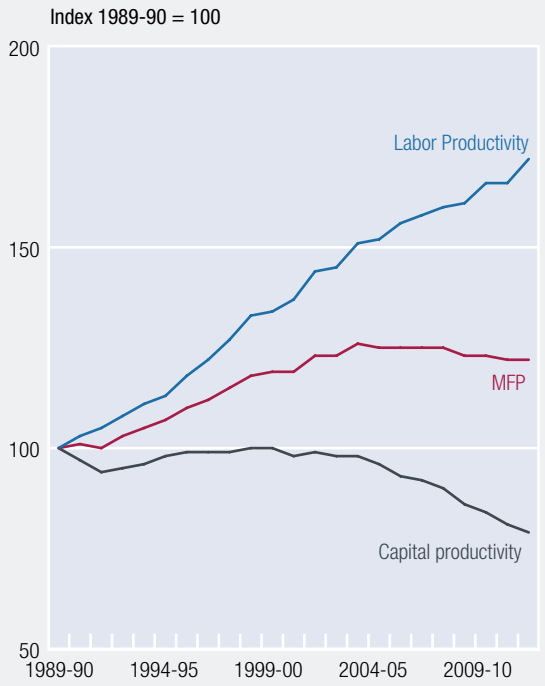
What determines productivity growth?

At one level, a nation's productivity growth rate simply reflects the rate of growth of outputs relative to inputs (the 'proximate' causes). But what drives changes in the proximate causes, and to productivity, is highly complex. There are many factors and interrelationships at play. The Commission has developed a three-tier framework for analysing the determinants of productivity: immediate causes; underlying factors; and fundamental influences.

Immediate causes of productivity growth

Immediate causes are those which have close and tangible links to input/output relationships in production.

Figure 1: ABS productivity estimates,[a] 1989-09 to 2011-12



[a] These data refer to the Market Sector (12 industry version).
Data source: ABS (*Estimates of Industry Multifactor Productivity, 2011-12*, Cat. no. 5260.0.55.002, December 2012).

They include:

- technological advances
- firm organisation, management practices and work arrangements
- economies of scale and scope, and gains from specialisation
- better resource allocation both within firms and between firms
- patterns of plant/business turnover within industries – for example, the entry of innovative 'greenfields' plants, the expansion of leading businesses and the exit of unproductive plants or businesses.

Underlying factors and more fundamental influences

Underlying factors affect the extent to which the immediate causes of productivity growth come into play. They include competition, openness of the economy to trade and investment, and demand and supply conditions. There are also fundamental influences such as resource endowments, demography, geography, institutional frameworks, and culture, which set the general 'environmental' conditions that can affect productivity, especially over the long term.

Productivity growth and policy

Just as there is no single driver of productivity growth, there is no single productivity policy lever. An increase in overall productivity ultimately depends on the performance of individual businesses. How well they improve their productivity can be influenced by policies in three areas:

- *Incentives* – the underlying external pressures and disciplines on organisations to produce efficiently. Market competition is crucial in encouraging cost reductions and product and process improvements, including through higher rates of innovation and diffusion. Entry and exit barriers should be as low as possible.
- *Flexibility* – the ability of firms to respond effectively and efficiently to market pressures. Excessive regulation can reduce an organisation's adaptability or responsiveness, or burden it with unnecessary costs.
- *Capabilities* – fundamental drivers such as human and knowledge capital, as well as infrastructure and institutions, necessary for improving productivity.

Australia's productivity performance

Productivity developments 2011-12

MFP growth in Australia's market sector in 2011-12 was 0.1 per cent. This was an improvement on the previous year (–1.2 per cent), but it was well below the long term average of 0.8 per cent. Output growth was 3.2 per cent, which was the highest in four years, while input growth (3.1 per cent) was high in absolute terms but little changed from the previous year.

In contrast to the MFP results, LP growth was particularly strong in 2011-12 (3.4 per cent), and was a marked improvement on the previous year (0.3 per cent). The main driver was an increase in capital deepening (more capital inputs available per hour worked).

The low rate of aggregate MFP growth for the market sector as a whole during 2011-12 masks the fact that there was considerable diversity in MFP growth rates in individual industries. Some industries recorded strongly positive MFP growth in 2011-12, especially Agriculture, forestry and fishing, Wholesale trade, and Construction. On the other hand, the Mining and Utilities industries recorded strongly negative growth, as did the Information, media and telecommunications industry. MFP growth was also negative in the largest industry within the market sector, Financial and insurance services.

The variability in industry MFP performance suggests that industry-specific factors were the dominant influences on market sector productivity trends in 2011-12, rather than broader, economywide factors.

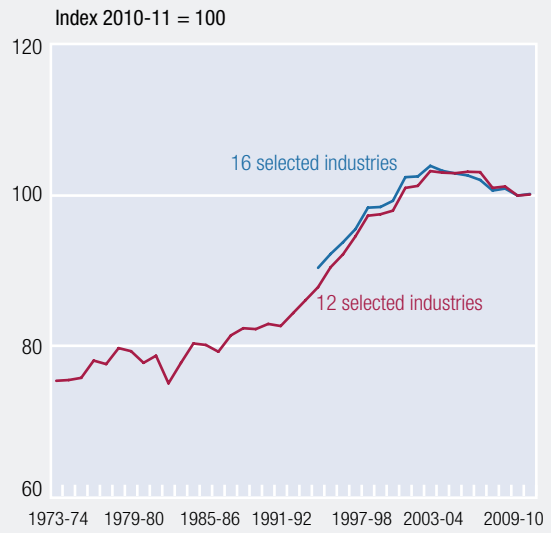
Long term decline in Australia's productivity growth

Since 2003-04, there have been eight consecutive years of negative or negligible MFP growth in the market sector. While variations in annual MFP growth have occurred in the past, the slowdown over the last eight years is particularly striking (figure 2). The average rate of growth in LP since 2003-04 has also been well below the longer term average, although there has been above average growth in two of the last four years.

The slowdown in market sector productivity since 2003-04 has been broadly based. All but two of the twelve industries measured by the ABS recorded lower MFP growth during the 2003-04 to 2007-08 productivity cycle compared with the previous cycle, with five industries recording negative MFP growth. During the 2007-08 to 2011-12 period, seven of the twelve industries recorded negative MFP growth.

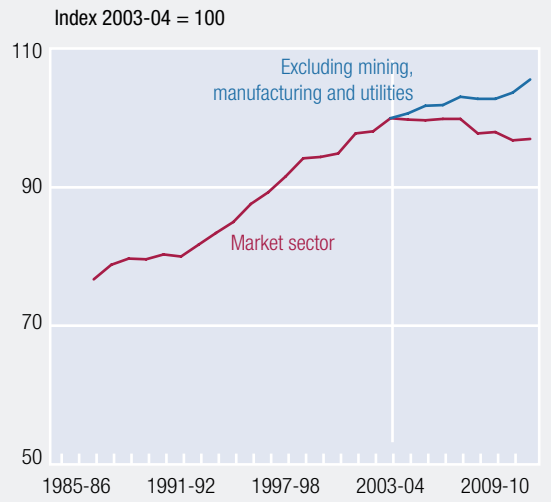
After allowing for the different size of each industry within the economy, three industries are found to have contributed most to the reduction over the last eight years: Mining, Manufacturing and Utilities. Offsetting these, Financial and insurance services made a strong positive contribution in the first four years, as did

Figure 2: Multifactor productivity in the market sector, 1973-74 to 2011-12



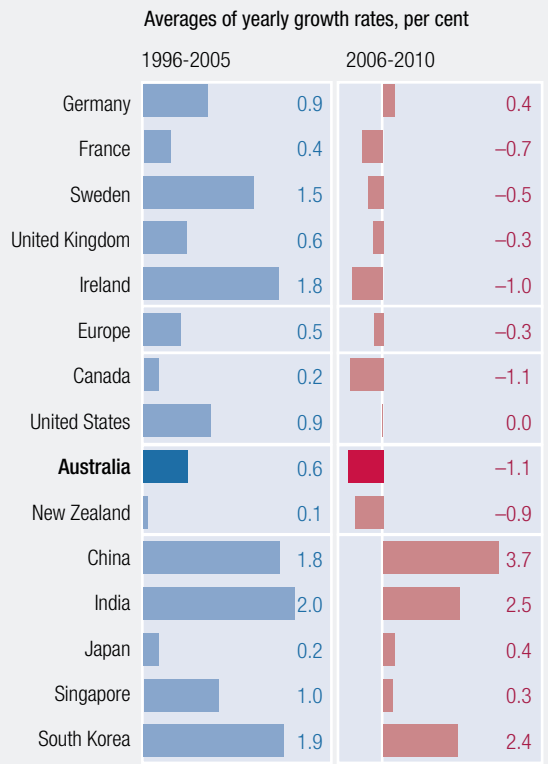
Data source: ABS (*Estimates of Industry Multifactor Productivity, 2011-12*, Cat. no. 5260.0.55.002, December 2012).

Figure 3: Market sector (12) MFP with and without selected industries, 1986-87 to 2011-12



Data source: Commission estimates based on ABS (*Estimates of Industry Multifactor Productivity, 2011-12*, Cat. no. 5260.0.55.002, December 2012); unpublished ABS estimates.

Figure 4: Multifactor productivity growth in selected countries and regions[a]



[a] The productivity estimates for Australia in this table may differ from ABS estimates due to methodological differences.

Data source: The Conference Board Total Economy Database™, January 2013, http://www.conference-board.org/data/economydatabase/.

Productivity growth has been affected by industry-specific factors

Recent Commission analysis has shed light on the industry-specific factors influencing market sector productivity trends in Australia.

Mining

- Capital expenditure in the mining sector has been at record levels in response to the recent boom in commodity prices, and measured input growth has run ahead of measured output growth.
- Additionally, mineral deposits being developed have become more input intensive because they are deeper underground or further offshore, more distant from existing infrastructure, or of lower quality. The new deposits are profitable as long as prices are high, but are less productive, on average, than previously mined deposits.

Utilities

- Massive capital expansion in the Utilities (electricity, gas and water) industry over the last decade has driven up input growth well ahead of output growth.
- As well, input use in the utilities industry has risen in order to achieve improved benefits to the environment, amenity, safety and the reliability of supply. Such benefits are not captured in the measured volume of industry output, and thus measured productivity is lower.
- Growing peak demand for power during the last decade has also lowered the overall efficiency of the electricity supply system.

Other industries

- Most other industries have also experienced a slowdown in productivity growth over the last eight years. Throughout this period, Australia has experienced severe droughts, floods, and other natural disasters, and global economic conditions have weakened. A high Australian dollar has also disadvantaged non-mining exporters and import-competing industries.
- The Manufacturing, and Finance and insurance services industries have had a particularly significant, but less well understood, impact on Australia's productivity growth rate. Slow or negative MFP growth in these industries during the last few years has been a major drag on the economywide result. The Commission is currently undertaking a program of research to better understand productivity trends in these two industries.

Agriculture, forestry and fishing in the second half. When the influences of Mining, Manufacturing and Utilities are removed, the average rate of MFP growth in the remaining industries is positive, although still lower than the longer term average for the market sector as a whole (figure 3).

Is Australia's productivity slowdown unique?

International data indicate that the slowdown in market sector MFP growth observed in Australia since 2003-04 has occurred in many other developed economies for which comparable data are available (figure 4). The widespread weakness in productivity has been attributed to weaker output growth, and to lower utilisation of capital and labour inputs as businesses refrained from making significant cutbacks in resources in the hope of a recovery in global demand.

PC Productivity Update

> Released May 2013

> *Future editions of PC Productivity Update will be published in the March quarter of each year. Each edition will unpack the latest ABS productivity statistics, and report on the findings of the Commission's most recent research into productivity issues.*

Electricity network regulation

A recent Commission inquiry examined regulatory arrangements for electricity networks in the National Electricity Market, and recommended a suite of coordinated reforms to improve regulatory effectiveness.

The electricity network – the wires, poles, easements, substations and other infrastructure used to transport power from generators to consumers – is subject to wide-reaching regulatory arrangements. Regulation is necessary to avoid the costs posed by the unfettered exercise of monopoly power.

However, in recent years, increases in network expenditure and the resultant flow on to increases in electricity prices for consumers have sounded alarms about the effectiveness of existing regulatory arrangements.

Nationwide, retail electricity price increases accelerated after June 2007, rising by more than 70 per cent in real terms by December 2012. The rising costs of the electricity network have been a major driver of these price increases. Network costs are around 40-50 per cent of an average household's electricity bill, so any cost pressures on the network have a major impact on consumers.

In January 2012, the Australian Government asked the Productivity Commission to undertake an inquiry into existing regulatory arrangements for electricity networks in the National Electricity Market (NEM).

The NEM enables the trading of power throughout Australia, excepting Western Australia and the Northern Territory. The electricity network within the NEM comprises some 800,000 kilometres of lines from Tasmania to Queensland.

After public consultation, including on a draft report, the Commission's final report was released by the Australian Government in June 2013.

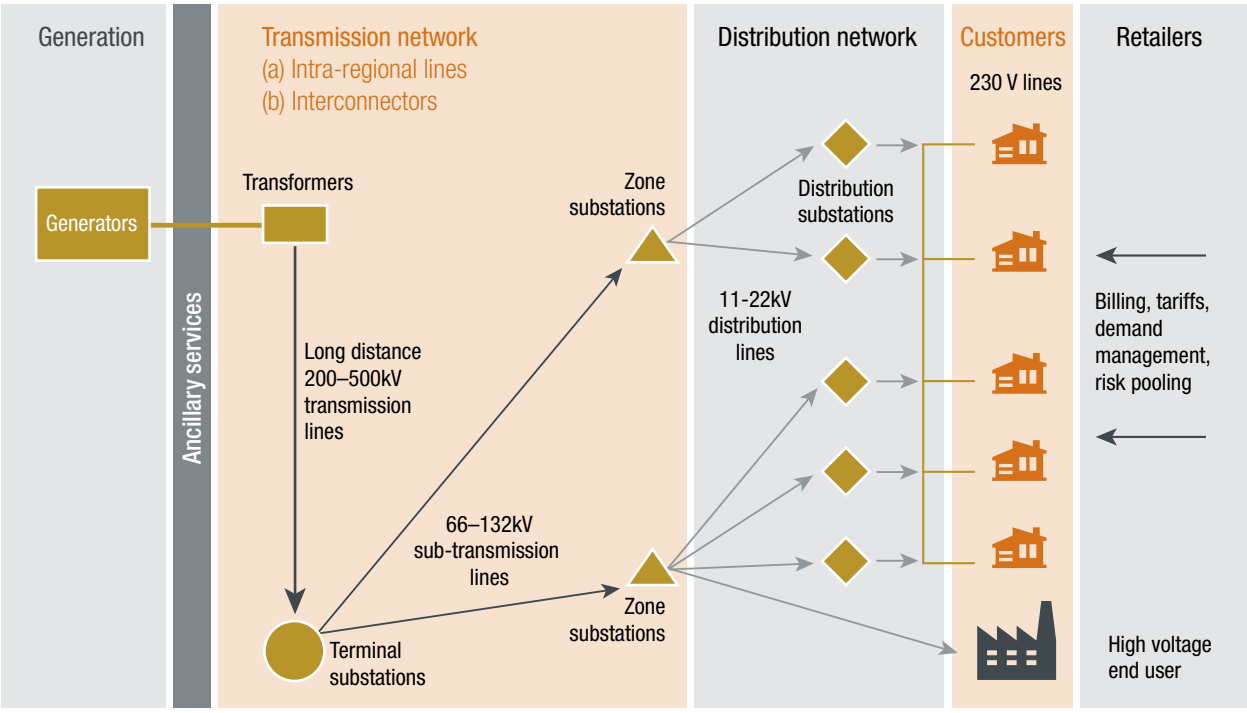
There are problems in existing regulatory arrangements

The Commission found many problems in the existing regulatory arrangements for electricity networks.

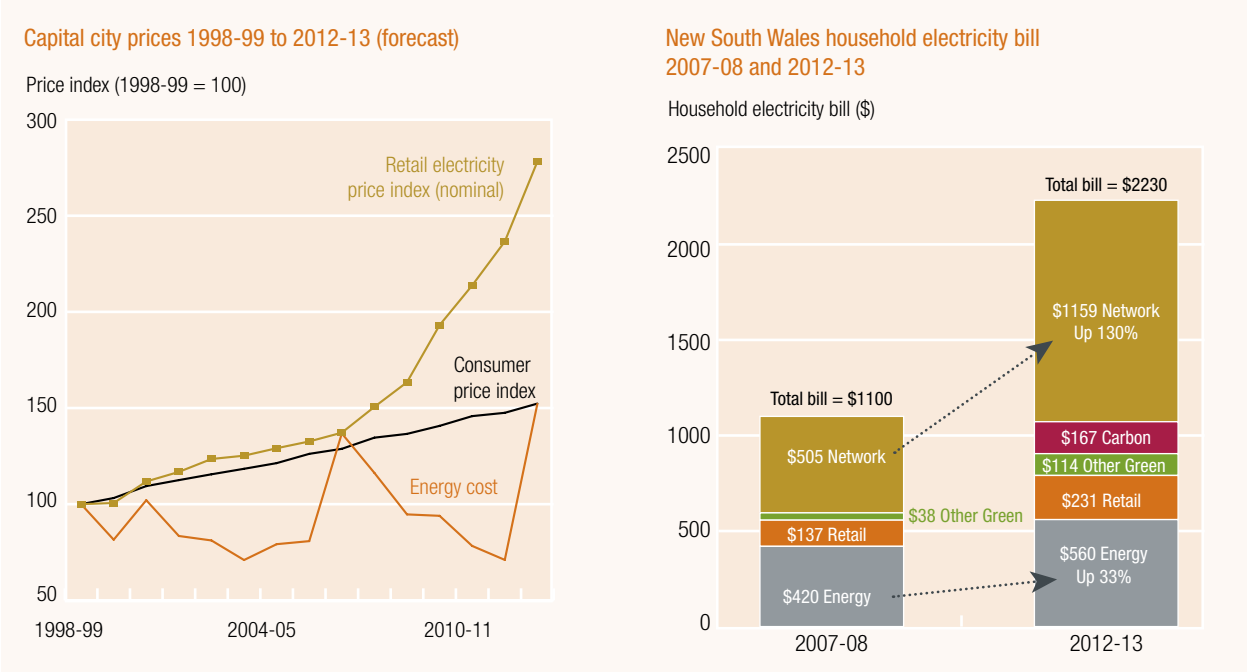
- The governance arrangements for the NEM – in which the Standing Council on Energy and Resources (SCER), the Australian Energy Regulator (AER), the Australian Energy Market Commission (AEMC) and all state and territory governments play a major role – are neither efficient nor effective in achieving good outcomes for consumers.
- There are far from optimal regulatory settings for network reliability and transmission planning.
- The National Electricity Rules have led to inflated costs of capital and created incentives for inefficient investment.
- There are major weaknesses in regulatory arrangements for demand management.
- The high voltage transmission lines transporting power between regions in the NEM – the 'interconnectors' – are not being efficiently utilised, resulting in excessive prices and weakening long-term signals for efficient network capacity and generator location.

Reforms in 2012, including improvements to the National Electricity Rules, better resourcing of the Australian Energy Regulator and greater representation of consumers, have only partly addressed problems in the regulation of electricity networks. There continues to be major weaknesses in the regulatory arrangements.

The electricity system



Prices have risen steeply



A suite of coordinated reforms is needed

The Commission has proposed a suite of coordinated reforms that aim to take account of the many inter-relationships in what is a complex economic 'machine' and which would benefit the long-term interests of consumers.

- A key pre-requisite to the reforms is for SCER to change its processes and decision making so that critical policy reviews in the NEM, the corresponding changes to the National Electricity Rules, and their implementation occur much more quickly.
- Recent reforms to consumer advocacy in the NEM could be enhanced through the eventual amalgamation of three national consumer bodies into a single statutory body to act on behalf of all consumers. The body should be fully-funded through an industry levy, and have the required expertise to play a leading, but not exclusive, role in representing consumers in all regulatory processes. Partial funding on a contestable basis should continue for individual advocacy groups.

- Although reliability is a critical feature of electricity networks, some consumers are forced to pay for higher reliability than they value and reliability standards tend to be prescriptive and sometimes politically-influenced. Reliability standards should be based on trading off the costs of achieving them against what customers are willing to pay.
- A large share of retail electricity bills (in New South Wales, some 25 per cent) is required to meet around 40 hours of very high (so called 'critical peak') demand each year. Avoiding this requires a coordinated suite of reforms over time, involving consumer consultation, which include the removal of retail price regulation, the staged introduction of smart meters, and time-based pricing for critical peak periods. This would defer costly network investment, ease price pressures on consumers, and reduce the large hidden cross-subsidies effectively paid by (often lower-income) people who do not heavily use power in peak times to those who do.
- State-owned network businesses have conflicting objectives, which reduce their efficiency and undermine the effectiveness of 'incentive regulation' – the regulation administered by the AER to encourage network businesses to be more cost efficient and to not set too high prices. Their privately-owned counterparts are better at efficiently meeting the long-term interests of their customers. State-owned network businesses should be privatised.
- Current incentive regulation encourages network businesses, especially state-owned ones, to build too much. It should be changed to be more effective at encouraging efficient investment.
- Recent reforms, including an announced 2014 review would enhance the AER's governance. Other NEM institutions including the AEMC, the Australian Energy Market Operator and the Commission's proposed single consumer statutory body should also be reviewed by 2018 to ensure their effective performance.
- At this stage, benchmarking through comparing the relative performance of network businesses is too unreliable to set regulated revenue allowances. Nevertheless, greater and more effective use of benchmarking could better inform the AER's decisions.
- There is no evidence of insufficient capacity in the interconnectors carrying power. They are sometimes under utilised because of perverse incentives and design flaws in the regulatory arrangements. Changes to the National Electricity Rules should address these problems.

The gains from reforms are significant

The Commission's indicative estimates suggest that the gains from its proposed suite of reforms would be significant.

- In New South Wales alone, $1.1 billion in distribution network capital expenditure could be deferred until the next five year regulatory period by adopting a reliability framework that takes account of consumers' preferences for reliability. The actual savings are likely to be larger.
- Adopting a different reliability framework for the high voltage part of the transmission network could generate large efficient gains in the order of $2.2 billion to $3.8 billion over 30 years.
- If carefully implemented, critical peak pricing and the rollout of smart meters could produce average savings of around $100–$200 per household each year in regions with impending capacity constraints (after taking account of the costs of smart meters).

Summary of the Commission's key recommendations

Timeliness in decision making and National Electricity Rule changes

SCER should commit to identify critical areas for reform, and to prioritise these through tighter timetables for their implementation. It should avoid overlapping and protracted reviews. It should speed up the current review into transmission and distribution reliability.

There should be accelerated AEMC Rule changes for SCER requests arising from independent appropriately conducted reviews.

A focus on consumers

The National Energy Consumer Advocacy Body should cover all consumers, and have the expertise and funding to be an effective participant in the regulatory process. The limited merits review process should also be reformed.

Summary of the Commission's key recommendations …cont

Reliability

Reliability decisions should be based on customers' valuations, not prescriptive standards.

For distribution, a new national reliability framework should be introduced, and incentive schemes reformed to reflect customer preferences.

For transmission, reliability standards should be set at the connection point level across the NEM. Investment decisions should be made by the transmission businesses, but with scrutiny by the AER and AEMO for large projects (and subject to a cost–benefit test and consideration of NEM-wide impacts and efficiency).

Demand management

A coordinated suite of reforms should be introduced over time, including consumer consultation; removal of retail price regulation; the capacity for distributors to include the installation of smart meters as part of standard regulatory arrangements; common meter standards; a capacity for all parties to install meter add ons or upgrades; and time based pricing for critical peak periods. Direct load control options would also play a role.

Network ownership

State owned network businesses should be privatised.

If not, governance should be improved, and non commercial objectives and policies should be removed.

There should be an orderly, well planned privatisation process, with consumer engagement.

The AER should issue a separate annual report; have administrative control over its budget and resources (including a capacity to acquire specialist expertise); publicly reveal its strategies for improving its performance; negotiate resource sharing agreements with other agencies as it feels appropriate; strengthen and retain its specialist expertise; and develop a program for regular consultation with all stakeholders.

All NEM institutions should be reviewed by 2018 and, thereafter, at regular 10 yearly intervals.

Benchmarking

Benchmarking is currently too unreliable to set regulated revenue allowances, but could better inform the regulator's decisions. In the future (after the rigour and accuracy of benchmarking improves), reforms could be made to underpin negotiations for 'early settlements' with businesses, and potentially to base allowances on benchmarking.

Interconnectors

The wholesale market should be reformed to influence generator bidding behaviour, and change the way they pay for access to the transmission network.

Intra regional transmission networks should be planned to optimise the use of interconnectors. A short term congestion pricing mechanism should be implemented as the precursor to the potential adoption of the 'optional firm access' package currently being considered by the AEMC.

In the long term, the potential for 'nodal pricing' with a system of financial transmission rights should be considered, pending a review of its merits compared with the firm access arrangements.

Electricity Network Regulation

> Productivity Commission Inquiry Report
> Released June 2013

Government assistance to industry

The most recent estimates of Australian Government assistance to industry are contained in the Commission's latest *Trade & Assistance Review*.

The Australian Government assists industries through an array of measures, including import tariffs, budgetary outlays, taxation concessions, and regulatory restrictions on competition. Although assistance generally benefits the receiving industry and businesses, it can penalise other industries, taxpayers and consumers.

The industry assistance landscape in Australia has changed considerably over the last 40 years. Tariff assistance has declined markedly, predominantly through unilateral tariff reductions implemented by the Australian Government. On the other hand, there has been a shift towards greater budgetary assistance to industry (see figure), particularly over the last decade. Such assistance is provided by the Australian Government, as well as by State, Territory and local governments.

The Productivity Commission is required to report annually on industry assistance and its effects on the economy. *Trade & Assistance Review 2011-12* contains the Commission's latest quantitative estimates of Australian Government assistance to industry. Assistance estimates presented in the report mark the commencement of a new series based on the 2008-09 ABS input-output tables, replacing the previous 2004-05 based series.

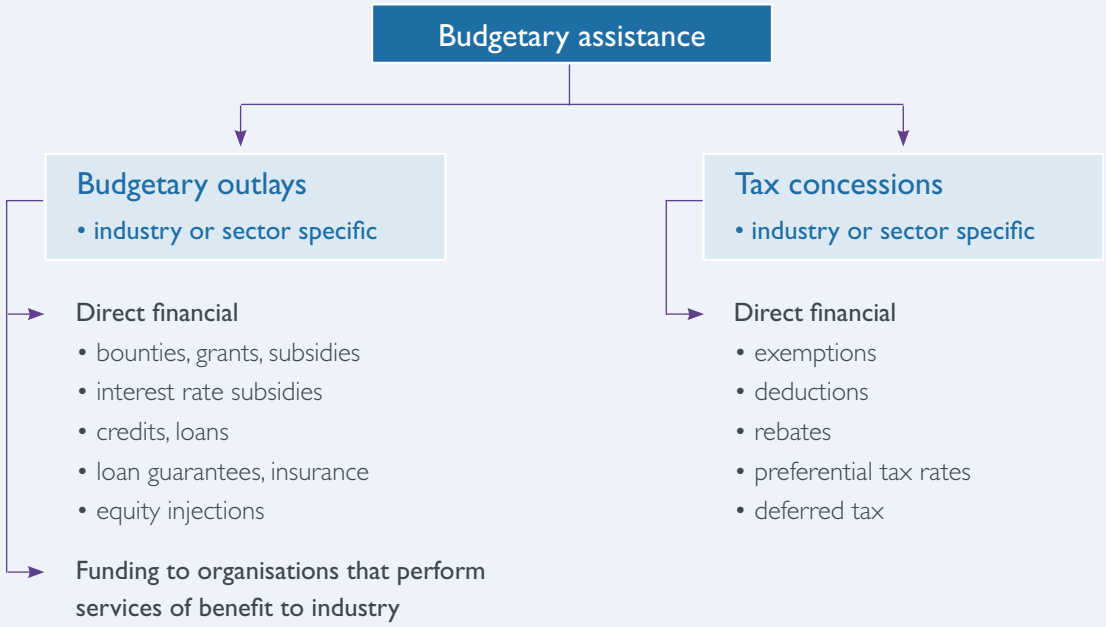
For 2011-12, total measured assistance by the Australian Government to industry was $17.3 billion in gross terms. It comprised $7.9 billion in tariff assistance, $5.1 billion in budgetary outlays and $4.3 billion in tax concessions. After allowing for the cost to industry of tariffs on imported inputs, amounting to $6.8 billion, net assistance to industry was $10.5 billion.

Combined assistance to industry, 2006-07 to 2011-12 – $ million (nominal)

	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Tariff output assistance	8472.0	9032.4	8936.3	8418.3	8076.0	7895.0
Budgetary outlays	3701.6	4411.1	3689.7	3802.3	3574.5	5128.7
Tax concessions	3103.6	3987.9	4607.1	5796.0	6230.9	4291.2
Agricultural pricing assistance	124.3	120.1	0.2	0.0	0.0	0.0
Gross combined assistance	**15401.5**	**17551.5**	**17233.2**	**18016.6**	**17881.3**	**17314.9**
Tariff input assistance	–5983.6	–6443.0	–6717.0	–6620.1	–6652.5	–6813.8
Net combined assistance	**9418.0**	**11108.5**	**10516.3**	**11396.5**	**11228.8**	**10501.1**

Source: Commission estimates.

Forms of budgetary assistance



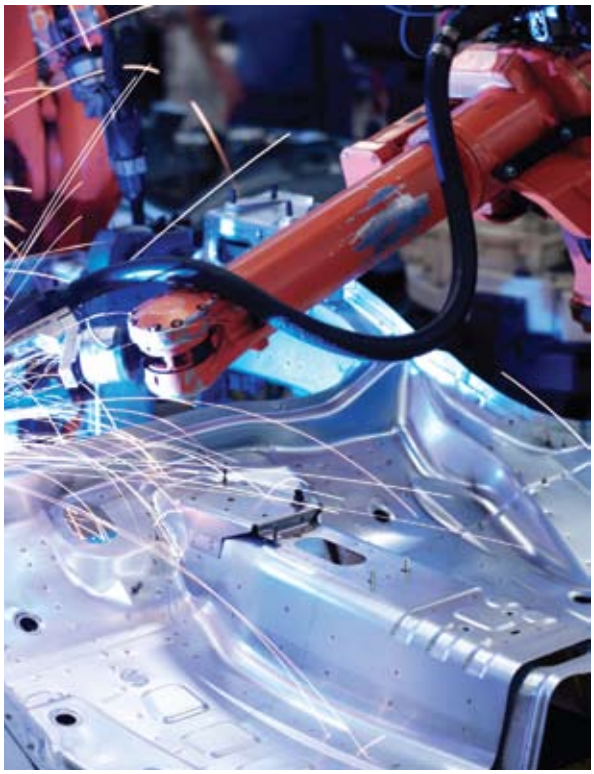
The manufacturing sector continues to receive the highest level of net assistance – mainly because of tariff assistance on outputs. For the services sector, the tariff penalty on inputs exceeds its measured budgetary assistance. While the primary sector received the majority of its assistance in the form of budgetary outlays, tariff protection continues to be afforded to a range of horticultural, crop and forestry products.

The effective rate of assistance for manufacturing is around 4 per cent and 3 per cent for agriculture. The effective rate of assistance to the motor vehicles and textile, clothing and footwear industries is around 9 and 7 per cent respectively. Although much reduced over recent decades, these rates remain well above the average for manufacturing.

Since May 2012 (the reporting date for the 2010-11 Review), the Australian Government has announced further budgetary assistance of around $430 million. Of this, announcements in respect of industry-support programs totalled around $230 million, mostly to be expended over the next five years. Most of this relates to transitional assistance to the fishing industry, the automotive new markets program, regional-industry infrastructure programs and tourism programs. A further $192 million was announced for carbon emission reduction and energy efficiency.

Trade policy

The onset of the global financial crisis (GFC) in 2008 was marked by an increase in protectionist measures, the most common of which included trade remedies (such as anti-dumping investigations) and border assistance. While monitoring is showing a decline in new trade restrictive measures by WTO members, the concern now is that there is an apparent shift from measures aimed at combatting the temporary effects of the GFC towards 'national industrial planning' including through government subsidies and purchasing preferences. Monitoring of changes by the WTO is proving difficult leading to calls for improvements in transparency and peer review.



Intellectual property systems

The latest Trade and Assistance Review also reports on intellectual property (IP) systems, the design and implementation of which have important implications for Australia's innovation and trade. The Commission also recently completed a report on Compulsory Licencing of Patents. These reports could provide a base for further work on what is likely to be an area of increasing relevance for trade and innovation policy.

For such a diverse topic area, an issue is whether there would be a role in the medium term for an independent overarching framework-style review into IP, to complement ongoing topic-specific reviews into current issues and developments.

Trade and Assistance Review 2011-12

> Productivity Commission Annual Report Series

> Released June 2013

Deep and persistent disadvantage in Australia

Despite two decades of strong economic growth and rising average incomes, there are concerns within the community that some Australians are being 'left behind'. A new Commission Staff Working Paper examines the extent and causes of persistent disadvantage in Australia.

Headline statistics on Australia's most disadvantaged people frequently appear in the media, with the number of Australians living below the poverty line often quoted. But little attention is given to explaining what judgments lie behind these statistics, or how much of the story they tell. Many of the headline statistics provide an incomplete and static picture of disadvantage. What happens over time matters. For example, some people can move in and out of disadvantage relatively quickly, while others can remain disadvantaged for extended periods of time.

A lack of understanding about disadvantage can contribute to misplaced community concerns. It can also be an impediment to good public policy. A recent Productivity Commission Staff Working Paper, *Deep and Persistent Disadvantage in Australia*, sought to find answers to questions such as:

- what does it mean to be disadvantaged?
- how many Australians are disadvantaged and who are they?
- what factors influence a person's risk of experiencing disadvantage?
- what are the costs of disadvantage and who bears them?

What does it mean to be disadvantaged?

What it means to be disadvantaged and how to measure it are challenging and contentious issues. The authors of the Staff Working Paper found that there is no one agreed way to define and measure disadvantage. This is in part because disadvantage involves many aspects of people's lives and it is influenced by the values and priorities of different societies. Researchers and policy analysts adopt a variety of lenses through which to view and understand this complex phenomenon, including: poverty; deprivation; capabilities; and social exclusion. These approaches complement each other to reflect the multi dimensional nature of disadvantage. What is clear is that disadvantage is about 'impoverished lives', rather than just low income.

How many Australians are disadvantaged and who are they?

Many Australians experience disadvantage at some point in their lives. Fewer experience deep disadvantage. Around 5 per cent of Australians aged 15 years plus experienced *deep* social exclusion in 2010, down from 7 per cent in 2001 (Social Exclusion Monitor, figure 1). The rate of *very deep* exclusion over the decade was 1 per cent in 2010 and was relatively stable over the decade.

A small group of Australians remain disadvantaged for extended periods of time. Between 2001 and 2010, just under 3 per cent of Australians aged 15 years plus experienced deep social exclusion for five or more years and under 1 per cent for seven years or more (Social Exclusion Monitor).

People who are more likely to experience deep and persistent disadvantage include lone parents and their children, Indigenous Australians, people with a long-term health condition or disability, and people with low educational attainment. Many are public housing tenants and/or are unemployed or not in the labour force. But only a small share of people in these situations actually experience deep and persistent disadvantage.

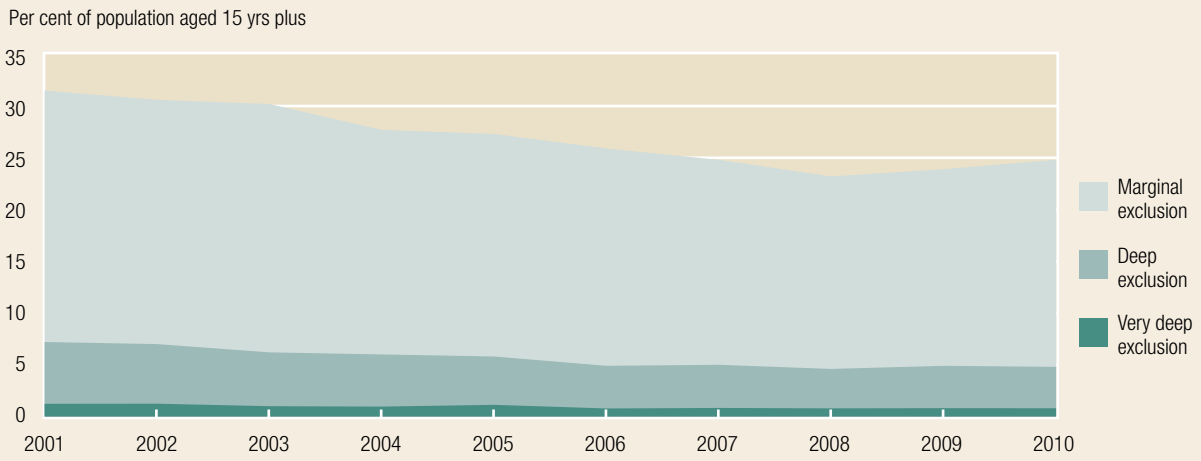
Figure 1: Many Australians experience disadvantage at some point in their lives, but fewer experience deep disadvantage

Trends in social exclusion: Social Exclusion Monitor, 2001 to 2010

What is meant by marginal, deep, and very deep exclusion?

The Social Exclusion Monitor (SEM) captures information on the level of exclusion of Australians aged 15 years and over. Responses to a set of HILDA survey questions are used to construct 29 indicators across seven key life domains (including material resources, employment, education and skills, health and disability, social connection, community and personal safety). A sum score approach is used, with responses for each domain assumed to be of equal importance.

With 7 life domains all accorded a value of 1, the highest score an individual can receive is 7 and the lowest 0. A score of 1 or more signifies some level of exclusion. If respondents receive a cumulative score of between 1 and 2 they are regarded as *marginally excluded*, a score of 2 or more signifies *deep exclusion* and a score of 3 or more equates to *very deep exclusion*.



Data sources: Brotherhood of St Laurence; Melbourne Institute of Applied Economic and Social Research.

What factors influence a person's risk of experiencing disadvantage?

Disadvantage has its roots in a complex interplay of factors. Many of these factors, when combined, can have a compounding effect. The probability that any one person will experience disadvantage is influenced by: their personal capabilities and family circumstances; the support they receive; the community where they live (and the opportunities it offers); life events; and the broader economic and social environment.

Figure 2 summarises these factors and shows how the concepts of a person's capabilities and opportunities can be thought of as the outcomes of their family and community environments, together with the state of the economy and the employment opportunities it provides.

A child's earliest years fundamentally shape their life chances. Gaps in capabilities between children from disadvantaged families and their more advantaged peers appear early in life. Starting school 'behind the eight ball' can begin a cycle of disadvantage that sets a trajectory for poorer outcomes later in life (figure 3).

Education is a foundation capability. It improves a person's employment prospects and earning capacity, and the evidence points to a relationship between education and better health and raised civic and social engagement.

Employment is the route out of disadvantage for most people of working age. But paid employment does not guarantee an absence of recurrent disadvantage, as some jobs, particularly low-skilled jobs, are low-paid and hours of available work not assured. Living in a job-poor household (where aggregate hours worked are less

than 35 hours per week) is experienced by more people, and appears to be more likely to be long term, than joblessness. Importantly, economic growth and a strong macro environment translates into increased employment opportunities and incomes.

Events such as the onset of poor health or disability and relationship breakdowns can trigger disadvantage. People with poor health and disabilities can have more limited opportunities to engage in education, paid work and their local community life. Others can face personal barriers (such as caring responsibilities or addictions).

The evidence points strongly to the importance of the early years of a child's life, including the home learning environment, for building capabilities so that children do not start school 'behind the eight ball', setting a trajectory for poor educational outcomes.

Figure 2: Factors influencing life chances of experiencing disadvantage

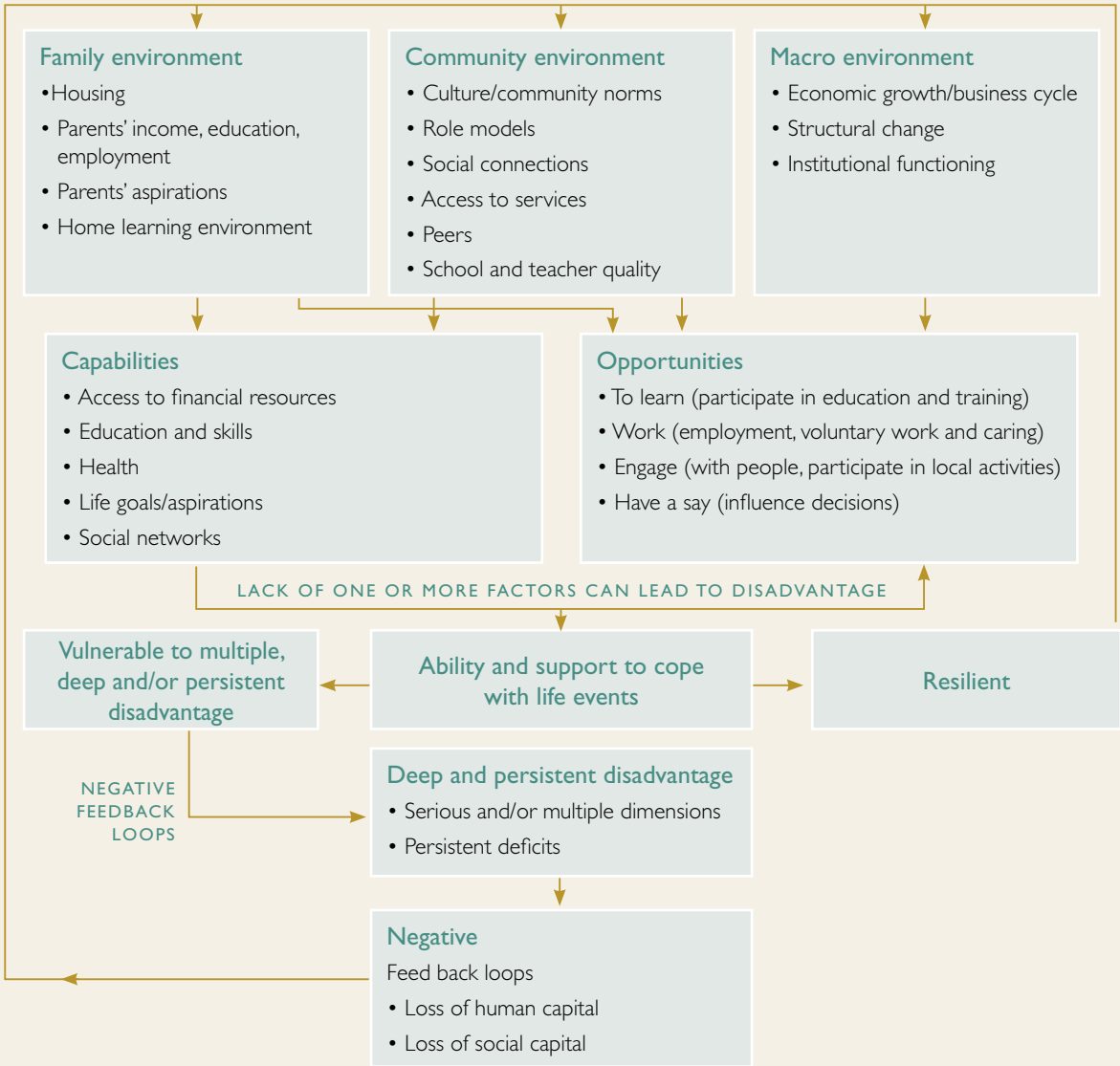
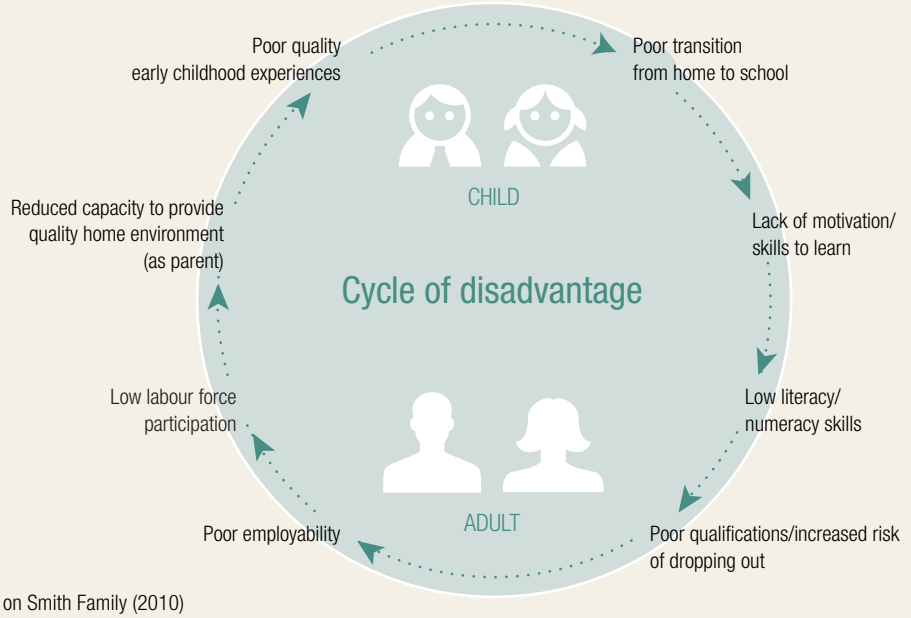


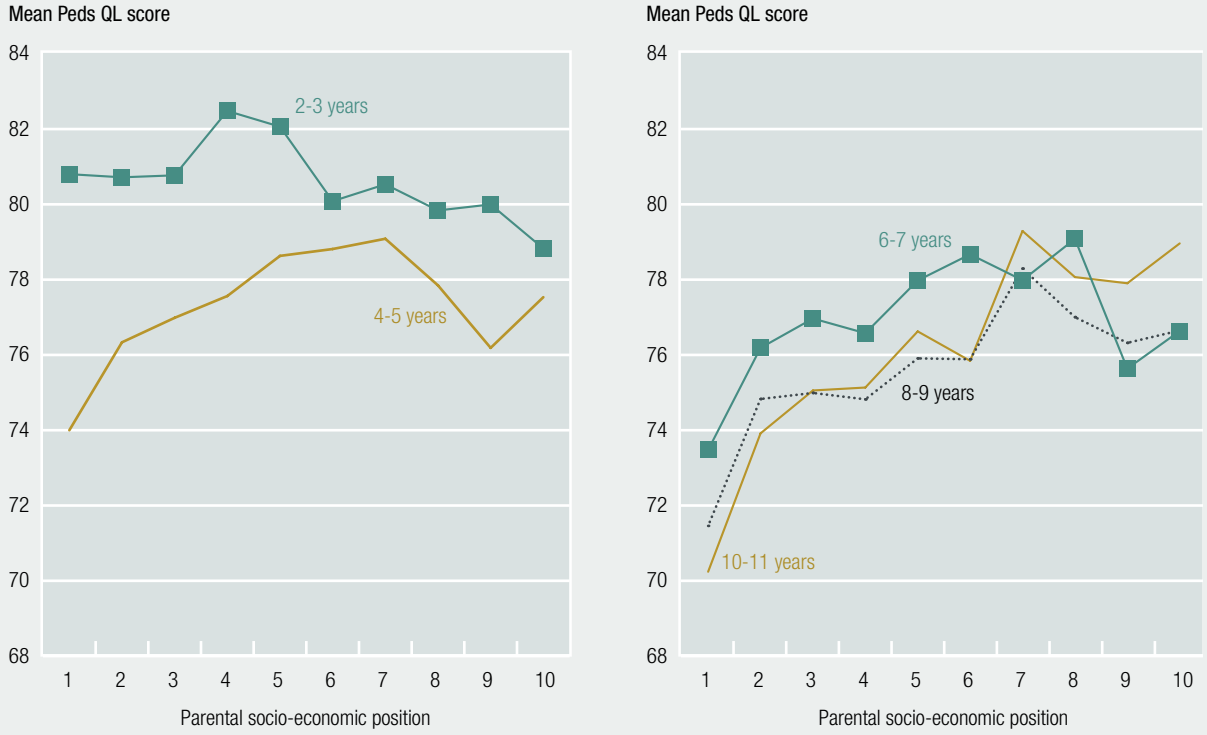
Figure 3: The cycle of disadvantage can start early in life



Source: Based on Smith Family (2010)

Figure 4: Gaps in children's development across socioeconomic groups are evident early … and there is evidence that the gap widens as children get older

Development outcomes for Australian children aged 2-3 to 10-11 year olds by socioeconomic position[ab]



[a] MeanPedsQL scores – Pediatric Quality of Life inventory or model which measures the extent of physical, emotional, social and school functioning of children.
[b] Socioeconomic position (SEP) – ranging from 1 (the lowest decile) to 10 (the highest decile).

Data source: Data provided by Australian Institute of Family Studies, based on LSAC, Waves 1, 2, 3 and 4.

What are the costs of disadvantage and who bears them?

Disadvantage imposes costs on the people who experience it, those close to them, and the broader community. The cost of disadvantage, however, is difficult to define and hard to estimate. The authors concluded that the policy-relevant cost of disadvantage should be defined in terms of avoidable costs – that is, the difference between actual and potential outcomes – a realistic counterfactual.

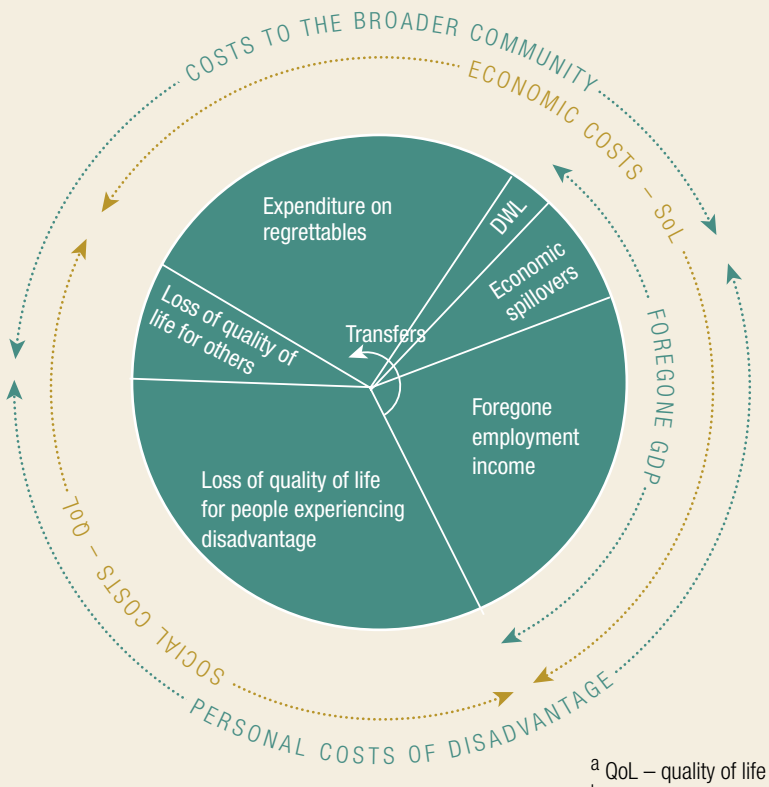
Figure 5 provides a way to categorise the outcomes of current or past disadvantage into those that impact on material living standards (economic costs) and those that impact on quality of life (social costs).

Missing pieces of the puzzle

Knowledge about disadvantage in Australia is thin in a number of areas.

Longitudinal data is critical to understanding the dynamics of disadvantage. But good data that follows people through the course of their lifetime and across generations, takes a considerable time to amass. Also, people who are most disadvantaged are either not well represented in such studies or are more likely to drop out of surveys over time. Administrative data has the potential to provide new knowledge to inform researchers and policy makers about deep and persistent disadvantage.

Figure 5: Categorising the costs of disadvantage[abc]



[a] QoL – quality of life
[b] SoL – material stantard of living
[c] DWL – dead weight loss

Deep and Persistent Disadvantage in Australia

> McLachlan, R., Gilfillan, G. and Gordon, J.
> Productivity Commission Staff Working Paper
> Released July 2013

Compulsory licensing of patents: balancing innovation and access to technology

A recent Commission report recommends changes to the patents system to improve the community's access to technologies and to protect patent holders' rights.

What is the Problem?

Without public intervention, inventors may have inadequate incentives to undertake the level of innovation that is optimal from society's viewpoint. This can occur if those producing innovations are unable to capture sufficient benefits from their inventions to cover their costs. Measures to address this problem include establishing property rights through the issuance of patents. A patent is a legally-enforceable right to exclude others from utilising a device, substance, method or process that is new, inventive, and useful at the time the patent was granted.

In the design of a patents system, there is a tradeoff between encouraging innovation on the one hand, and facilitating adoption of inventions on the other. The right to exclude others from using a patented invention is central to providing innovators with a means to benefit financially from their efforts, but it can also hinder adoption of the invention. In cases where there are no near substitutes for an invention, a patent could also facilitate monopolistic and/or anticompetitive behaviour. Safeguards, such as compulsory licensing, are typically built into a patents system to limit these potential shortcomings.

Compulsory licensing is one of several mechanisms in the Patents Act that allow a patented invention to be used without the authorisation of its owner. A patent holder can be ordered by the Federal Court to license its invention to another party if it has failed to satisfy the 'reasonable requirements of the public', or its behaviour in connection with the patent is contrary to the competition law.

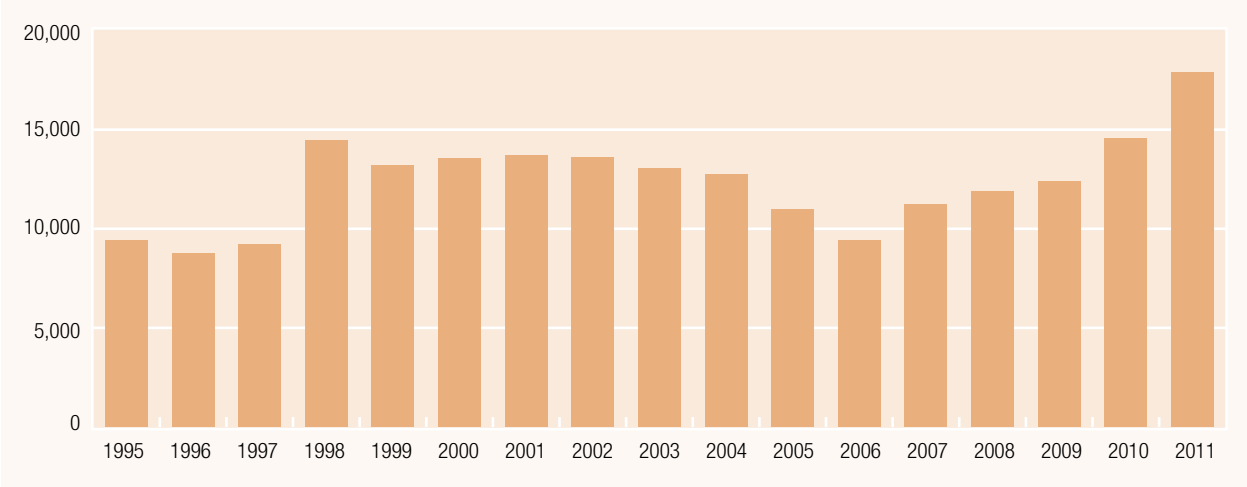
Several past reviews of the patents system have questioned the clarity of these criteria and their implementation, particularly as a means to address cases where gene patents unduly restrict access to healthcare. The effectiveness of the provisions has also been questioned because there have been few applications for a compulsory licence, and none has been successful, since it became an option under Commonwealth legislation in 1903.

In response to concerns raised in past reviews, the Australian Government asked the Productivity Commission to examine the compulsory licensing provisions of the *Patents Act 1990* (Cwlth), including to:

- assess whether Australia's current compulsory licensing provisions can be invoked efficiently and effectively
- recommend measures that may be required to efficiently and effectively exercise Australia's compulsory licensing provisions
- recommend alternative mechanisms deemed necessary to ensure that the balance between incentives to innovate and to access technology best reflects the objectives of reasonable access to healthcare, maximising economic growth and growing the Australian manufacturing industry.

The Commission's final report was released in May 2013.

Figure 1: Patents granted in Australia, 1995 to 2011



The Commission report notes that, like most other countries, Australia has legislated a system of compulsory licensing so that patent holders can be compelled to license their inventions to others in a limited range of circumstances. This is a safeguard to be invoked in cases where a patent holder is unduly restricting the community's access to a technology.

The report argues that accessibility of patented technologies is an important issue, given that a substantial number of inventions are patented in Australia each year (figure 1). Moreover, over 90 per cent of Australian patents are granted to non-residents.

Is there a problem accessing patented technologies?

There is limited information on the extent to which patent holders voluntarily make their technologies available to the Australian community on reasonable terms. Survey data suggest that only a small proportion of patents in Europe, Japan, and the United States are licensed to others. However, it appears that barriers – such as difficulties in finding potential licensees – are to blame, rather than patent holders typically denying access to technologies. The survey data show that patent holders often want to license more than they do. This is consistent with the views of inquiry participants, who typically saw compulsory licensing as a mechanism that only needs to be invoked in exceptional cases in Australia.

Past reviews have suggested that there may be a case for compulsory licensing of gene patents. Australia, like other developed countries, has granted patents for 'isolated and purified' human genes, and associated testing methods. This has been criticised by some as restricting access to affordable healthcare. The behaviour of a US company and its Australian licensee with respect to patents over the BRCA1 and BRCA2 genes is typically cited as evidence (see box).

The BRCA1 and BRCA2 gene patents

The BRCA1 and BRCA2 genes belong to a class of genes known as tumour suppressors. The normal BRCA1 and BRCA2 genes help prevent uncontrolled cell growth. Mutation of these genes has been linked to the development of breast, prostate and ovarian cancer. A US company, Myriad Genetics Incorporated (Myriad), holds the patents relating to methods and processes used to isolate and detect mutations of the BRCA1 and BRCA2 genes. In 2002, Genetic Technologies Limited (GTL) obtained an exclusive licence from Myriad to perform diagnostic testing for BRCA1 and BRCA2 genes in Australia.

In 2002-03 and 2008, GTL attempted to enforce its rights over diagnostic testing of the BRCA1 and BRCA2 genes in Australia. However, following community opposition, in both instances GTL subsequently announced that it would no longer seek to enforce its rights and would allow other laboratories in Australia to freely perform testing. The actions of Myriad and GTL have raised concerns in relation to access to affordable genetic testing, and prompted legal action in both Australia and the United States. In both cases the legal action is ongoing.

However, the BRCA case does not appear to be representative of the behaviour of gene patent owners. Critics rarely refer to any other examples, and preliminary results from a recent survey of testing laboratories suggest that patents are not currently hindering access to genetic tests. Nevertheless, the Commission supported the in-principle case for having a compulsory licensing system to address concerns such as those raised by the BRCA case.

The Commission also considered several other specific areas – standard essential patents, food security, climate change mitigation and alternative energy technologies – and found no case for widespread use of compulsory licensing.

Reforming Australia's compulsory licensing provisions

It is widely recognised that obtaining a compulsory licence would be costly and time consuming. This is largely because an application has to be made to the Federal Court for an order requiring the patent owner to grant a compulsory licence. The primary expense would be the legal costs to prepare and present a case to the court, rather than any fees charged by the court itself.

The Commission found that there are no clear alternatives to the Federal Court that would make compulsory licence applications significantly less costly and time consuming without also raising concerns about the quality of outcomes and scope for appeals. There is however a clear case to strengthen the criteria for granting a compulsory licence, and to remove overlap and inconsistency across different pieces of legislation.

The Commission has suggested three main areas for reform.

First, there are currently provisions in both the *Competition and Consumer Act 2010 (Cwlth)* and *Patents Act 1990 (Cwlth)* to address anticompetitive behaviour. This creates overlap and inconsistency because different remedies against such behaviour are also available in the Competition and Consumer Act itself (including

effectively a compulsory licence). Moreover, there are differences between the two Acts in the rights afforded to prospective applicants and the potential litigation avenues and process. To address this, the Commission has suggested that when a patent is used to engage in unlawful anticompetitive conduct, a compulsory licence should only be available under the Competition and Consumer Act.

Second, a public interest test should replace existing criteria based on the 'reasonable requirements of the public' in the Patents Act. The Patents Act currently defines the reasonable requirements of the public in a way that focuses on promoting domestic trades and industries. This could potentially lead to a compulsory licence being issued when it is not in the interests of the community as a whole. The proposed change would provide an access regime when greater use of a patented invention would deliver a substantial net benefit to the community.

Third, to reduce uncertainty about international treaty obligations on compulsory licensing, the existing general requirement in the Patents Act to satisfy such obligations should be deleted, and the obligations should be incorporated directly into the Patents Act or its subordinate legislation. While this could raise the cost of implementing treaties on intellectual property, it will be outweighed by the benefit of having treaty terms translated into standard legislative language and scrutinised more thoroughly by the Parliament.

Crown use

The Patents Act contains a less costly and time-consuming alternative to compulsory licensing – termed 'Crown use' – that can be invoked when an invention is used for the services of a government. Moreover, it appears that Crown use can be applied to healthcare-related patents – including gene patents – given that governments have a major role in providing healthcare. However, inquiry participants (including government agencies) were uncertain about this.

Compulsory licensing of patents: summary of the Commission's recommendations

The Australian Government should seek to remove s. 133(2)(b) from the *Patents Act 1990 (Cwlth)*, so that a compulsory licence order based on restrictive trade practices of the patent holder is only available under the *Competition and Consumer Act 2010 (Cwlth)*. The remedy provisions in the Competition and Consumer Act should be amended to explicitly recognise compulsory licence orders to exploit a patented invention as a remedy under the Act.

The Australian Government should seek to amend the Patents Act to replace the 'reasonable requirements of the public' test for a compulsory licence with a new public interest test. The new test should specify that a compulsory licence to exploit the patented invention would be available if:

- Australian demand for a product or service is not being met on reasonable terms, and access to the patented invention is essential for meeting this demand
- the applicant has tried for a reasonable period, but without success, to obtain access from the patentee on reasonable terms and conditions
- there is a substantial public interest in providing access to the applicant

Where the parties cannot reach agreement, the new provisions should require the Federal Court to set the terms of the licence, including any remuneration, consistent with the public interest.

The Australian Government should seek to amend s. 163 of the Patents Act to make it clear that Crown use can be invoked for the provision of a service that the Australian, State and/or Territory Governments have the primary responsibility for providing or funding. The Crown use provisions should also be amended to require:

– the Crown to attempt to negotiate use of the patented invention prior to invoking Crown use

– the Crown to provide the patentee with a statement of reasons no less than 14 days before such use occurs

– Crown use to be approved by a Minister (the relevant Federal Minister or State Attorneys-General)

– that in instances of Crown use, the patentee is entitled to remuneration determined on the same basis as that for a compulsory licence.

The first two requirements should be able to be waived in emergencies. However, in all cases patentees should be provided with immediate notice that their patents have been used, and a statement of reasons as soon as practical thereafter.

The Australian Government should seek to repeal s. 136 of the *Patents Act 1990 (Cwlth)*. Current and future international treaty obligations should be incorporated directly into the Patents Act or its subordinate legislation.

IP Australia and the Australian Competition and Consumer Commission (ACCC) should jointly develop a plain English guide on the compulsory licensing provisions. The guide should be available on both the IP Australia and ACCC websites.

To reduce uncertainty about the scope of Crown use, the Commission recommended that the Patents Act be amended to make it clear that Crown use can be invoked for the provision of a service that the Australian, State and/or Territory Governments have primary responsibility for providing or funding.

There is also a case for improving the protection of patentees' rights under Crown use. To improve transparency and accountability, governments should be required to first seek a negotiated outcome, and publicly state the reasons for invoking Crown use in advance, except in emergencies. Governments should in all cases be required to obtain Ministerial approval to invoke Crown use, and be subject to the same pricing principles as for compulsory licensing.

Compulsory Licensing of Patents

> Productivity Commission Inquiry Report

> Released May 2013

Major project development assessment processes

The Commission's recent draft report argues that many of the building blocks of a sound development assessment and approval system for major projects are already in place, but that there is substantial scope for improvement.

Major projects bring substantial economic benefits for Australia. They can contribute to national income, create employment opportunities, raise productivity and generate revenue that helps fund government programs. But major projects can also damage the environment and heritage places, and result in a loss of amenity for local communities. Governments regulate major projects through development assessment and approval processes to manage these risks and to promote an appropriate balance of economic and other factors bearing on community wellbeing.

The costs of developing major infrastructure, resource, commercial and public purpose projects in Australia are high and rising. This is driving concerns about Australia's competitiveness, productivity and future prosperity. There is a range of sources for higher costs, one of which is the regulatory burden of development assessment and approval processes. Business groups have argued that these processes (and associated 'red tape') are a key factor impacting on successful investment in Australia.

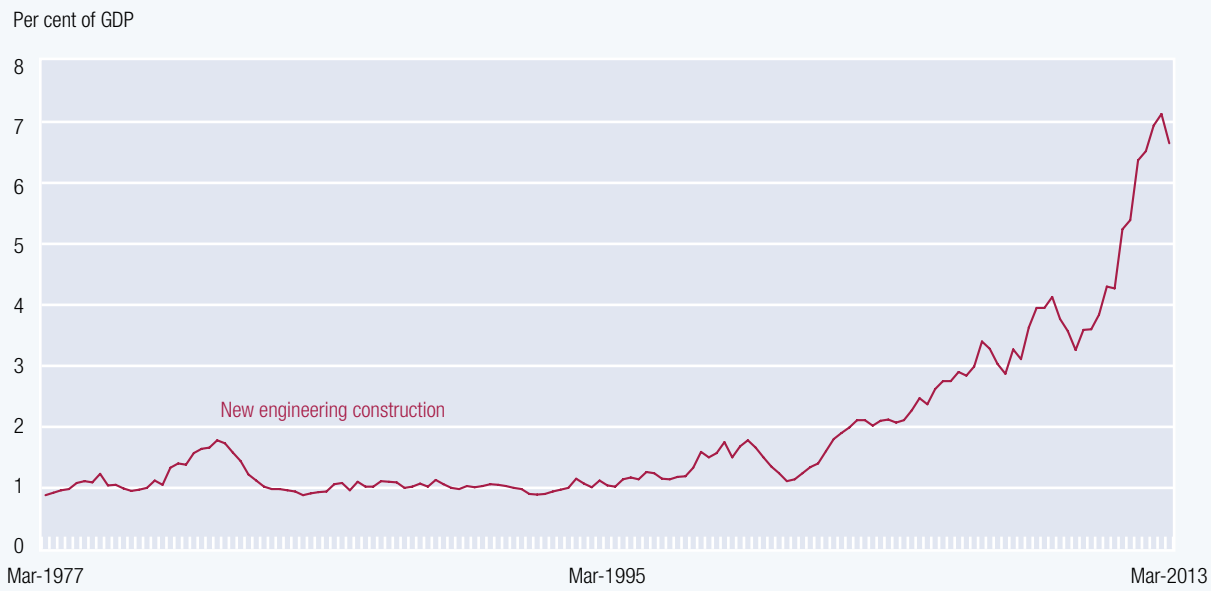
In light of business and community concerns, the Commission was asked to benchmark Australia's major project development assessment and approval processes against international and domestic best practice. In particular, the Commission was requested to examine the role of lead agencies, one-stop shops, strategic planning and assessment, statutory timeframes, and risk- and outcome-based approaches to regulatory design. And in doing so to make recommendations on how to improve Australia's development assessment and approval processes.

The Commission's draft report was released on 5 August and, following further stakeholder consultations, the final report will be sent to the Australian Government in early December 2013.

Investment in major projects has surged

In Australia, major projects are typically resource developments, infrastructure projects and large commercial or public purpose buildings, such as hospitals or stadiums. Thanks largely to the mining boom, investment in major projects has surged over the last decade and the size of the largest developments is unprecedented in Australia's history. This has put pressure on regulatory agencies' capacity to process approvals.

While there are no comprehensive statistics on the value of major projects, new engineering construction provides a rough proxy.



Data source: ABS, *Australian National Accounts: National Income, Expenditure and Product*, Cat. no. 5206.0

Complexity is unavoidable, but needs to be better managed

Development assessment and approval regulations and processes for major projects are highly complex and involve a number of stages. There is a vast quantity of legislation and regulatory instruments that may apply to major projects. Approvals may be needed in relation to land acquisition, land-use and access (including zoning), planning, environmental regulations (covering pollution, waste management, habitat and biodiversity, fauna and flora and threatened species), Indigenous and non-Indigenous heritage, native title and public health and safety.

There are also different regulatory pathways that can be applied, depending on the nature of the project. Such complexity largely reflects the intrinsic nature of major projects and is a challenge that all parties to a major project have to manage.

Some of the current complexity stems from the involvement of all three levels of government. While the States and Territories have the primary role, the Commonwealth is responsible for matters of national environmental significance and local governments also have a role, mostly relating to secondary approvals (for example, permits for road closures or temporary housing).

There is substantial scope for improvement

The Commission found that the building blocks of a sound regulatory system are already in place for Australia. Indeed, when Australia's development assessment and approval processes were compared with practices in Canada, the United States and the United Kingdom, none of these countries stood out as performing better overall than Australian jurisdictions. In fact, on some aspects, other nations look to Australia as a model.

However, there is substantial scope to improve Australia's major project approval processes. The Commission has proposed a comprehensive reform agenda. Presiding Commissioner Jonathan Coppel said 'Implementation of reforms is essential if Australia is to secure the full benefits of major projects and remain an attractive destination for investment, while protecting its environmental, heritage and cultural assets'. The Commission's proposals build on previous reviews and would strengthen arrangements in five main areas.

Better achieving regulatory objectives

Clear and consistent regulatory objectives that encapsulate the preferences of the community are a prerequisite for a well-functioning regulatory system. The Commission recommends that governments identify where objectives are vague, inconsistent or ambiguous, and set about to make them clearer. Where policy objectives conflict with each other, governments should provide clear guidance on how each should be weighed. In addition, there is an opportunity to better meet policy objectives through increased use of Strategic Assessment, which can reduce the need for project-level assessment and lead to better environmental outcomes.

Reducing regulatory overlap and duplication

Overlap and duplication of regulatory processes is one obvious source of unnecessary regulatory burden. Responsibilities for matters such as environmental protection span all levels of government. This gives rise to overlap and duplication that the Commission considers can be greatly reduced without risking the quality of environmental outcomes. Proposed reforms would establish a 'one project, one assessment, one decision' framework for environmental approvals.

Improving regulatory certainty, transparency and accountability

Project proponents and other stakeholders raised concerns about a lack of regulatory certainty and transparency. The Commission has proposed a suite of reforms that focus on early consultation and guidance, separating policy and regulatory functions and adopting review mechanisms that promote transparency and accountability.

Improving time frames and coordination

To improve timelines for approvals, the Commission is proposing greater use of fixed maximum timelines during both the assessment and approval stages. A further reform is the introduction of 'major projects coordination offices' to proactively guide the multitude of approvals required through the relevant agencies and increase transparency.

Reducing compliance costs

The main compliance costs relate to fulfilling approval conditions and offsets, and the administrative costs of monitoring and enforcement. In these areas, the Commission sees opportunities for risk-based and outcome-focused regulation to reduce unnecessary costs.

Major project development assessment processes: Summary of the Commission's draft recommendations

Better achieving regulatory objectives

- Review legislative and regulatory objectives to make them clearer and more concise, and to remove unnecessary objectives.
- Using Strategic Assessments where they can be an effective tool to reduce project assessment costs and account for cumulative impacts.
- Enhanced engagement of stakeholders and public participation in development assessment and approval processes.

Reducing regulatory overlap and duplication

- Establishing a 'one project, one assessment, one decision' framework for environmental approvals, by strengthening and adopting bilateral assessment and approval agreements between the Commonwealth and States and Territories.
- Cooperative arrangements between regulators within a jurisdiction for joint or substitute assessment processes.

Improving regulatory certainty, transparency and accountability

- Institutionally separating environmental policy from regulatory and enforcement functions in all jurisdictions.
- Greater transparency in the process for setting terms of reference for environmental impact statements and in-principle support for pre-application meetings.
- Binding criteria for determining which regulatory pathway will apply to a project (with limited ministerial discretion to 'call-in' projects)
- Requiring that approval authorities publish reasons for their approval decisions and conditions for all major projects.
- Allowing judicial review where a Minister approves a project and limited merits review for decisions not personally made by a Minister.

Improving timeframes and coordination

- Adopting a coordination office model to advise proponents on statutory requirements, to coordinate and facilitate assessment and approval processes and to track and report on progress against timelines.
- Setting statutory time limits for the assessment and approval decision stages (with clear triggers and limits for 'stop the clock' provisions for regulatory decisions).

Reducing compliance costs

- Better targeted and administered conditions and offsets.
- Establishing different levels of assessment that are matched to project risks and impacts.
- Use of risk-based strategies for monitoring and enforcing compliance with approval conditions and enhanced reporting of related procedures.

Major Project Development Assessment Processes

> Draft Report

> Released August 2013

Current commissioned projects

4 September 2013

Access to Justice Arrangements – *Public Inquiry*	
Issues paper September 2013 Draft report April 2014 Final report September 2014	Contact: Alan Raine 02 6240 3304 Email: access.justice@pc.gov.au www.pc.gov.au/projects/inquiry/access-justice

Geographic Labour Mobility – *Commissioned Study*	
Issues paper July 2013 Draft report December 2013 Final report May 2014	Contact: Anthea Long 03 9653 2162 Email: labour.mobility@pc.gov.au www.pc.gov.au/projects/study/labour-mobility

Import of Processed Fruit Products – *Public Inquiry*	
Issues paper July 2013 Accelerated report prior to 20 September 2013 Safeguard report December 2013	Contact: Alex Maevsky 03 9653 2230 Email: fruit.safeguards@pc.gov.au www.pc.gov.au/projects/inquiry/fruit-safeguards

Import of Processed Tomato Products – *Public Inquiry*	
Issues paper July 2013 Accelerated report prior to 20 September 2013 Safeguard report December 2013	Contact: Stewart Turner 03 9653 2218 Email: tomato.safeguards@pc.gov.au www.pc.gov.au/projects/inquiry/tomato-safeguards

Regulator Engagement with Small Business – *Commissioned Study*	
Issues paper January 2013 Draft report July 2013 Final report September 2013	Contact: Colin Clark 02 6240 3256 Email: small.business@pc.gov.au www.pc.gov.au/projects/study/small-business

Major Project Development Assessment Processes – *Commissioned Study*	
Issues paper February 2013 Draft report August 2013 Final report December 2013	Contact: Clare Sibly 03 9653 2118 Email: major.projects@pc.gov.au www.pc.gov.au/projects/study/major-projects

Mineral and Energy Resource Exploration – *Public Inquiry*	
Issues paper December 2012 Draft report May 2013 Final report September 2013	Contact: Bill Henderson 02 6240 3216 Email: resourceexploration@pc.gov.au www.pc.gov.au/projects/inquiry/resource-exploration

National Access Regime – *Public Inquiry*	
Issues Paper November 2012 Draft report May 2013 Final report October 2013	Contact: Andrew Barker (03) 9653 2170 Email: accessregime@pc.gov.au www.pc.gov.au/projects/inquiry/access-regime

Log on to the Commission's website www.pc.gov.au for full details of all current projects.