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INDUSTRY COMMISSION

ANNUAL REPORT 1992–93

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The Honourable George Gear, MP
Assistant Treasurer
Parliament House
CANBERRA ACT 2600

Dear Minister

We submit to you the Commission's Annual Report for 1992-93, in accordance with section 45 of the *Industry Commission Act 1989* and subsections 25(6) and 25(7) of the *Public Service Act 1922*.

Yours sincerely

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CHAPTER ONE

INCREASING AUSTRALIA'S ECONOMIC GROWTH

Australia has the knowledge and the resources to achieve the rapid and sustained growth needed to improve living standards and to make real inroads into unacceptably high levels of unemployment. But we need to improve the operation of the Australian economy quickly if we are to make the most of the opportunities that are available to us. This means both stepping up the progress on existing reform and extending reforms to new areas. A key issue is to remove the institutional blockages to reform that are preventing a better functioning of Australia's federal system of government. More than ever, Australia needs to establish a national approach to resolving truly national problems.

Sustained rapid growth in the Australian economy is essential if we are to improve our standard of living and tackle urgent problems, especially high levels of unemployment.

Sources of growth

Growth overseas — will it help?

More than a decade ago, the Commonwealth Government recognised that Australians could only secure a better long-term future by opening the economy to the rest of the world and confronting the challenges and opportunities in global markets.

With a more open economy, world economic conditions and Australia's ability to improve its productivity performance are of critical importance for our prosperity.

Recovery in the major developed economies should revitalise traditional markets for some Australian exports. Sustained strong growth in East Asian economies presents further opportunities both now and in the future. Much of East Asian growth involves massive spending on infrastructure development and increased demand for services such as finance and tourism which Australia is well placed to supply.

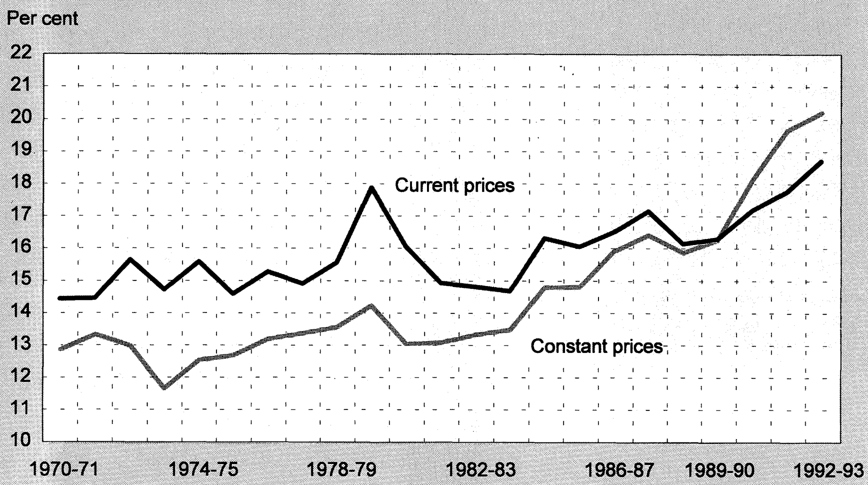
However, many countries, especially in East Asia, have demonstrated an ability to generate impressive productivity improvements, making their growth a two-edged sword for Australia.

Box 1.1
Australian exports and market share

Australia's export performance has improved: but a number of other countries are doing even better.

The Australian economy has become more export oriented over the past decade (Figure 1.1). While Australia's world ranking as an exporter of services increased from 23 to 20 over the decade to 1990, its ranking as a merchandise exporter fell from 18 to 22. East Asian countries in particular lifted their merchandise export performance strikingly to now lead Australia in terms of world importance (Appendix C).

Figure 1.1
Australia's exports of goods and services as a percentage of GDP, 1970–71 to 1992–93



Source: ABS Cat no. 5204.0, 5206.0

On the one hand, other countries' growth could be expected to fuel their demand for imported inputs, consumer items and services. This should benefit Australian exporters. Australian consumers could also benefit as productivity improvements overseas reduce the prices of goods imported into Australia.

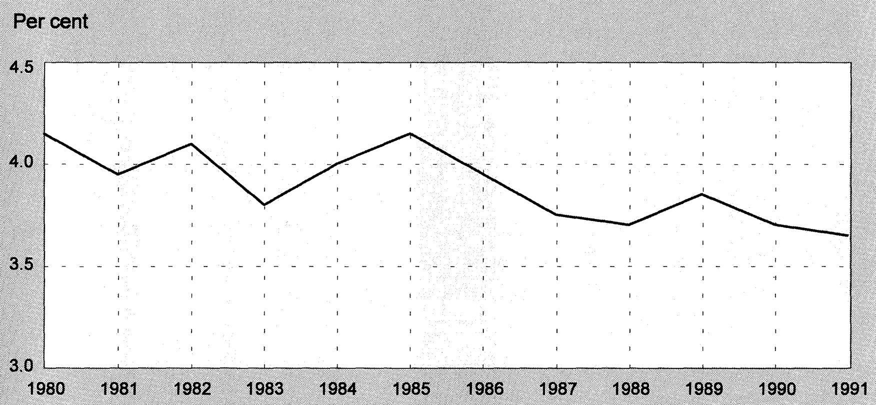
On the other hand, strong productivity growth by other countries reduces Australia's competitiveness in some markets, especially in manufactures. That at least takes the edge off our export growth potential although to some extent this could be offset by real exchange rate movements.

Australia's export orientation has increased markedly since the mid-1980s and our importance in

Box 1.1 (continued)

Two-thirds of the increase in Australia's exports between 1985 and 1991 went to East Asia. While impressive, Australia has not shared fully in the dynamic growth in the region. Much of the growth in demand in Asia has been met by increased imports and exports from within Asia. Australia's share of the value of East Asian imports has actually declined (Figure 1.2).

Figure 1.2
Australia's share of imports by East Asian economies



Source: Asia-Pacific Economics Group (1993)

There are a number of possible reasons for this loss of market share. The most obvious are: a decline in the prices of the goods we export relative to other goods imported into East Asia; a change in the composition of East Asian imports away from the goods and services we export; an inability of Australian firms to keep up with the growth in demand; and a decline in competitiveness of Australian goods and services (Appendix C).

world trade as an exporter of services has also increased. However, we have been overtaken in importance (by some East Asian countries) as merchandise exporters .

Although East Asian growth has been very good for Australia, it could be even better. While two-thirds of the increase in Australia's exports has gone to East Asia, our overall market share in those economies has declined (Box 1.1). Improved productivity is essential if Australia is to lock into the potential that Asian and other world markets provide.

The competitive challenge for Australia is being accentuated by the increasing international mobility of financial capital. Not only are Australian firms competing to match price and quality on world product markets, they must also compete to attract capital to finance investment. For firms, investment in Australia becomes more attractive as productivity increases and unit costs of production are lowered. Unless Australia continues to be

Box 1.2
Productivity and capital flows

The way in which capital flows heighten the sensitivity of the Australian economy to our relative productivity performance is illustrated in Appendix A with simulations of the Salter model. Salter models Australia's trade links with other regions of the world. Like any model, it simplifies reality, but it can assist policy makers to understand more clearly the direction and implications of certain economic changes.

A continuation of Australia's low rate of productivity growth compared with our competitors would diminish our growth prospects. According to the model, those prospects would be far worse if international capital mobility remains high as international investors seek out more competitive production locations. International capital mobility linked with low productivity growth makes it harder to reduce unemployment.

On the other hand, the model illustrates that if capital flows are very responsive to differences in international productivity, and if Australia raises its rate of productivity growth even modestly relative to that of its competitors, our economy would grow much more quickly and we would be able to make much more significant inroads into unemployment. The modelling exercise highlights that in a world of increasingly mobile capital, Australia needs to at least narrow the gap in its productivity performance compared with our competitors. This is because productivity growth enables us not just to capture market share and so allow exports to grow faster than overall world growth, but also to attract a greater share of capital upon which to build our productive base.

attractive to foreign and domestic investment by continuing to improve our productive capability, the movement of capital to other countries will eventually erode the productive base of the economy.

An improvement in Australia's productivity performance and investment climate will therefore promote growth and employment not only through capturing an increased share of domestic and world markets, but also through securing more investment capital. This would create the possibility of a virtuous cycle of growth as new investment itself potentially stimulates further productivity improvements (Box 1.2).

While Australia will undoubtedly benefit from any pick-up in world growth, there is also a challenge to improve productivity at home so that Australian firms can take full advantage of the opportunities as they arise. The lessons from 'new' growth theories can help our understanding of the processes most likely to encourage economic growth in the medium to longer term.

Lessons from 'new' growth theories

In response to the slowdown in growth in developed economies there has been renewed interest in the determinants of long-term growth. The quantity and quality of resources devoted to education and training, research and development (R&D), and investment (including in infrastructure) have long been seen as fundamental to technological progress and hence productivity and long-term growth. These activities stimulate new knowledge and information that can speed up the rate at which new technologies and processes are spread, thereby raising productivity and growth. The link between these factors and growth has been formalised in the so-called 'new growth theories'.

These theories, which have in fact been evolving over the past 40 years, focus on explaining the dynamic processes operating in an economy. In particular they focus on the medium-term linkages between investment, R&D, education and training and the productivity and competitiveness of the economy. They do not offer solutions to short-term fluctuations in economic activity.

The theories have helped to galvanise agreement about the preconditions for sustained growth. They raise many issues which must be tackled to ensure that Australia is doing all it can to achieve the sustained lift in productivity and growth that is necessary. Efficiency in the provision of education and

Box 1.3
Growth, productivity and jobs

Structural reforms and higher productivity can mean doing more with fewer people. That leads some people to ask how increasing productivity will actually create jobs. The fact that high unemployment has persisted despite some improvement in growth seems to justify the pessimism.

While productivity improvements can mean employment losses in affected areas they are, over time, essential to the increased wealth and growth in output that will provide more jobs in the future (Appendix I).

A distinction can be made between the firms experiencing productivity gains and other firms.

- If those firms enjoying productivity improvements maintain existing output they will employ fewer people. But, if they become more competitive as a result of the productivity improvements, they can decrease prices and increase sales – and may maintain or even increase the number of people they employ.
- Other firms can benefit from those productivity improvements by buying cheaper inputs. That makes their goods and services more competitive and affordable and allows them to expand production and increase their employment levels.

In the longer run, improved productivity will make investment more attractive as the financial return on the investment increases. As discussed in the text, that sets up the possibility of a virtuous cycle between investment, productivity and growth.

Effective competition is a vital part of this story. It can keep costs down and ensure that the benefits are passed on to consumers and other industries. Maintaining competitive pressures ensures that hard-won productivity gains lead to lower prices and this contributes to the economic growth which is so important to increasing jobs and living standards for all Australians.

Of course, there needs to be concomitant growth in demand. Having the best and cheapest product is of no use unless someone is willing and able to buy it. Seeking out new markets and ensuring better access to overseas markets is therefore essential.

Many countries with high productivity growth have maintained relatively high rates of employment growth. This is certainly true in East Asia (Appendix C). A recent study by EPAC has shown that, for OECD countries in the 30 year period to 1991, there has been a strong negative correlation between growth in labour productivity and unemployment (EPAC 1993, p.20).

Unemployment may occur where labour markets and work practices are not sufficiently flexible to allow people to move between jobs and locations and to give employees the necessary skills to operate in higher productivity work places. The solution is to ensure that impediments to the efficient operation of labour markets are addressed directly. If the search for higher productivity is held back by concerns about job losses in certain sectors of the economy, this will ultimately be self defeating as productivity across the economy is retarded.

training, R&D and capital investment is vital to growth. These issues are taken up below.

However, the theories are not yet sufficiently refined and empirically supported to offer a consensus on specific priorities for government action. In that practical sense, as yet they offer little that is new. Nor do they offer easy or immediate options to stimulate growth domestically (Appendix B).

If Australia is to make the best use of investments in R&D, education and training, plant and equipment and infrastructure, the economy must be flexible enough to take advantage of the growth opportunities that those investments will generate. New growth theories do not point to substitutes for ongoing structural reform of the economy. But they do give new emphasis to areas that are part of it.

Structural reform — an ongoing process

The Commission's investigation of overseas prospects and new growth theories indicates that there are no quick fixes to Australia's pressing economic problems — now or in the future.

The policies needed to step up the attack on Australia's economic problems involve a mix of both macroeconomic and microeconomic initiatives. But the effectiveness of macroeconomic policies relies on a foundation of a more flexible and productive economy created through ongoing structural reform. For example, structural reform — especially reform of labour markets — is essential to tackling unemployment (Box 1.3).

Because the world keeps changing, the need for structural flexibility and adjustment is ever-present. The opening up of Eastern Europe, rapid growth in East Asia and formation of economic and trading alliances are presenting threats and opportunities to the Australian economy. Even when current challenges are resolved, others are certain to emerge.

The imperative for Australia is to press ahead with structural reforms that can raise national productivity, while ensuring that the burden of adjustment does not fall unduly on the few. The community has a responsibility to ease the burden of hardship which some individuals — particularly the unemployed — face because of changes that have the potential to benefit all Australians in the longer term. This is reflected in increased expenditure on retraining and welfare programs. As the Commission pointed out in its last Annual Report, the social problems and economic waste of high unemployment must be tackled as a priority, but in a way that does not bring new problems in the future.

There have been important reforms

Fundamental reforms have been made over the past decade by all tiers of government. They have helped to guide Australia towards a more flexible, outward-looking economy. Floating the currency, financial deregulation and substantial trade liberalisation were threshold reforms in this regard. Company taxation has been substantially reformed. Efforts have been made to introduce mutual recognition of regulation between Commonwealth, State and Territory jurisdictions. Significant first steps have been taken by the Commonwealth, States and Territories to improve telecommunications, transport and energy infrastructure, the flexibility of labour markets and aspects of environmental management and regulation. (For details on recent reform efforts see Appendixes L, M and N).

Many of these reforms have been held in place in difficult circumstances. For example, the Commonwealth Government has resisted strong pressures to retreat from its program of gradual tariff reductions, despite the recession and a widespread but mistaken belief in the community that tariff reform has been a major contributor to unemployment (IC 1992d, Chapter 1).

The reforms are producing benefits

Reforms are producing discernible gains. They have reduced prices and costs to many industries and consumers (Box 1.4). However, the gains are not always in the form of lower prices. For example, putting government business enterprises on a more commercial footing has meant some price increases, but it has also lifted returns to taxpayers (admittedly from a low base) and led to a more efficient use of the community's scarce resources (Appendix K).

Structural reform is one factor that is contributing to the broad restructuring which is underway in the Australian economy (Box 1.5).

There have been some setbacks and frustrations

Considerable though the reform achievements have been, much more remains to be done. The task of substantially increasing Australia's productivity growth is too important to allow opportunities for significant gains to pass.

Box 1.4
Further examples of the benefits from reform

- The Steering Committee on National Performance Monitoring of Government Trading Enterprises (covering 50 GTEs) reported that costs and prices have been reduced across a wide range of sectors including electricity, telecommunication, gas, ports and post. Over the five years to 1991–92, real output prices of the GTEs covered decreased by 4 per cent. Electricity authorities improved labour productivity by 60 per cent and decreased real prices by 6 per cent. Port authorities increased labour productivity by 88 per cent and reduced prices by 20 per cent. Other examples of improved performance include:
  - The Queensland Electricity Commission increased labour productivity by 46 per cent, passing the benefit on to consumers by reducing prices in real terms by 14.8 per cent.
  - Australia Post increased labour productivity by 12 per cent while increasing its return on assets to 11.5 per cent, to the benefit of all taxpayers.
- Waterfront reform since 1989 has seen labour costs reduced by $240 million, ship turnaround time improved 19 per cent and stevedoring charges reduced by 20 to 25 per cent. As well, containers handled per crane hour increased by 46 per cent and handling rates for general non-containerised cargo improved between 40 and 60 per cent.
- The introduction of competition into the telecommunications industry has helped cut long-distance telephone rates. AUSTEL has calculated that the charge for a 5 minute call between Sydney and Melbourne decreased by between 14 and 23 per cent in the year to June 1993.
- In March 1993 domestic airfares were 28 per cent lower in real terms than before deregulation of domestic aviation.
- Determinations by the NSW government Pricing Tribunal for the Sydney Water Board will mean that the cross subsidy of over $300 million from business to residential users will be reduced by $60 million in 1993–94.
- Mutual recognition of regulation legislation has been enacted in most Australian States and Territories. Producers and consumers in these States are set to benefit from the creation of a wider market for goods. Producers can reduce costs by avoiding the need to make and stock product variants required in the past to meet different State regulations. Consumers gain from increased competition and wider choice.

The pace of reform in some key areas has been frustratingly slow. For example, implementation of national rail and electricity systems has been slower and more troublesome than hoped. Some States have been slow to enact mutual recognition of regulation legislation, denying their populations considerable benefits (Box 1.6).

The setbacks are not just in high-profile areas. While the last decade has been a period of substantial reform in many key areas, they have not been successfully extended to some other areas. A web of regulation continues to retard growth and job prospects and imposes unnecessarily high administrative and compliance costs on industry. For example, the development of important markets to serve consumer demand for vitamin and mineral-enriched foods is being stifled by regulation, any benefits of which are uncertain. The National Food Authority has

Box 1.5
Restructuring and contributions to growth

The structure of the Australian economy has changed substantially over the past decade. These changes are the result of naturally occurring and policy-induced factors. In common with other industrially advanced countries, the services sector has outgrown other sectors (Appendix D). Moreover, the economy is becoming more trade-oriented. Over the last decade, the volume of exports as a share of GDP grew from 13 per cent to 20 per cent. Similarly, imports as a share of gross national expenditure grew in volume terms from 15 to 19 per cent (Appendix E).

The composition of Australia's exports has also changed. Australia is now a net exporter of merchandise. This is a significant change. Exports from the mining and mining-related manufacturing sectors and exports of services (eg. telecommunications, education and tourism) have grown strongly, with real annual growth averaging 8 and 7 per cent respectively over the 6 years to 1992–93. Exports of other highly transformed manufactures (eg motor vehicles, machinery and equipment) have also increased strongly, averaging 16 per cent real growth per annum over the same period.

Many industries that have sustained increases in exports have benefited from industry-specific government assistance and general assistance programs. Export assistance provided by the Commonwealth Government alone was worth over $1 billion in 1992–93 (Appendix O). The net benefit to the community from these exports is not yet known since benefits need to be compared with the costs.

In addition, some of the increase in exports may have been a response to weak domestic demand (Appendix F). But there is some risk that as demand in Australia increases, firms will switch their focus back to domestic markets, which have historically been the most important source of growth. The challenge for Australian firms is to hold on to newly acquired export markets and at the same time meet increasing domestic demand.

Box 1.6
Examples of setbacks and frustrations in reform

- The delay (until July 1995) in the establishment of the national electricity grid will be of significant cost to the community, even though the benefits of other reforms in the sector are coming through.
- The opportunity to introduce further reform of the Australian sugar industry has been missed. Retention of compulsory acquisition and price pooling will be a brake on further expansion of the sugar industry and thus prevent further job growth and limit Australia's export revenue.
- A worrying development in the reform process itself is the Government's use of industry-based task forces as the last input into the decision-making process. The task force report on assistance to the sugar industry was not made public before a Government decision was taken.
- The Commonwealth Government has reversed its earlier policy to restrict the new development allowance to projects with an "absence of any substantial assistance or protection" by introducing legislation to extend the allowance to the highly-assisted motor vehicle industry. The estimated budgetary cost is $28 million over the period until 1996–97.
- There have been delays in enacting mutual recognition of regulation legislation in South Australia and Western Australia — imposing a cost upon those States and others.
- The lag in reaching an enterprise agreement between National Rail and rail unions meant expenditure on rail infrastructure (specified in the One Nation statement) has been delayed. The Commonwealth Government had stipulated that it was not prepared to release funds until the rail industry had reformed.

proposed new standards to limit vitamin and mineral fortification of products which will see the need for manufacturers to reformulate well-known brands such as Nutri Grain and Special K (Appendix M).

Major new blockages demand a better reform process

A striking feature of the reform process to date is that, as one reform has been undertaken, it has revealed further rigidities that, when tackled, hold the prospect of further productivity gains.

Opening up the Australian economy has created pressures to improve the rest of the economy — including the efficiency of services like transport and energy — to remove any unnecessary burden on the trade-exposed sectors. The need to change management and work practices and wage-determination processes that were a legacy of an inwardlooking culture is now seen as critical to the successful internationalisation of the economy.

Another stumbling block has become increasingly evident. The implementational difficulties discussed above and the Commission's recent inquiry experience point forcefully to the difficulties that Australia's federal system of government brings in promoting reforms that call for a co-operative approach between governments. Reforms that are in the interest of Australians generally are being confounded, delayed or minimised by narrower interests of the Commonwealth, States and Territories.

There is currently a deal of goodwill within all jurisdictions to press on with reform. The commitment extends beyond tokenism. There are many examples of beneficial reform undertaken by all State, Territory and Commonwealth governments acting independently.

But the biggest sticking points arise where implementation of reform requires co-operation between Australia's various governments. In such instances it is understandable that individual governments will look to their own interests; individual States can be made worse off at least in the short-term by participating in reforms that are in the clear

Box 1.7
Commonwealth-State blockages — an illustration

Progress in achieving a more competitive and efficient electricity sector in Australia provides a powerful illustration of the problem of forging co-operation among Australian governments on broader, national initiatives. Individual States have gone a considerable way towards raising efficiency in their own jurisdictions. For example in New South Wales, Pacific Power has been restructured into separate profit centres to allow for competitive bidding between generating units for the supply of electricity. Victoria is to separate the generation, transmission and distribution sectors of its power industry to improve overall productivity and competitiveness.

Yet substantial further benefits remain to be achieved from the development of a national electricity grid. A National Grid Management Council has been established to oversee its establishment by July 1995 (which is later than originally intended). However, to be truly effective in developing a competitive market in electricity and ensure efficient supplies for Australian businesses and consumers, the clear separation and independent ownership of all the transmission assets of the various State and Territory authorities is essential. To date, the unpreparedness of some States to agree to this ownership separation is denying the full benefits of reforms to others.

interests of Australians generally. The problem is that without the involvement of all, growth prospects in Australia generally, including in its constituent States and Territories, are being held back (Box 1.7).

While the source of many benefits, our federal system of government can in some areas impose costs on the community. This has been recognised by all governments and worthwhile attempts have been made to foster a greater degree of co-operation. Establishment of the Council of Australian Governments (COAG) for example, provides a forum for resolving important national issues between heads of government. Another positive step was the commissioning of the Hilmer review of National Competition Policy, which has considered a range of possibilities for encouraging economic reform across jurisdictions (Appendix M).

But there is a demonstrable need to produce better outcomes. Australia must consider all options to bring about more rapid reform. The nation cannot afford to consign substantial areas of reform and productivity gain to the 'too-hard basket'.

One option is greater use of a system of qualified majority voting for some issues at COAG meetings. This was done in the 1991 Heads of Government agreement to introduce nationally consistent road regulations and improved charging for heavy vehicles. In relation to mutual recognition of regulations, Ministerial Councils are to resolve disputes over anomalies and determine minimum standards on the basis of a two-thirds majority which is binding on all States, Territories and their authorities.

Such an option would facilitate solutions which trade off winners and losers from different reforms. For example, some States might be willing to give ground in the area of electricity reform if they could see gains were achievable for them in transport reform. At the moment, the method of resolving these issues discourages such trade-offs across major issues.

Unquestionably, there will be no easy solutions. There are major institutional issues to be addressed. Improving industry competitiveness and growth prospects requires all tiers of government pulling in the same direction. The productivity challenge facing Australia is too great to allow it to be otherwise.

A broad agenda for reform to accelerate growth

Many of the reforms in place, or in the process of implementation, were initiated some years ago and efforts need to be reinvigorated to meet the future productivity challenges. There are new areas to be tackled. Some of the key areas are discussed below.

Labour markets

Further and faster labour market reform is central not only to industry competitiveness and accelerating economic growth but also to reducing unemployment. The Prime Minister has pointed to the slow progress in implementing genuine enterprise bargaining throughout the economy.

The Commission's inquiry experience has shown that benefits have flowed to companies and public authorities that have been able to use the flexibility now available in the system. For example, its forest products inquiry revealed that Australian Paper Manufacturers has instituted reforms that have led to greater production efficiencies flowing from better-trained employees and more tightly staffed shift operations. The Federal Timber Industry Award has provided a clear focus for enterprise-based consultative committees to vary existing award conditions, on site, and subject to certain conditions, without further reference to the Industrial Relations Commission.

Flexibility in the current system has, however, been unevenly exploited. As managers and workers become more aware of the flexibility within the system and, with experience, more adept at negotiation, there should be additional productivity benefits.

Further benefits are to be gained by increasing competition and flexibility in the labour market. There is evidence that impediments to direct negotiation of agreements between employers and employees at the enterprise level are holding back productivity gains and development. During its inquiry into impediments to regional industry adjustment, the Commission has frequently heard in country areas that the scope for negotiations based on local circumstances are heavily constrained by arrangements struck at the national level. This is retarding regional development. Direct negotiation and agreement between management and employees as a group (with or without unions) is essential to achieve the flexibility and responsiveness needed to cope with rapidly changing local requirements.

Provision of social services

Much is to be gained from ensuring that all areas of social services are delivered efficiently as part of Australia's drive to accelerate economic growth.

Social infrastructure such as schools, hospitals and public housing are as much a part of the productive economy as manufacturing, mining or agriculture. Apart from providing valuable social and economic inputs, a large part of the nation's resources are tied up in social infrastructure. For example, the Commission's inquiry into public housing has revealed that the current value of Australia's public housing stocks is about $30 billion, and the Commonwealth Government alone spends over $2 billion a year on rent assistance and public housing. With so much at stake, even modest reforms can produce big gains to the community in areas like this.

The Commission's inquiry experience is pointing to ways in which social equity objectives can be met more efficiently and at lower cost — which can mean that valuable resources are freed up for other priority uses. For example, benefits could be had from separating management of the public housing stock (construction, purchase, asset management, repairs and maintenance) from the provision of welfare services. These are issues that need to be tackled by all tiers of government.

Governments must continually seek ways to ensure that other welfare programs (such as income support for the unemployed) are well targeted, delivered in a cost-effective and efficient manner and are consistent with the underlying goals of increased living standards and employment. They need to be effective in preserving workers' skills and getting people back to work quickly. Any unnecessary inefficiencies in social service provision can place a heavy burden on taxpayers, misdirect payments from where they are most needed and diminish growth prospects in the economy generally. These issues will need to be addressed by the Commonwealth Government's Committee on Employment Opportunities.

The agreement reached at the 1993 Premiers' Conference for a review of Commonwealth and State services provision is a positive step toward more efficient service delivery. It will allow benchmarking comparisons of performance and an assessment of various methods of service provision. Benchmarking is a valuable tool. It is a first step that can help to identify levels of performance in one system — say in management and work practices — that if adopted widely can reduce costs. Governments need to explore ways to provide financial incentives to increase efficiency of service provision. In this way quality can be maintained or improved with fewer calls on limited funding and resources.

Economic growth through investment in human and physical capital

As discussed above, new growth theories point to the importance for economic growth of R&D, education and training, investment in production facilities and infrastructure.

Research and development

Research and development is a vital source of the knowledge necessary for innovation and technological progress.

The case for government involvement in R&D is well established where research effort creates spillover benefits that cannot be appropriated by those undertaking research; that is, where the initiator does not receive sufficient of the rewards. Indeed governments are now active players in and supporters of research activity. For example, Commonwealth expenditure on R&D is estimated to have been around $3 billion in 1992–93.

However, the desirable nature and scale of government involvement is still unclear. For instance, it remains contentious how far down the chain to commercialisation of products government action should reach, and how best to strike a balance between industry-specific assistance and that available to industry generally. The Commission will be examining such issues in its forthcoming major review of R&D.

It is important to recognise that market demand and competition between firms for market share provide a powerful stimulus to innovation. This has been well established for some time. For example, as long ago as 1966, Schmookler analysed almost 1 000 major inventions in four industries around the world between 1800 and 1957. His findings showed that the stimulus for invention in these firms was largely in response to economic pressure and the opportunity to raise profitability (Schmookler 1966).

To be effective in raising growth, government R&D policies must be delivered in the most efficient way possible. This is never easy. Since 1990, CSIRO has been using a promising method of setting research priorities which recognises that research proposals have to compete for limited funds. The method involves focusing on the commercial attractiveness of particular research to Australia and the feasibility of achieving research success (IC 1993e). On the other hand, the Commission found in its review of one element of the government innovation program — the National Procurement Development Program — that while it benefited grant recipients, it did not in its existing form seek out community-wide benefits that could justify public subsidies.

Education and training and economic growth

It is increasingly recognised that investment in the knowledge and skills of the workforce (human capital) is a crucial determinant of the innovativeness and competitiveness of firms and of growth in the national economy itself. There is clearly a role for government in education and training, regardless of the strength of the links between education and growth. Society as a whole benefits from having a higher standard of literacy and numeracy than would result if education were left entirely to individuals.

Major changes have been initiated in education and training by all tiers of government in Australia in recent years. The level of educational attainment, retention rates in full-time education and TAFE enrolments have all increased. Apprenticeship completions have increased over the past five years, although numbers in 1991–92 were below those in 1985–86. Total expenditure on education in Australia as a percentage of GDP has risen significantly and is now comparable to the OECD average.

It is by no means clear, however, that government involvement in these activities is at a level or operates in a way which maximises Australia's growth potential. The performance of Australia's education and training system at all levels, and the appropriate mix between secondary, tertiary, vocational and technical training programs, need to be regularly assessed from this perspective.

The value of expenditure on the various sectors of education and training also needs closer scrutiny by all levels of government. Average costs of public education differ significantly between the States. However, whether and how that translates to differences in the quality of educational outcomes is not readily discernible.

The Training Guarantee Levy is one initiative of the Commonwealth Government that mandates minimum contributions to training from medium and large firms. It seeks to redress the tendency for individual firms to underinvest in generic training for their employees when they cannot get a sufficient return themselves.

Yet the efficacy and efficiency of a compulsory levy can be questioned. One recent study concluded that the levy is a blunt instrument for achieving its objectives and has recommended a move away from compulsion and penalties to allowing industry organisations to levy members and provide generic training to all member firms (Clare and Johnston 1993a). The cost of such initiatives to firms and to government demands ongoing evaluation to ensure that they are meeting their objectives and to determine whether those objectives could be better achieved by other means.

New growth theories point to the benefits of a highly skilled and flexible workforce, particularly at the level of the firm. Labour market rigidities and regulations can diminish the incentives that firms have to provide appropriate training to their employees. For example, minimum wages can prevent workers from accepting low wages during a period of on-the-job training and thus may be denying workers training opportunities and higher wages in the future. The incentive for firms to provide training would be increased if they had flexibility to immediately use enhanced skills to raise productivity, unencumbered by inappropriate accreditation procedures and outdated demarcation lines.

The role of plant and equipment and infrastructure investment in stimulating economic growth

The slow growth in and increasing age of the capital stock in Australia does not lay a foundation for sustained growth (EPAC 1993, p. 65). However, new investment must be soundly based. The quality of that investment counts as much as its level.

Some of the empirical work on growth theories supports a link between investment in plant and equipment or infrastructure and faster national growth. The argument put forward is that investment by firms in some types of plant and equipment may generate benefits external to those firms in terms of a more rapid diffusion of new technology. But it is as yet unclear whether, or the extent to which, these effects occur across all industries and whether government support might be required to encourage optimal amounts of those investments. At this stage, understanding how the links operate at the firm level remains speculative. Neither theory nor the Commission's own experience can pinpoint rules to help policy makers to discriminate as to whether, or where, assistance should be provided to accelerate economic growth.

What is clearer is that the overall efficiency of the existing capital stock can be raised. Any regulatory or labour market impediments which discourage or limit the most efficient use of existing capital stock must be removed.

In addition, governments are directly involved in the provision of a substantial proportion of Australia's infrastructure. The Commission's inquiry experience has strongly indicated that structural reforms in areas of government provision of infrastructure such as water, ports, post and public housing can significantly improve the use of existing capital, reduce the need to augment capital in the future and thus free savings to be used in other productive investments.

Conclusion

There is clearly a broad agenda of reform still to be tackled by all governments in Australia which will increase Australia's productivity and the potential for increasing economic growth. As these reforms are fully implemented, others will emerge. Achieving the productivity gains required for Australia to grow and prosper demands a shared effort, shared rewards and a sharing of the inevitable adjustment costs. Governments at all levels need to work more closely to tackle these issues.

What must be accepted at all levels of government is that economic reform is ongoing. It is often tough to implement but it is critical to the welfare of all Australians.

CHAPTER TWO

OPERATIONS OF THE COMMISSION

This chapter details the operations of the Commission over the last year, including the inquiry program, general reporting and research, and management of the Commission.

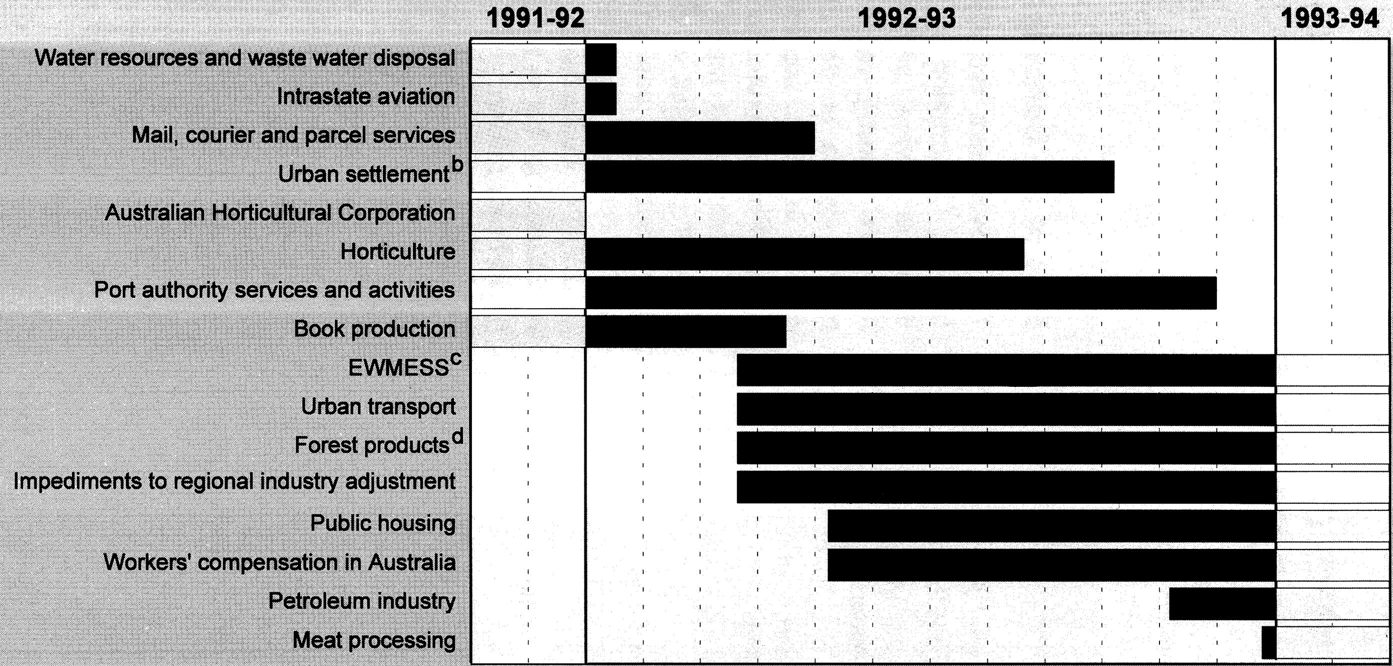
Role of the Commission

The Government established the Industry Commission in 1990 as its major review and advisory body on industry matters. The reform agenda at the time had moved in large measure from issues of border protection (tariffs and quotas) to a much broader range of issues that affect costs, productivity and competitiveness in the economy generally. The Industry Commission was established to be a catalyst for broad-based reform.

Three key features characterise the Commission's operations.

- It is an independent advisory body. The Commission operates as a statutory authority through the provisions of the *Industry Commission Act 1989* rather than as part of direct Ministerial and departmental responsibilities.

Figure 2.1
The Commission's 1992–93 inquiry program[a]



a An inquiry commences when the terms of reference are received and is completed when the final report is signed.
b Taxation and financial policy impacts on urban settlement.
c Environmental waste management equipment systems and services.
d Adding further value to Australia's forest products.

- It is open and public. The Commission conducts public inquiries and provides opportunities for public participation in, and scrutiny of, government policy.
- It has an economy-wide approach to policy issues. The Commission has a set of policy guidelines (see below) that direct it to formulate recommendations that serve the broad community interest and not just the interests of particular groups.

The Commission fulfils its role in a number of ways. Principally it conducts inquiries into industries, activities and issues referred to it by the Government. Many of these inquiries are broad-ranging — involving, for example, substantial areas of transport, energy, communications and other aspects of economic infrastructure. There is also a general reporting function. The Commission has a statutory obligation to report annually on the economic performance of industry and the principal factors affecting that performance, and on the nature and impact of assistance and regulations affecting industry.

The Commission performs its functions under a set of policy guidelines (s.8 of the Act). Specifically, the Commission is required to have regard to the Government's desire to:

- encourage the development and growth of Australian industries that are efficient in their use of resources;
- facilitate adjustment to structural changes in the economy and to ease social and economic hardships arising from those changes;
- reduce regulation of industry where this is consistent with the Commonwealth Government's economic and social policies; and
- recognise the interests of industry, consumers and the community likely to be affected by measures proposed by the Commission.

The Commission's inquiry reports are presented to the responsible Minister, who is then obliged to table them in Parliament and release them to the public. Governments are not obliged to adopt Commission recommendations.

Through the Commission's inquiry program, governments are able to:

- signal areas that are to be considered for reform;
- ensure consistent and open consideration of industry policy matters;

- obtain objective and impartial policy advice that serves the national interest;
- canvass a number of policy options to assess their feasibility;
- stimulate community debate in advance of detailed consideration of policy proposals;
- gather views from a wide range of people and submit information, analysis and suggestions to public scrutiny;
- gauge reaction to policy proposals and submit that reaction to public scrutiny; and
- create an information, analytical and policy base for subsequent government action.

In May 1992, the Treasurer sought to further enhance the role of the Commission by introducing a new reference category, Industry Development References (IC 1992d, Chapter 3). These references are designed to identify strengths and weaknesses, as well as impediments to growth, of particular industries that are thought to have reasonable prospects in an environment of lower tariff assistance.

Inquiry program

In 1992–93, the Commission completed eight reports which covered a broad range of microeconomic reform and industry policy issues (Figure 2.1). These issues included:

- decoupling the linkages between the raising and spending of levy funds in the report on the Australian Horticultural Corporation (Box 2.1);

Box 2.1
Decoupling levies in the Australian Horticultural Corporation (Report No. 24)

As part of the Horticultural inquiry, the Government requested an interim report on the operations of the Australian Horticultural Corporation (AHC).

The Commission found that many of the AHC's activities have the potential to improve the competitiveness of the horticultural sector. However, it questioned whether the AHC's status as a monopoly provider of services financed by levies on growers was in the best interests of efficiency. The Commission proposed that levy funds used for programs requested by the contributing industry should be paid directly to that industry, with no obligation on the industry to engage the services of the AHC. Because of disparate regional characteristics of many parts of the sector, the Commission also proposed that levy funds be devolved to regional industry bodies.

Box 2.2
Infrastructure pricing and patterns of urban settlement
(Report No. 30)

Since the beginning of European settlement, Australia has been a highly urbanised society. Typically, Australian cities have developed at relatively low densities and occupy large land areas.

Concerns about the social, environmental and other effects of urban expansion have focussed attention on the efficiency with which city growth is being managed. There are also concerns about the ability of the providers of public infrastructure services to find the resources necessary for continued expansion.

The Commission found a range of policies which prevent prices for urban infrastructure services from accurately reflecting the costs incurred in their provision, as well as regulations and taxes (such as stamp duty) which impede land use patterns from responding flexibly over time to changing community needs.

However, the Commission's analysis did not confirm claims that there were large incentives for urban sprawl through infrastructure pricing.

The Commission's analysis focused on the extent to which subsidies for infrastructure differ for urban fringe locations as opposed to established areas. While data are often poor or not available, a detailed study of water services in Melbourne and Sydney could not confirm a significant inducement to fringe location.

In other cases, such as public transport, energy and social infrastructure, it was found to be difficult to judge whether net subsidisation is likely, let alone the magnitudes involved.

- pricing of lumpy and long-lived assets in the Water resources and waste water disposal report, and infrastructure pricing generally in the Urban settlement report (Box 2.2);
- the alleged subsidisation of urban sprawl through infrastructure pricing in the Urban settlement report (Box 2.2);
- the appropriate corporate environment within a government business enterprise to promote maximum efficiency and competition in the report on Port authority services and activities;
- the effects of deregulation and pricing of airport services in the Intrastate aviation report;
- objectives of efficiency and sustainability in the Water resources and waste water disposal report (Box 2.3); and

- the scope for exposing government business enterprises to greater competition in the Water resources and waste water disposal report (Box 2.3) and in the Mail, courier and parcel services report (Box 2.4).

The Commission seeks to encourage participation by all interested parties in its inquiries. It gives wide publicity to an inquiry, receives public submissions and holds public hearings in most capital cities and country areas as required. A draft report is released for public comment before a final report is submitted to the Government. Public submissions allow interested parties to place, on the public record, their views on issues being addressed by the Commission, while public hearings allow these issues to be discussed in an open forum.

The Commission collects information and draws on expertise from a variety of sources in addition to the public submissions and hearings. These include industry visits by Commissioners and staff, workshops (generally of a technical nature), secondments of

Box 2.3
Efficiency and sustainability in water resources and waste water disposal (Report No. 26)

Water used by households accounts for around 10 per cent of water use in Australia. Most of the remainder is used to irrigate crops and pasture.

Salinity and waterlogging are major problems in many irrigation areas. Outbreaks of blue-green algae have highlighted the adverse impacts of nutrient contamination of rivers and water storages. In urban areas, there are problems with reducing the environmental impacts of the disposal of sewage, trade waste and stormwater, whilst keeping charges at a reasonable level.

Undercharging for water and waste water disposal has been a major contributor to many water-related environmental problems. But policies of cost recovery need to be tied in with other policies to promote sustainable water use. The twin goals of efficiency and sustainability *can* be brought closer together.

The Commission recommended better pricing of water and waste water disposal services to ensure that scarce water is not wasted and to promote better environmental outcomes. Improved pricing would also provide a better guide as to the timing and nature of investment in water and waste water disposal works. While these reforms would mean increased prices for many water customers, higher returns on the community's investments would reduce calls on other sources of revenue. The Commission also recommended the allowance of tradeable water rights in irrigation.

Box 2.4
Promoting competition within statutory monopolies — Mail, courier and parcel services (Report No. 28)

Australia Post has, with some exceptions, a statutory monopoly on the right to carry letters. This monopoly has been considered necessary to allow Australia Post to meet the Commonwealth Government's social objective of providing everyone in Australia reasonable access to a letter service at a uniform postage rate (presently 45 cents).

There is considerable private involvement in related postal services, in particular, courier and parcel services. But the efficiency of these services is affected by Australia Post's activities. The Commission therefore examined ways to improve the efficiency and quality of services provided by both public and private sector operators.

The Commission found that, to get the full benefits of a dynamic, flexible and innovative industry, the legislative environment in which the services are provided needed to be changed so as to allow greater competition.

As its preferred approach, the Commission recommended that the Government replace the uniform postage rate with a 'maximum affordable' charge by Australia Post for standard letters. Australia Post's monopoly over the letter service would then be abolished. No one would have to pay more than the maximum charge (initially 45 cents). But many people would pay less, especially in the capital cities, as prices for lower-cost services fell in response to competition.

If the idea of a maximum charge were not immediately acceptable to the Government, the Commission recommended some other changes to increase the competitive pressure on Australia Post; notably, reducing the minimum amount which other providers must charge to carry a letter (presently $4.50).

The Commission also recommended ending Australia Post's exclusive right to carry international letters.

staff with backgrounds in specific subjects, and hiring consultants to undertake detailed analysis of particular subjects within an inquiry. In addition, the Government frequently appoints Associate Commissioners with particular expertise to help conduct the Commission's inquiries.

The evolution of the Commission's work program has led to far greater involvement with the States and Territories in recent years. Much of the Commission's recent and current work concentrates on matters which have an impact at a State and regional level; for example, rail, intrastate aviation, energy and water, public housing, urban public transport, workers compensation, and impediments to regional industry adjustment.

The Commission's inquiry program will continue to be broad-ranging, as is reflected in the forward work program (Box 2.5). It covers economic infrastructure, social infrastructure, regulation, industry adjustment and specific industry development references (IDRs). The Government is due to announce the Commission's forward work program through to mid 1995 later in 1993.

Box 2.5
Inquiries on the forward work program from 30 June 1993 to 1994

- Research and development
- Defence procurement
- Charitable organisations
- New materials and alloys (Industry Development Reference — IDR)
- Tourist accommodation and training (IDR)
- Strategies for improving the efficiency of public sector agencies
- Private sector infrastructure funding
- Strategies for improving Australian business management
- Sustainable land management including soil conservation
- Review of progress on rail reform
- Motor vehicle and marine insurance and repair industries
- Impediments to local industry supplying goods and services to the resources industry
- Optical prescription, manufacturing and dispensing industries
- Further processing of Australia's metals (IDR)
- Fibre processing (IDR)
- Medical and scientific equipment (IDR)
- Biological technology industry, including genetic patenting (IDR)
- Telecommunications systems and equipment (IDR)
- Uniquely Australian products (IDR)

The Government announced (30 June 1993) that it will be sending the Commission a reference on the Tobacco industry.

Government decisions

Final responsibility for determining industry arrangements, based on Commission recommendations, rests with Commonwealth, State and Territory governments. In May 1992, the Treasurer announced that the Government would seek to explore new ways to achieve greater involvement by the States and Territories (IC 1992d). These would include establishing agreed processes for consideration and, where appropriate, joint consideration of Commission reports by the Commonwealth and the State and Territory Governments and seeking an undertaking from them to announce responses within a reasonable timeframe.

The Government has been reviewing the procedures for releasing and acting upon Commission reports.

General reporting and research

The Commission has a general reporting function, which requires it to report on investigations into assistance, regulation and other industry matters. Other functions include a general research program to underpin both inquiries and general reporting.

The Commission published a working paper on the measurement of effective rates of assistance in Australia (Plunkett *et al* 1992), and a discussion paper on pro-competitive regulation (IC 1992f) during the year. Papers and speeches are prepared for conferences, workshops and seminars. The Commission also prepared a submission to the Hilmer review into National Competition Policy.

Annual Report

The Annual Report is the major vehicle by which the Commission comments generally on industry policy matters and publishes the results of much of its research. It is the centrepiece for the Commission to meet its general reporting obligations and objectives.

The obligations (under s. 45 of the Act) cover reporting on the performance of industry (Appendixes C to I of this report), and reviewing regulation (Appendix M) and assistance (Appendixes N to S).

Office of Regulation Review

During 1992–93, the Office of Regulation Review (ORR) advised the Structural Adjustment Committee of Cabinet on all important new regulatory proposals on its agenda. These included the prudential supervision of non-bank financial institutions, the regulation of broadcasting and telecommunications, and environmental matters.

The ORR also administered the Regulation Impact Statement process for submissions going before Cabinet with a significant regulatory impact on business.

The ORR prepared submissions to the Senate Standing Committee on Legal and Constitutional Affairs' inquiry into Product Liability reform, and the National Food Authority Review. It also provided advice and feedback to regulatory agencies on various matters, including ozone protection regulation, bus safety standards, and product labelling (Appendix M).

Assistance evaluation

The Commission continued to monitor and measure assistance provided to the manufacturing and agricultural sectors. Updated estimates of assistance provided to these sectors are shown in Appendix S.

The assistance estimates are supported by a more detailed analysis of assistance provided to exports (Appendix O), documentation of budgetary outlays to industry (Appendix P), State government budgetary outlays to the agricultural sector (Appendix Q), and an analysis of anti-dumping action (Appendix R).

The Commission also assisted the secretariat of the Development Allowance Authority to develop a methodology for the calculation of nominal and effective rates of assistance. From time to time assistance was also provided to the Authority on assistance measurements for individual cases.

Modelling

The ORANI model of the Australian economy is an important element of the Commission's analytical capacity. This model is used to illustrate the effects of proposed changes to government assistance or other policy initiatives; for example, removing impediments to the growth prospects of the forest products industry. The Commission also used ORANI to provide analysis to Treasury as a follow-up to its raw materials pricing report. The Commission undertook its own enhancements of the ORANI framework by further developing a version that recognises adjustment costs in investment.

The Commonwealth Government (through the Commission) continues to support the development of computable general equilibrium frameworks by the IMPACT Project Research Centre and the Centre of Policy Studies at Monash University. The Monash model will be a significant further development of the ORANI framework. It is designed to improve the capacity to analyse the evolution of the economy over time and the effects of economic decisions on the environment.

The Commission continued the development and documentation of Salter, a multi-country model of world trade sponsored by the Department of Foreign Affairs and Trade. The model is designed to take account of production, consumption and trade patterns around the world and to analyse the economic effects of alternative trade liberalisation scenarios.

The Commission used the Horridge model (developed by the Centre of Policy Studies at Monash University) of transport and locational choice within Melbourne in the course of its inquiry into Urban settlement. It also developed the model further by allowing for choice between transport modes and for the time cost of urban travel. The enhanced version of the Horridge model is being used in the Commission's inquiry into Urban transport.

The Commission was represented on an interdepartmental working party which undertook an assessment of the impacts of the greenhouse response actions outlined in the draft National Greenhouse Response Strategy (1992). The Commission prepared an assessment of the draft National Greenhouse Response Strategy's energy supply measures, drawing on relevant knowledge gained through its inquiries into Energy generation and distribution and the Costs and benefits of reducing greenhouse gas emissions. The working party's final report was presented to the National Greenhouse Steering Committee.

National Performance Monitoring

Heads of Australian Governments agreed to the continuation of the Steering Committee on National Performance Monitoring of Government Trading Enterprises (SCNPMGTE). Each State and Territory and the Commonwealth is represented on the Committee, which is chaired by the Chairperson of the Industry Commission. The Commission also provides the secretariat and a research capability for the Steering Committee.

During 1992–93, the Committee focussed on preparing a report on GTE performance indicators, which was released on 12 August 1993 (SCNPMGTE 1993). The suitability of the current indicators and the widening of the study to cover more GTEs will be reviewed by expert groups before the next study is undertaken. It is intended that data on the performance of GTEs will be collected and published each year.

The Steering Committee has also initiated work on the treatment of community service obligations, the estimation of total factor productivity (TFP), the calculation of economic rates of return (ERR), and the valuation of assets. This work is intended to improve existing performance indicators and develop more useful measures. It should be completed and publicly released over the next few months.

The Industry Commission is also continuing its own research and inquiry work on calculating economic performance indicators for GTEs, and updating earlier estimates of TFP and ERRs.

Relations with other agencies

The Commission maintained its contact with Commonwealth government departments and other economic research agencies during 1992–93. In particular, this involved the Australian Bureau of Agricultural and Resource Economics, the Bureau of Industry Economics, the Bureau of Transport and Communication Economics, the Economic Planning Advisory Council, and the Trade Practices Commission. Furthermore, numerous departments and agencies at both the Commonwealth and State levels made submissions and provided data and research support for inquiries.

Consultation with the States

With the increasing focus on State issues, the Industry Commission and individual State and Territory Governments have moved to improve their communications. During 1991–92, the Chairperson of the Commission met with Premiers and Chief Ministers. Those meetings were repeated this year, along with a more extensive consultative forum involving State and Territory government departments.

The objective of these meetings was to exchange information of mutual interest. They presented an opportunity for the Commission to provide information on its inquiry program, and to gain a better understanding of reform and implementation issues facing different jurisdictions. Furthermore, the consultations with the State and Territory governments provided opportunities to discuss priorities for the Commission's forward work program.

Management of the Commission

Move to Melbourne

Following the announcement in May 1992 of the Commission's relocation to Melbourne, the Treasurer announced in April 1993 that the Commission will also retain a presence in Canberra, involving about a third of the Commission's staff.

The Melbourne office is being progressively built up. It opened in November 1992 at temporary accommodation in the Rialto North Tower. By June 1993, staffing totalled 44, comprising four inquiry teams and associated support staff.

Melbourne office staff will double to around 90 by early 1994, following the opening of the Commission's permanent accommodation in Collins Tower in December 1993. The office should be fully established by June 1995 when staff numbers reach 155. The bulk of the corporate support staff will be located in Melbourne.

Growth in the Melbourne office will be offset by a reduction in Canberra staff to around 70 by June 1995. The Canberra office will have the capacity to conduct four inquiries and associated research, and will include the Office of Regulation Review. As part of the contraction of the Canberra office, the Commission will examine options regarding its longer term accommodation requirements in Canberra.

Performance-based pay

Senior Officer Grades A, B and C first became eligible for performance-based pay during 1992–93. The scheme calls for senior officers to enter into a performance agreement with their supervisor and to undergo performance appraisals at six monthly intervals. The appraisals provide a performance rating which determines the level of performance pay. Officers receive the same payment for the same rating, but there are varying amounts for different ratings.

Administrative matters

Appendix T contains further information on the administration of the Commission, including:

- summary financial information;
- structure;
- staffing; and
- Commission appointments.

Evaluation of performance

The Commission has highlighted in previous Annual Reports its commitment to evaluating its performance in reporting to government and in managing its resources. That commitment continued in 1992–93.

Evaluation of the Commission's reports

The Commission continuously monitors views about its reports in a number of ways. There are consultations as part of the inquiry process with government, industry, union and consumer groups. In addition, staff monitor public and media reaction to issues papers, workshop and conference papers, and inquiry draft reports. In 1992–93, there was a specific assessment of the Annual Report.

Annual Report readership review

The Commission conducted a review among readers of the 1991–92 Annual Report (Appendix V). The review attempted to gauge the impact of the report and obtain views on how to enhance its quality and make it more useful to readers. Responses were sought from a range of government, industry, academic and consumer groups.

The responses indicate that readers found the Annual Report made an important contribution to the policy debate and was a useful source of statistical and reference material. Some specific suggestions from respondents have been followed up.

Evaluation of management performance

The Commission seeks to provide an environment which enables staff to optimise productivity within an overall budget allocation. To assess its effectiveness, the Commission reviews the performance of different areas within its operations on a rotating basis and surveys staff to determine how well they believe they are being managed.

Review of the Office of Regulation Review

As part of ongoing efforts to ensure efficient operations within the Commission, the management and organisational procedures of the Office of Regulation Review were assessed during the year (Appendix M). It was carried out by an external reviewer, with support from the Commission.

Recommendations included that the ORR be retained within the Industry Commission, that more effort be devoted to an educative role in the formation of regulations, that more resources be devoted to research on areas of particular regulatory importance, that a Commissioner with specific responsibility for regulation review policy be appointed, and that fewer resources be devoted than currently to the provision of comments on Cabinet submissions. The Commission plans to consider the review in detail after the release of the Hilmer review into National Competition Policy.

Management performance survey

As part of the Commission's ongoing program of management improvement, all available Commissioners and Senior Executive Service officers participated in a program 'Managing People for Performance'. The program consisted of an evaluation of existing relationships between managers and their teams as revealed by the responses to a questionnaire filled out by managers and their staff. The questionnaire was followed by discussion and workshops designed to improve individual and organisational performance through the more effective management of staff.

> The Commission wishes to thank its staff for their continued efforts, dedication and support during what has been a particularly difficult year.

Increasing Australia's economic growth

A Assessing the impact of competitive pressures on Australian industry using the Salter model

B The contribution of new growth theories

APPENDIX A
ASSESSING THE IMPACT OF COMPETITIVE PRESSURES ON AUSTRALIAN INDUSTRY USING THE SALTER MODEL

The economic performance of countries in East Asia and elsewhere poses both promise and challenge to Australia. The promise comes in terms of additional demand for our exports as these economies grow. The challenge comes from their increased competitiveness, especially through productivity improvements.

The Salter model provides a framework for exploring these links. An important message is that highly mobile international capital flows will have a crucial bearing on Australia's future. With internationally mobile capital, any deterioration in Australia's productivity performance compared with other countries makes us a less attractive place in which to invest and compounds the difficulties in reducing unemployment. Conversely, if we at least narrow the gap in our productivity performance, mobile capital will make the task of reducing unemployment easier.

Australian trends in growth, employment and industrial composition are the net result of internally generated developments as well as those occurring overseas. This makes it difficult to assess the extent to which these trends can be influenced by domestic policy actions. The Salter model of the world economy can illustrate separately the impact on Australia of developments at home and developments in other countries.

There are many factors that affect growth in other countries and not all of these are beneficial for Australia. Some developments overseas can pose a competitive challenge. Productivity gains in other countries can improve their competitive position, and even growth in their populations can pose a challenge if it constrains their real wage growth. Competitive forces can pose an additional challenge through capital markets, by making other countries relatively more attractive destinations for investment. The threat is to Australia's prospects for employment growth. However, domestic action to improve competitiveness can attract investment and put people back to work.

Putting people back to work will be difficult but, if capital is highly mobile, it may not be as difficult as some commentators have suggested. One way to create jobs is by restricting real wage growth (as occurred in the mid-1980s). Another is by faster productivity growth. Both could make Australia a more attractive destination for investment, yielding an additional bonus. With very responsive capital flows, the positive influence of attracting capital would allow us to make faster inroads into unemployment than would otherwise be the case.

The Salter model

Salter is a computable general equilibrium model of the world economy originally developed by the Commission for the Department of Foreign Affairs and Trade. It models the production and consumption patterns for 37 separate industry/commodity groups in 16 regional economies.[1] It also shows how the 16 regional economies are linked through trade, modelling how production, consumption and trade patterns throughout the world would adjust to change via the responses of relative prices and regional incomes.

Like all models, Salter simplifies reality in a number of ways. For example, it does not model tourism well. Nominal exchange rates are assumed to be fixed, although the model allows changes in wages and other production costs to affect real exchange rates. The model is designed to produce projections of the impact of policy changes at some single point of time in the future. Such projections would show how future levels of production, consumption and trade in each regional economy would differ from what they would otherwise be. The model has only a limited treatment of dynamics, a treatment also designed for comparative static

1 The regional economies covered in the model are Australia, New Zealand, Canada, the United States, Japan, the Republic of Korea (hereafter Korea), the European Community, Indonesia, Malaysia, the Philippines, Singapore, Thailand, the People's Republic of China (hereafter China), Hong Kong, Taiwan and the Rest of the world.

policy analysis. Further, the method by which growth trends are examined in this appendix is relatively simple.[2] The model is nevertheless able to track the recent experience of overall GDP growth in Australia and overseas reasonably accurately.

Simulating productivity and labour force growth

The main sources of GDP growth in the model are growth in labour, growth in capital and growth in total factor productivity (sometimes called technical change).

Salter is like other neoclassical models in that it does not explain how improvements in total factor productivity occur. It can nevertheless assess how changes in total factor productivity, either in Australia or elsewhere, affect our relative economic performance.

Nor does Salter attempt to explain the growth of labour supply. But Salter can assess the impact on the Australian economy of labour supply growth both here and overseas.

Unlike some neoclassical models, Salter makes provision for unemployment, so that growth in the labour force need not translate one for one into growth in employment. The approach here is to allow employment growth to keep in step with labour force growth. Real wages in each economy are assumed to adjust if necessary to ensure that this occurs.

The final source of GDP growth in an economy is growth in its capital stock. The Salter model makes allowance for the way capital is accumulated in each regional economy and how it can move between

2 The model's results measure percentage deviations between a 'business as usual' base case at some point in the future and an alternative state of the economy at the same point in time. The current exercise compares a base case of no growth in population and technology with an alternative case of population and technology growth. The overall supply of capital in the future should be the sum of two components. The *momentum* component would measure capital accumulation through time resulting from positive net investment in the base case (no growth in population or technology). The *response* component would measure how changes in income lead to changes in saving, investment and the capital supply in the alternative case relative to the base case. The comparative static treatment of capital accumulation is designed to measure the response component while excluding the momentum component, but for short-term growth projections both components are relevant.

economies over the longer term. In the model, the world capital stock will grow in response to total factor productivity growth or increases in labour supply — both of which would tend to boost the profitability of capital — but is constrained by the pool of world savings available for investment purposes. The model assumes constant private and government savings rates in each economy.

The world capital stock is allocated between industries and regional economies in the longer term so as to eliminate abnormal returns to capital. The implication is that capital is assumed to be perfectly mobile internationally. The model keeps track of the extent to which capital growth in each economy can be financed from domestic savings, or whether the economy also needs to borrow externally. The additional capital from overseas adds to productive capacity, but the foreign debt service payments are deducted from GDP in order to measure national income, that portion of the returns from activity retained by the residents of that economy.

Table A1 shows the trend annual employment growth recorded throughout the world over the period 1980 to 1991, along with estimates of total factor productivity growth in each economy.[3] The employment growth estimates are averaged over a relatively long period so as to reflect trends in population growth (including migration) and participation rates, rather than year-to-year cyclical influences. The longer-term employment trends are therefore taken to be good representations of trend growth in the labour force of each economy.

3 Employment growth for most regions was calculated from ILO (1992). For the EC it was calculated from OECD (1992c) and for Taiwan from Council for Economic Planning and Development (1990). Employment growth in the rest of the world was proxied by employment growth for the industrial countries from IMF (1992). For New Zealand, employment data prior to 1986 was taken from OECD (1992c), for Indonesia prior to 1985 population estimates from IMF (1992) were used, and for Thailand for the years 1989 to 1991 population estimates from IMF (1992) were used. Total factor productivity estimates for Australia, New Zealand, Japan, and the EC were from Englander and Mittelstadt (1988). Other sources were Rao and Preston (1983) for Canada, Kendrick (1992) for the United States, Kim and Park (1985) for Korea, Ikemoto (1986) for Indonesia, Malaysia and Thailand, Austria (1992) for the Philippines, Kim and Lau (1992) for Singapore and Hong Kong, Li, Gong and Zheng (1992) for China and Ho (1992) for Taiwan. The value for the rest of the world was chosen judgmentally based on World Bank (1991) estimates that productivity growth has been negative in Africa and Latin America, but positive in a broad group comprising Europe, Middle East and North Africa.

Table A1
Labour force and total factor productivity growth (per cent)

Economy	*Labour force growth*[a] *1980–91*	*Total factor productivity growth* *Period of estimation*	*Estimate*
Australia	1.86	1979–86	0.50
New Zealand	0.01	1979–86	0.60
Canada	1.29	1974–80	-0.04
United States	1.48	1981–90	0.90
Japan	1.27	1979–86	1.70
Korea	2.78	1963–82	3.14
European Community	0.48	1979–90	1.30
Indonesia	3.04	1975–80	1.80
Malaysia	3.34	1975–80	1.80
Philippines	2.73	1950–87	-0.51
Singapore	3.23	1964–88	-0.60
Thailand	2.87	1975–80	1.70
China	2.91	1979–90	2.53
Hong Kong	1.87	1959–88	1.30
Taiwan	2.59	1981–89	5.15
Rest of the world	0.62	1973–87	0.00

a Labour force growth is proxied by trend annual employment growth. The employment estimates for Indonesia, Malaysia, the Philippines and Taiwan are for the period 1980–90.

Source: See footnote 3

Measuring total factor productivity growth is typically subject to a number of limitations in data and method. For most economies, several different sources of estimates for total factor productivity growth could be found. The particular estimates recorded in Table A1 were chosen either because they were thought to be the most reliable, or because they were relatively conservative and therefore likely to be more representative of longer-term trends. They are not always the most recent estimates available. They can be taken as indicative of historical productivity performance in the longer term, rather than necessarily being precise.

Table A1 records negative total factor productivity growth for several regions. The negative estimate recorded for Canada is a weighted average of estimates for separate industrial sectors, which show that Canada's poor overall productivity performance was largely the result of negative productivity growth in Canadian agriculture and mining. Englander and Mittelstadt (1988) also report negative overall productivity growth for Canada of -0.3 per cent. The negative productivity estimate for Singapore is supported by Young (1992), who argues that Singapore's rapid GDP growth has been generated largely by growth in capital and labour inputs whereas Hong Kong's rapid GDP growth has been generated more by growth in productivity. Kim and Lau's (1992) estimates for these economies are nevertheless chosen in preference to Young's because they are more conservative.

The estimates for several other economies deserve comment. Available productivity estimates for China varied widely, from -4.2 per cent for the 1980–84 period (McGuckin *et al* 1992) to 6.2 per cent for the 1981–89 period (Ho 1992). It is likely that China's productivity growth has indeed varied over time. The figure shown in Table A.1 was estimated over a relatively long time period and was considered to be the best indicator of sustainable longer term trends.

The productivity growth estimate for Taiwan is not the most conservative that could be found, but it was felt that the alternative estimate of 1.3 per cent from Kim and Lau (1992) probably underestimated Taiwan's productivity growth relative to other economies. Nevertheless, Taiwan is the only economy for which the Salter model projections of overall growth exceed the true historical average. In all other economies, the growth projections undershoot the historical average but, as noted, are reasonably close.

The estimates in Table A1 show the forces for growth that might be expected, abstracting from cyclical upswings as economies recover from recession and assuming productivity trends of the past are repeated in the future. Based on these, the Salter model can provide estimates for each economy of the corresponding trend growth in real GDP, capital stocks, and so on. Salter can also be used to separate Australia's trend growth in real GDP into the component arising from its own trend labour and productivity growth and that arising from labour and productivity growth elsewhere, while taking account of the implications of this breakdown for growth in each economy's capital stock. This is how it is used to disentangle the effects of internally generated growth from the effects of growth in other economies.

Simulation results

The Salter model was used to simulate the impact of trend and labour force growth of the magnitude listed in Table A1. The results are shown in Table A2.

The model's estimate of 2.2 per cent for Australia's trend annual growth in real GDP (in the third column) compares with the growth of 2.6 per cent actually recorded in Australia over the period 1980 to 1991.[4] The first two columns of Table A2 show the impact on the Australian economy of productivity and labour force developments here (column 1) and elsewhere (column 2). Because the first two columns simply decompose the sources of Australia's overall trend growth, they add up to the third column by construction.

Impact of internal productivity and labour force growth

As modelled, domestic productivity and labour force growth are projected to improve Australia's competitive position. With labour and productivity growth here not matched by growth overseas, costs and prices would tend to fall relative to those overseas. Strong export growth would contribute to a balance of trade surplus, although at the cost of a decline in Australia's terms of trade. This decline is projected mainly through declines in the export prices for wool and coal, with smaller price declines for wheat, meat products and non-ferrous metals. These are commodities for which Australia has a significant share in at least some segments of the world market.

4 The actual growth figure comes from IMF (1992). In producing the growth projections, the total factor productivity growth estimates for each economy have been introduced into the model as uniform improvements in the productivity of all primary factors — labour, capital and land — in all industries in that economy. The exception is in Canada where the sector-specific estimates that underlie the overall figure of Table A1 have been used directly. The results are not sensitive to the assumption that total factor productivity growth affects the productivity of all primary factors. An alternative growth scenario in which overall total factor productivity growth was assumed to affect only the productivity of labour in each economy produced results very close to those in Table A2.

Table A2
Impact on Australia of domestic and international productivity and labour force growth[a] (per cent)

	Impact of productivity and labour force growth		
	Australia	*Overseas*	*Combined*
National accounts			
Real national income	1.86	0.26	2.12
Real GDP	2.38	-0.19	2.19
Real national consumption	1.86	0.27	2.13
Real investment	2.14	-0.39	1.75
Export volume	3.51	-0.28	3.22
Import volume	0.90	1.29	2.19
External account (% of GDP)			
Balance of trade	0.29	-0.08	0.21
Net interest income from abroad	-0.31	0.11	-0.20
Net capital inflow from abroad	0.02	-0.04	-0.01
Primary factors			
Labour employment (by assumption)	1.86	..	1.86
Capital stock	2.14	-0.67	1.47
Prices			
GDP deflator[b]	-1.07	-0.01	-1.08
Consumer price index[b]	-0.92	-0.14	-1.06
Export price index[b]	-0.90	-0.05	-0.94
Import price index[b]	..	-1.20	-1.20
Terms of trade	-0.89	1.15	0.26
World real bond rate	..	0.06	0.06
Real wage	0.34	-0.10	0.24
Sectoral output			
Agriculture	1.99	0.50	2.49
Mining and other primary	3.75	0.08	3.84
Manufacturing	3.09	-1.05	2.04
Services	2.25	-0.16	2.09
Sectoral exports			
Agriculture	1.52	1.46	2.97
Mining and other primary	4.45	0.89	5.34
Manufacturing	4.06	-1.13	2.93
Services	3.80	-0.90	2.89

.. Less than + or -0.005.

a All variables measured as percentage changes, except for the external account variables which are measured in percentage points worth of GDP and the world real bond rate which is measured in percentage points.

b Prices measured relative to the world average factor price index, the numeraire chosen for the model.

Source: Salter model projections

An improved competitive position would also make Australia an attractive place in which to invest. The investment is projected to add to Australia's productive base. Not all the investment would be financed internally. An increase in net capital inflows explains the projected rise in net interest payments overseas as Australia would incur more debt service payments to foreigners.[5] Overall, domestic labour and productivity growth is projected to contribute to a net capital inflow (implying a corresponding current account deficit).

The productivity improvements and induced capital inflow would allow employment growth to be accompanied by an increase in real wages. But the overall growth in real national income would be smaller than the growth in real GDP, reflecting the increased debt service payments to foreigners.[6]

At the sectoral level, output growth from the model would be stronger in mining and manufacturing than in agriculture and services. Agricultural expansion is somewhat constrained by the assumed fixed supply of agricultural land, but would also be discouraged by the decline in export prices, particularly for wool. However, this terms of trade decline is projected to encourage further domestic downstream processing of agricultural products into manufactured goods, since Australia would have the potential to increase its share of the world market for these goods more easily. A similar increase is projected to occur in downstream processing of mineral products, although less at the expense of exports and output of the unprocessed products.

These factors in turn explain why the growth of agricultural exports is projected to be lower than the growth of agricultural output. They also help to explain the relatively more favourable growth projection for the manufacturing sector, where the downstream processing of the agricultural and mineral commodities would take place.

Overall services sector output growth would be constrained because of the importance of government services and ownership of dwellings — industries whose fortunes are tied to the growth of national consumption

5 The model assumes bonds are the only financial instrument traded internationally.

6 Real national income is defined as net national product (gross national product net of depreciation) deflated by the national (household plus government) consumption price index.

spending. Nevertheless, services export growth is projected to exceed services output growth, largely because of a projected increase in exports of trade and transport services and of private services such as advertising, consulting and data processing. The model does not capture any increases in expenditure on domestic services such as accommodation brought about by an increase in tourism.

Impact of external productivity and labour force growth

By contrast, productivity and labour force growth elsewhere in the world is projected to be detrimental to activity levels and GDP in Australia, though not to our national income. Productivity and labour force growth elsewhere unmatched by increases at home would certainly yield Australia a terms of trade gain and significantly raise Australia's exports of agricultural and mining products to particular destinations. This accounts for the projected overall growth in agricultural and mining output. For example, growth in China and the ASEAN countries would increase their imports of Australian wheat, growth in Japan and Korea would increase their imports of Australian coal and other minerals, growth in the United States, the European Community, Japan and China would increase their imports of Australian wool and growth in Hong Kong and Taiwan would increase their imports of Australian non-ferrous metals (eg gold and aluminium).

However, productivity and labour force growth elsewhere would also pose a competitive challenge to Australia. Part of the challenge would occur in product markets. The forces for growth elsewhere would tend to lower costs and prices overseas, particularly for manufactured goods and services, relative to those in Australia. Where the growth created additional export opportunities in these areas, Australia would not share in the export growth if it had not matched the competitive gains elsewhere. Hence, overall Australian manufacturing and services activity is projected to decline. To the extent that Australia did share in the export growth, it would tend to be in areas where productive capacity in all other countries was particularly weak. Hence productivity and labour force growth elsewhere is projected to benefit Australian agriculture more than mining, because Australia tends to face less *global* competition in wool than in coal, and somewhat less in wheat than in iron ore.[7]

Productivity and labour force growth in other countries would generally tend to increase export opportunities. As other countries grow their total imports rise. But the effect is projected to be stronger in the more open and/or more specialised economies. While Australia is projected to be unable to share in growth elsewhere if it cannot remain competitive on price, the income effects in some of its traditional markets are also projected to be relatively weak. In large, diversified economies such as the United States and, to a lesser extent, Japan, much of the additional demand induced by internally generated growth can be met internally because their production and consumption structures are relatively closely matched. In these economies, the induced total import expansion is projected to be particularly weak. In the European Community total import growth is projected to be stronger, but much of it can be met from intra-EC trade.

Even without gains in local competitiveness, Australian aggregate exports and real GDP are projected to rise in response to internally generated growth in New Zealand, Canada, Japan, Korea, Malaysia, Singapore, Thailand, Hong Kong or Taiwan. However, they are projected to fall in response to internally generated growth in other regions, particularly in the United States, the European Community or the Rest of the world. The largest losses in Australia from growth in these economies are projected to occur in manufacturing industries such as footwear, transport equipment and other machinery and equipment.

Productivity and labour force growth elsewhere would pose a competitive challenge for Australia not just in product markets, but also in the global market for capital. In the longer term when capital is mobile, this would be at least as important a challenge. Productivity and labour force growth in the rest of the world is projected to make Australia a relatively less attractive destination for investment. Indeed, the model results suggest that

7 The model projections hold constant the major interventions affecting world trade. These include the price and income support measures affecting agricultural and food production in many economies (including the EC's variable import levies), the non-tariff barriers affecting coal in the European Community and Japan, the Multifibre Arrangement affecting world trade in textiles and clothing and the voluntary export restraints affecting Japan's exports of transport equipment to Canada, the United States and the European Community.

in the absence of increases in savings rates around the world, productivity and labour force growth elsewhere would in fact reduce the investment channelled into Australia and hollow out our productive base.[8] The increased demand for investment funds elsewhere is also projected to bid up world interest rates and increase the cost of operating capital in Australia. In the absence of matching productivity improvements at home, part of the loss in competitiveness from this source would be cushioned by the projected decline in real wages. Indeed, without such a decline, the reduction in overall activity would be greater and employment in Australia would be projected to fall.

While the higher required return on capital would increase its cost of operation, it is also projected to add to national income because most of our capital is owned by Australians. Higher capital income is projected to offset lower wage income, so that total factor income would be kept roughly constant in nominal terms. The projected growth in *real* national income comes about from two main sources. The first arises because Australians are projected to contribute to financing investment overseas. In the longer term, Australia's net debt to the rest of the world would be reduced, with a consequent reduction in debt service payments despite higher world interest rates. The second source of real income growth is a projected reduction in the consumer price index, driven in part by cheaper prices for imported manufactures.

Productivity and labour force growth in the rest of the world is therefore projected to make us richer, but not necessarily busier. The model suggests why Australia cannot look to growth in the rest of the world to accommodate real wage increases at home in the longer term, nor to cure our current unemployment problems in the shorter term. Productivity and labour force growth elsewhere also poses a competitive challenge to Australia. Since capital tends to be more internationally mobile than labour, Australian workers would inevitably bear the brunt of any

8 This model result is not sensitive to the mix of productivity and labour force growth overseas. When only labour force growth in other economies is modelled, unaccompanied by growth in their total factor productivity, the results are qualitatively similar to those in the second column of Table A2. Labour force growth elsewhere would increase the relative scarcity of capital, raising its relative profitability. Real wage reductions elsewhere would help to ensure the labour force growth was absorbed into employment, raising the absolute profitability of capital. Thus there is still a projected diversion of investment away from Australia.

additional challenge from overseas. In a world in which capital is mobile internationally, it would be the internally generated forces for growth that would attract the investment to put people back to work.

Accelerating growth

Historically, productivity and labour force growth in other economies has combined with our own productivity and labour force growth to produce the real GDP and real income performance we observe in the data. As noted, the projected trend GDP growth for Australia in the third column of Table A2 is close to the historical average. However, this trend growth is associated with employment growth that is assumed simply to match labour force growth. A major policy question currently is how to accelerate employment growth above its longer term trend.

The analysis so far suggests that Australia may not be able to do so by simply relying on faster growth in the rest of the world. Australia will need faster growth, but it will need to be generated at home.

One way is by restricting real wage growth below what would otherwise be achieved. Another way is by faster productivity growth. By now these principles are reasonably well accepted. In order to make serious inroads into unemployment over a reasonable time frame, the question remains as to how much of the first option would need to be taken (and how unpalatable it might be) or how much of the second option would need to be taken (and how realistic that might be).

In a recent comparison of employment trends between Australia and the United States, Gregory (1993, p.65) noted that

> If Australian unemployment had maintained its 1960s relationship with that of the US, the average unemployment rate would have been 2.7 per cent during the 1980s rather than 7.2 per cent... If real wages had not increased relative to the US over the 1966–76 period they would be 35 per cent less... In the absence of exceptional rates of technological change, there can be no prospect of real wage increases for a decade or so if Australian unemployment is to decline significantly ... the sheer magnitude of the adjustment of these crucial determinants of living standards *within this model* are sobering (emphasis in original).

But if higher total factor productivity growth or lower real wage growth were to yield an additional bonus by making us a more attractive place in which to invest, then at least some of the apparent difficulty of curing unemployment may be overstated. Indeed, additional results from the Salter model suggest that, with highly mobile capital flows and with total factor productivity growth remaining at 0.5 per cent a year, real wage reductions of only 0.2 per cent a year would be required to generate 4 per cent annual employment growth. This would be sufficient to reduce the unemployment rate to 7 per cent in two years and to 6 per cent in less than three. Alternatively, with real wage growth remaining at the level shown in the first or last column of Table A2, productivity growth would need to be raised to 0.8 per cent. As a middle course, employment growth could be raised to 4 per cent by holding real wages constant and raising our total factor productivity growth from 0.5 per cent a year to just over 0.6 per cent a year.

The model results certainly exaggerate the ease with which unemployment could be reduced because, over a two or three year period, capital would be less than perfectly mobile internationally (as assumed in Salter). But capital is equally not likely to be perfectly immobile over a two or three year period, so that real wage reductions or productivity improvements need not be the sole mechanism at work to reduce unemployment.

The truth is likely to lie somewhere in between. And with an additional bonus from even moderate productivity improvements or real wage restraint in the form of a better investment climate, Australia could make inroads into unemployment at a much faster rate than would otherwise be the case.

APPENDIX B
THE CONTRIBUTION OF NEW GROWTH THEORIES

There has been renewed interest in recent years in the longer-term determinants of growth. This appendix reviews the development of 'new' growth theories and attempts to draw out some of the policy insights. While the theories do not yet provide practical policy guidance on priorities for government intervention, nor spell out specific actions that governments should take, they do provide a reminder of the importance of education, research and development, and investment and infrastructure in establishing the conditions for growth.

There have been periods of strong economic growth throughout history, but it is only over the last two centuries that such growth has been relatively sustained in the industrialised world. Even then, the growth machine has at times faltered severely, with periods of economic contraction and considerable distress.

The realisation that growth rates in industrialised countries in the 1980s were considerably lower than in the 1950s and 1960s, and the apparent increase in the natural unemployment rate, has sparked renewed interest in trying to understand the driving forces behind growth, and whether governments can intervene to increase the rate of growth. Efforts to understand the 'engines' of growth have been formalised in 'new' growth theories.

This appendix explores these new growth theories a little further. The purpose is not to review the technical detail of the theories, but to draw out some of the policy implications and to understand their relevance to Australia.

Stage of development of new growth theories

Understanding what drives medium to long-term economic growth is clearly important. It is, however, a complex issue in which the economics profession is still feeling its way.

New growth theories — developments in formal analysis

Economists use models as workable simplifications of real world complexities. Models can be used to explain (how things relate to each other) or predict (what will happen if some things change). Formal models involve explicit relationships between factors of economic interest.

Understanding wealth creation has been a concern of economists since at least Adam Smith two centuries ago. Formal analysis of economic growth, however, is more recent and dates back to the late 1930s.

The early contributions to the formal analysis of growth of Harrod and Domar in the late 1930s and 1940s focused on the role of investment in explaining growth. In these earliest models, investment could only speed up the rate at which the economy reached a predetermined rate of growth; it could not increase the growth rate itself. This was a controversial finding that did not sit easily with economists, businesspeople or politicians.

Solow and Swan in the 1950s and 1960s used growth accounting models to attribute growth to various sources. They found that growth is increased by increasing the use of labour and capital, but that improvements in the productivity with which labour and capital are used is by far the main contributor to growth.

For example, Stern (1991) reported studies which found that over 50 per cent of the growth rate in industrialised countries is due to productivity growth. These productivity gains were attributed to technological progress, but the models had little to say about how that technological progress occurred. Thus, although economists and others may have had informed opinions about what was needed for growth, as far as the early growth models went, the major 'engine' of growth — technological progress — was treated as something that 'just happened'.

In addition, one of the key predictions of the models of the 1950s and 1960s — that income levels in different countries would tend to converge — has not been uniformly observed.

In a broad sense, the development of 'new' growth theories can be seen as an attempt to respond to these perceived deficiencies in formal models by delving into the factors that explain technological progress. That is, they aim to enrich both formal analysis and policy guidance by improving the understanding of what drives long-run growth. They explore what are thought to be the three main driving forces behind technological progress: the acquisition of human skills and know-how, research and development, and investment. This work has identified some factors which are open to government influence, and may thus provide a positive role for government in stimulating growth.

New growth theories are diverse in approach

The so-called 'new' theories are characterised by the inclusion of factors that attempt to explain productivity growth. These types of models began in the 1960s with the work of Kaldor and Mirrlees (1962) and Arrow (1962) who argued that capital investment raises productivity. The models of the 1960s, however, were only able to explain short-run changes in growth, or how an economy might speed up the rate at which it reaches a long-run equilibrium growth rate. They still could not explain how this long-run growth rate itself might change.

A further stream, initiated by Romer (1986), attempted to explain the long-run growth rate. This stream of new growth theory has focused on the roles of education and training, research and development, and investment, in stimulating technological progress and growth.

Because new growth theorists have explored different 'engines' of growth, new growth models have not yet provided a clear understanding of which engines of growth are the most important.

Sheshinski (1967, p.32), for example, argued that capital formation is the key to learning:

> Capital formation is ... the source of the learning process ... the creation of a skilled labour force ... depends on the availability of capital.

The models of Lucas (1988) and Romer (1990), in the tradition of Uzawa (1965), emphasise the importance of generating human capital through direct investment in new 'ideas', rather than the indirect generation of knowledge through investment in new production techniques.

> The essential feature of these models ... lies in identifying a sector specialising in the production of ideas. ... What these models possess in common is an emphasis upon the importance of human capital as being the crucial determinant in the growth process. Production of human capital is more important than the production of physical capital (Shaw 1992, p.616).

Auerbach (1992, p.162) also notes that:

> ... there is some suggestive evidence of an empirical association across countries between economic growth and investment in machinery and equipment. However, these empirical relationships fall short of demonstrating a causal link from investment to growth. They demonstrate correlation more than causality, and alternative explanations exist for the strength of the correlation, such as the unmeasured effects of human capital accumulation.

Empirical support is very limited

The empirical evidence to support human capital, R&D, or investment in plant and equipment or infrastructure, as engines of growth is limited, partly because the empirical side of new growth theory has been pursued somewhat separately from the theoretical side.

> ... the two streams of 'new growth theory' ... have been developing ... largely independent of each other. There has been little formal testing of the new theories, and at the same time the new evidence which is accumulating on patterns of growth has only been partially absorbed by those formulating the theoretical models (Dowrick 1992, p.3).

There are also difficult attribution and measurement problems in empirical work. In practice, growth may be due to other factors not included in the models, and what may be important for one country at one time may not be important for other countries or for that same country at another stage in its development.

Clearly, further work needs to be undertaken before general confidence is built up in the empirical validity of new growth theories.

There are some common threads

There are currently many approaches to analysing growth, and there is no general consensus on the importance which should be placed on different 'engines' of growth. Nevertheless, there are some common threads.

Knowledge is clearly crucial to technological progress. Knowledge can be specific — knowledge of new technologies and processes, of new ways of doing things — or can be quite general. General knowledge is thought to create information spillovers that speed up the rate at which knowledge of new technologies and processes are spread.

Education and training, R&D, and investment are considered to be the keys to this general knowledge. Perhaps the most widely accepted explanator so far is the importance of education and training as a generator of knowledge.

The spillovers from having an educated, skilled workforce are thought to stimulate growth in two ways. First, industries with highly educated workers are more likely to invest in new technology.

> ... the higher the stock of human capital ... the higher the rate of absorption of the leading technology and hence, the higher the ... growth rate (Barro 1992, p.207).

The second way in which a skilled workforce stimulates growth is by raising the productivity of workers. Human capital can be defined as the general level of skill. This general skill level, or knowledge, drives the level of productivity, and in turn, the growth rate. General skill levels can be raised through formal education as well as through on-the-job training. It is still an open question as to which sort of training system is best in terms of securing long-term growth opportunities.

Research activities lead to new knowledge. Because the patent system does not provide absolute property rights over knowledge, not all the returns to new knowledge can be captured by the originator. This is especially true where knowledge assumes a 'pure' public good nature. Thus knowledge generated by research also benefits other people and organisations, raising their productivity in the process.

The relationship between investment and knowledge is still far from completely understood. It is argued that investment in capital that embodies new technology stimulates growth through spillovers in knowledge from the new technology. That is, firms learn and raise their productivity not only from their own investments, but also from investments made by other firms.

Policy implications

While education, R&D, and investment in capital equipment and infrastructure are the keys, there is as yet no practical guidance as to the 'right' amounts of these factors required to improve long-run growth performance. This is largely because the theories are not yet sufficiently refined and empirically supported.

> Barro (1991) presents evidence from a very broad cross-section of countries which appears to support the hypothesis that human capital formation, measured by years of schooling, is an important contributor to growth. But there is as yet little substantial evidence to support the hypothesis of Lucas and others that human capital formation and learning by doing have substantial externality effects (Dowrick 1992, p.11).

There is as yet no firm conclusion about *where* our education and training dollars should be focused. Different countries have different educational strengths.

> The Germans are not the best educated at the top (America, with its superb graduate schools, is far better at this level), nor are they the best educated at the very bottom (the Japanese win there), but they are the world's very best over a broad range of midlevel, noncollege skills (Thurow 1992, p.55).

But the theories are not yet rich enough to explain how the emphasis on different forms of training in different countries might affect their relative economic performance.

R&D, ranging from basic (pure) research, undertaken simply for the sake of knowledge, to research which commercialises new ideas or inventions, is an important source of knowledge.

In the past, technological innovation has not always required an understanding of the scientific principles involved. For example, food was first canned well before it was understood how canning actually preserved food. Other technological advances have been based on incorrect scientific understanding — the mistaken belief that heat gave off a lighter-than-air substance did not stop hot air balloons from working — or on no new scientific knowledge or research, such as the typewriter or barbed wire.

It seems, nevertheless, that scientific understanding is becoming increasingly necessary for technological innovation:

> In the nineteenth century the US was known as a nation of copiers ... After America caught up at the end of the nineteenth century, it eventually learned to be inventive in the twentieth century. ... It did not sprint ahead of the rest of the world until it became a scientific leader at midcentury (Thurow 1992, pp.248-9).

It has also been argued, however, that the knowledge spillovers from R&D can just as easily come from imported technology as from domestic R&D (Pazderka 1991). Thus new growth theory does not necessarily provide an argument for domestic R&D as opposed to simply being open to the importation and adaptation of technologies from other countries.

Similarly, in the case of investment it is not yet clear which kinds of investment are likely to be most important. For example, de Long and Summers (1991) found that countries with high rates of investment in machinery and equipment had higher rates of growth than others, and therefore argue that such investment carries substantial external benefits and could significantly boost productivity.

Aschauer (1989), on the other hand, found that investment in 'core' public infrastructure including streets, highways, airports, mass transit, sewers and water systems, provided the best explanation of productivity growth. Recent empirical work by the OECD has cast doubt on Aschauer's results. It found little support for the hypothesis that infrastructure spending in Australia has led to much improvement in productivity (Ford and Poret 1991).

Finally, Auerbach (1992) argued that if the contribution of investment to growth comes from spillover effects, more needs to be learned about the nature of these spillovers and about which investments generate the greatest spillovers:

> ... does all investment contribute equally to growth, or are some types ... more productive than others? ... Are spillovers provided by increases in the capital stock, net investment, or additions of new capital, gross investment? Is equipment utilizing new technologies more important to the growth process than that which does not? These are not easy questions to answer (p.162).

The need for a better understanding of the nature of spillovers and their contribution to growth is also true for education and R&D. The empirical evidence is not yet sufficiently developed to indicate whether more or less needs to be spent on education, R&D or investment, whether it needs to be spent in different areas within each of these categories, whether the mix between public and private funding needs to be changed, and so on. For example, there may be support for skills training, but no specific guidance on how current spending patterns or levels should be changed, or whether the potential for growth could be enhanced by switching expenditure to another field entirely.

Selective intervention

Some have used the links in new growth theory between investment, R&D, education, and growth, to advocate promotion of particular infrastructure projects, R&D projects, commercialisation projects, and so on.

There has been some support provided in the growth literature for particular kinds of intervention. Kaldor and Mirlees (1962) argued for more scientific education, expenditure on research, and higher quality business management, to stimulate the technical dynamism of the economy.

Sheshinski (1967, p.32) argued for subsidies for capital investment as the source of a skilled labour force, although he could only support such a policy prescription at a very general level — a subsidy for all capital. He could not find a case for "direct protection of any individual industry".

Lucas (1988) provided some justification for an industry policy to subsidise the production of high-technology goods as a way of encouraging human capital through learning by doing, although the rationale for such a policy only held for a closed economy.

Thus, while various authors have provided support for various forms of intervention, it is still at a very general level, rather than providing support for specific projects or industries. In the absence of stronger empirical evidence of the contribution of education, R&D, and investment to long-run growth, it would appear that new growth theories provide little real support for selective intervention. Most of the messages to date are pitched at a much broader level of support for, for example, skills training or basic R&D, without being specific about how current spending patterns and levels should be changed.

This need for caution is also echoed in more general works on industry policy. For example, a number of Japanese writers, commenting on the Japanese experience, concluded that:

> ... it is not clear whether it is appropriate to attribute to industrial policies...the unprecedented high growth. ... [A] number of other factors — an extremely competitive market environment ... rapid and steady expansion of domestic as well as foreign markets, an abundant supply of imported foreign technology ... were also responsible ... (Itoh *et al* 1991, p.19).

Other policy contributions

While the literature on new growth theory pursues the analytical and empirical foundations of growth, there have been other important contributions which have focused directly on providing possible policy directions for government in pursuing growth and competitiveness. In particular, the importance of human capital and skills training is a theme echoed in the recent works on competitiveness by Reich (1991), Porter (1990), and Thurow (1992).

The common theme of these authors is to warn about relying solely on natural factor endowments for competitive advantage, and to postulate that future competitiveness for all nations will also depend on increasing the quality of human resources.

> Comparative advantage based on factors of production has intuitive appeal, and ... has informed much government policy toward competitiveness. .... Governments have, rightly or wrongly, implemented various policies designed to improve comparative advantage in factor costs. Examples are reduction of interest rates, efforts to hold down wage costs, devaluation that seeks to affect comparative prices, subsidies, special depreciation allowances, and export financing addressed at particular sectors (Porter 1990, pp.11-12).

There is now a growing recognition that competitiveness based on price must be backed up with a competitive edge based on a skilled labour force. This is even being reflected in the popular press, with the following appearing in a recent issue of *The Bulletin*:

> It's one thing to compete against a low-cost nation when you have a skill advantage; it's another, as Germany is finding out today, to compete when your qualitative advantage is fading but your costs remain high (Burger 1993, p.61).

It is high productivity that allows high wages to be paid without having to charge high prices on world markets. What seems to be important for growth based on high wages, is the need for policies that continually strengthen the education and skill levels of the workforce at all levels, from management down, as well as efficient labour markets that provide the appropriate wage signals about which skills are needed.

> Firms have to be able to use new computer-based ... technologies, employ statistical quality control, manage just-in-time inventories, and operate flexible manufacturing systems. ... To do this requires the office, the factory, the retail store, and the repair service to have average workers with levels of education and skill that they have never had to have in the past. ... In a global economy where goods can be sourced in low-wage Third World countries, the effective supply of unskilled workers has expanded enormously. As a consequence, wages must fall for the unskilled who live in rich countries (Thurow 1992, p.52).

The policy agenda

New growth theories provide some important leads, but there are still some gaps. What should the priorities for government intervention be? What specific actions should governments take? How do new growth theories relate to particular countries such as Australia?

The key feature of new growth theories is that knowledge gained from education, R&D, or investment generates spillovers that benefit not only the original producer of the knowledge, but other firms as well. The question for policy makers is how to ensure that adequate knowledge is still generated given that these externalities and spillovers will reduce the private market's incentive to invest in knowledge-generating activity.

The fact that the jury is still out on new growth theories does not mean that there is no role for governments in promoting growth.

Governments clearly have a role to play in education, R&D and infrastructure funding. It is uncontroversial to argue that governments should support certain of these activities where there are substantial spillover benefits to society in excess of the benefits that accrue to the individual.

Spillovers are not confined to the potential for enhancing growth. In the case of education, for example, society as a whole benefits from having a higher standard of literacy and numeracy than would result if education were left entirely to private individuals.

In this sense, new growth theories offer few new insights. Governments are already heavily involved in a range of activities that have the potential to generate spillovers — not because they lead to growth, but because they would be underprovided without such government support. For example, Australia spends roughly 1.3 per cent of GDP on R&D, and just over 5 per cent of GDP on education, each year. Although this is less than some other countries spend, it is still a considerable amount.

Nevertheless, it is by no means clear that government involvement in these activities is at a level or occurs in such a way as to maximise Australia's growth potential. There is a series of questions to be raised about the efficacy of such involvement, the precise links between education, R&D and investment and growth, the appropriate role of government in their provision, and so on.

What can governments do in specific cases? There is clearly scope for governments to get involved where spillovers are large and there would otherwise be underprovision or underexpenditure. However, there is also need for considerable caution. Intervention raises a number of thorny issues:

- Government support will not be warranted in all cases where a spillover can be identified, given the costs of intervention itself. Priorities will be needed, perhaps targetting only 'big' spillovers, for example, or those that have a more direct impact on economic growth.

  There is thus a need to assess the relative importance of spillovers — even if only qualitatively — in order to guide the extent of government involvement. But spillovers are, by their very nature, difficult to measure. This would suggest that broad classes of spillovers — certain kinds of education or R&D or investment — should be targetted, rather than specific projects.

  There is also a need for better understanding of the linkages between the spillovers from education, R&D, and investment in stimulating growth. For example, education clearly affects our ability as a nation to undertake world-class R&D. To maximise Australia's growth prospects, is government involvement necessary in education **and** R&D **and** investment, or is it best focussed on education, for example, where the spillovers are better understood and the linkages with the other activities ensuring that R&D and investment also receive an indirect benefit?
- Even in the presence of spillovers, some activities provide sufficient private benefits to proceed without government support. This raises the question of whether the spillovers are substantial in relation to

returns on other investments. Government intervention should be in the areas which bring the greatest social returns.

- It is also important to have some idea of what the costs of supporting such activities would be if it turns out that the spillovers do not actually lead to growth. In other words, governments can get it wrong just as the market can.

Conclusion

While new growth theory lends support for education and training, R&D, and investment, as sources of learning, it does not provide any particular guidance as to how best to pursue these policies. There are no magic levers that can be pulled to achieve sustainable economic growth.

For one thing, new growth theories do not give any guidance as to the relative importance of education versus R&D versus investment, nor of different types of education, R&D, or investment. The policy implications that can be drawn are thus very general.

Furthermore, education, R&D and investment are not the only determinants of growth. Many other factors are also important. For example, some societies are better at creating and making use of knowledge, and hence are more technologically dynamic, than others. The role of factors such as a society's cultural values and diversity, its tolerance of new things, and its institutional openness to change, are not part of standard new growth theories.

> Differences in national economic structures, values, cultures, institutions, and histories contribute profoundly to economic success (Porter 1990, p.19).

Such influences as cultural traits, social values, and institutional structures are even more difficult to understand and model than the ones already discussed in this appendix. Perhaps the main lesson that can be drawn is the need for social and institutional flexibility in order to create a climate in which new ideas and knowledge can emerge.

> What made the West successful was ... an ever-changing panorama of technically creative societies ... and the continuous competition between political units for political and economic hegemony. Upon those foundations rested the institutions and incentive structures needed for sustained technological progress. But the structure is and always will be shaky. There are no sufficient conditions for creativity in any society (Mokyr 1990, p.302).

Performance of Australian industry

APPENDIX C
AUSTRALIA'S COMPARATIVE ECONOMIC PERFORMANCE

Australia's economic performance is often judged against the past. But how Australia is currently performing compared with other economies is also important. The rate of growth and development in other economies affects the level and nature of trade opportunities for Australia. However, improved competitiveness of other economies can place pressure on us in markets at home and overseas. These factors in turn help to determine how Australia's living standards develop compared with the rest of the world. This appendix shows that, while Australia's recent economic performance has been respectable by OECD standards, it has been outstripped by the performance of East Asian economies. While East Asia's growth provides us with opportunities, their increased competitiveness is also a challenge. Although Australia's trade orientation has increased, it has been outperformed by other economies especially in East Asia. Australia's performance in terms of per capita income is holding up, but may to be overtaken by a number of East Asian economies within the next decade.

This appendix compares Australia's recent economic performance with its top sixteen trading partners as defined by their share of total exports from Australia (Figure C1). All except Hong Kong and Thailand are also in the top sixteen in terms of their share of Australian imports.

The comparisons are based on readily available data. In a number of cases, data are somewhat dated or not strictly comparable between countries. Bringing about consistency in inter-country comparison is demanding and beyond the scope of this current exercise. Nevertheless, the Commission has decided to present these data as a first attempt to bring together information that would help assess Australia's comparative economic performance.

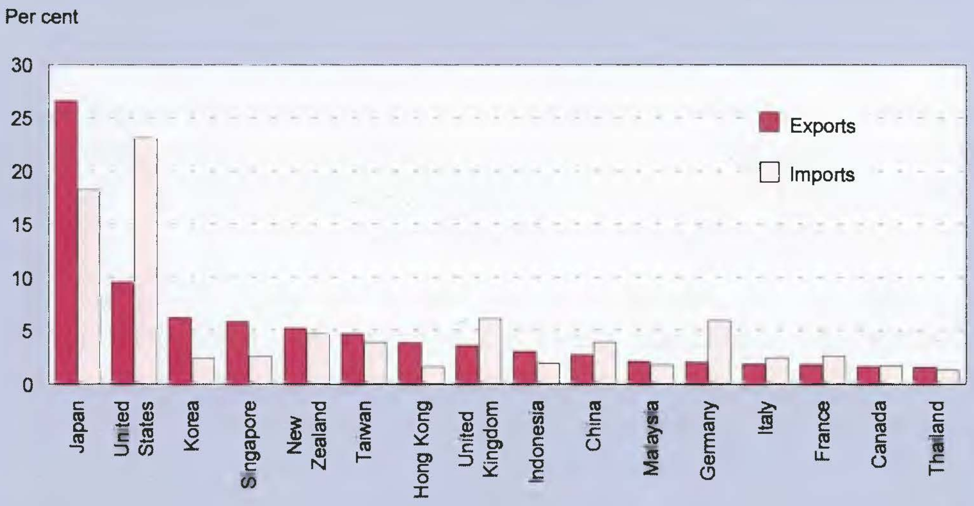
The appendix is in four sections: summary economic indicators, competitiveness, Australia's trade links with East Asia and living standards.

Summary economic indicators

Various performance indicators can be called upon. But, in keeping with the issues raised elsewhere in this report, the focus is on indicators related to output, employment, trade, research and development, and education.

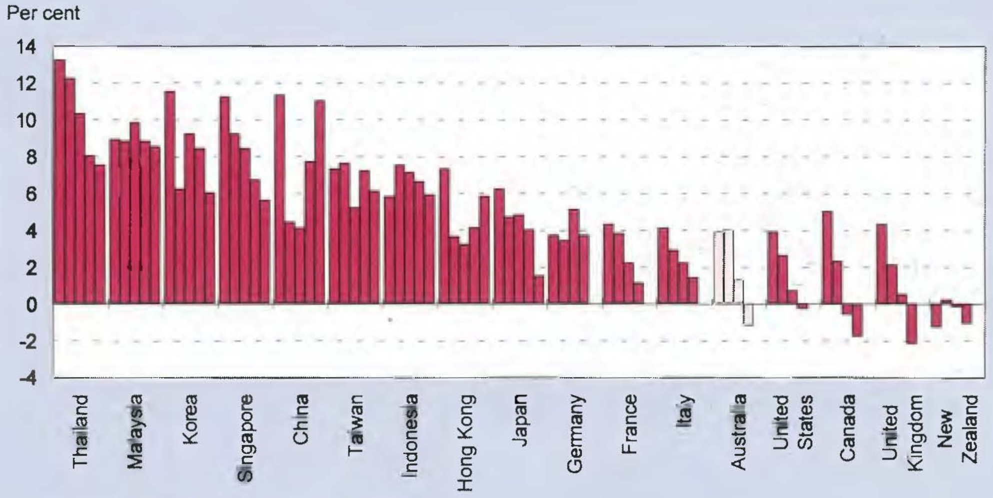
In recent times (since 1992) Australia's rate of growth has been above the OECD average. However, taking a broader sweep of time and countries, Australia's relative growth rate has been poorer. The annual rate of growth in real GDP for each economy from 1988 to 1992 is shown in Figure C2, presented in descending order of compound annual rate of growth over the period. Australia had the fifth lowest rate of growth of all the economies shown. All of the East Asian economies have had higher rates of growth than the other economies shown. Australia, the United States, Canada, the United Kingdom and New Zealand have all experienced recession in the last year or two with negative rates of economic growth. In contrast, the

Figure C1
Australia's major merchandise trading partners, 1991–92



Source: ABS Cat no. 5410.0

Figure C2
International comparison of annual growth in real GDP[a], 1988 to 1992



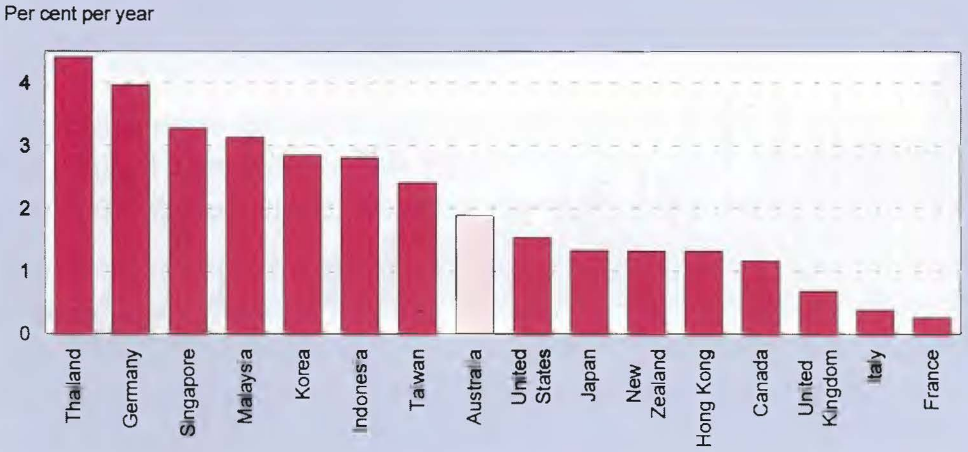
a Some data for 1992 are not available.
Source: Asia-Pacific Economics Group (1993), OECD (1992b)

East Asian economies have maintained comparatively high positive rates of growth. Australia's more recent and improved growth performance is still behind that shown for East Asian countries.

Australia has performed better on employment growth. The compound annual rate of growth in employment for the period 1981 to 1991 is shown in Figure C3, with the economies presented in descending order. Australia has a middle ranking on this indicator, with relatively strong growth over the 1983 to 1990 period (Appendix H). Australia had a higher rate of growth in employment than most of the OECD economies shown, but a lower rate than many of the East Asian economies.

Despite the relatively strong growth in employment, Australia's unemployment rate has steadily increased (Figure C4). The economies are presented in ascending order of their average rate of unemployment for the years in which data were available. By 1992, Australia had the second highest rate of unemployment among these economies. In contrast, the East Asian economies have had relatively low levels of unemployment, most of them less than half Australia's rate.

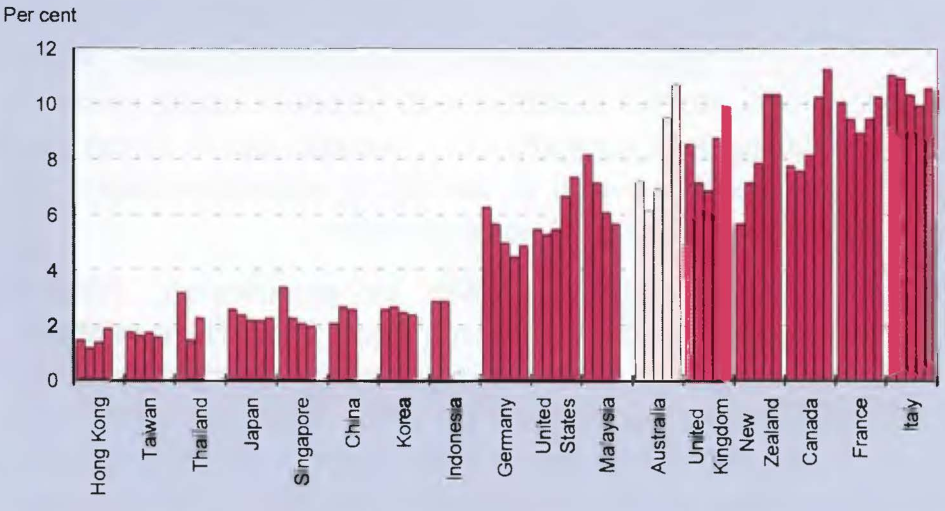
Figure C3
International comparison of rate of growth in employment, 1981 to 1991[a]



a Compound annual rates of growth.

Source: World Economic Forum (1993)

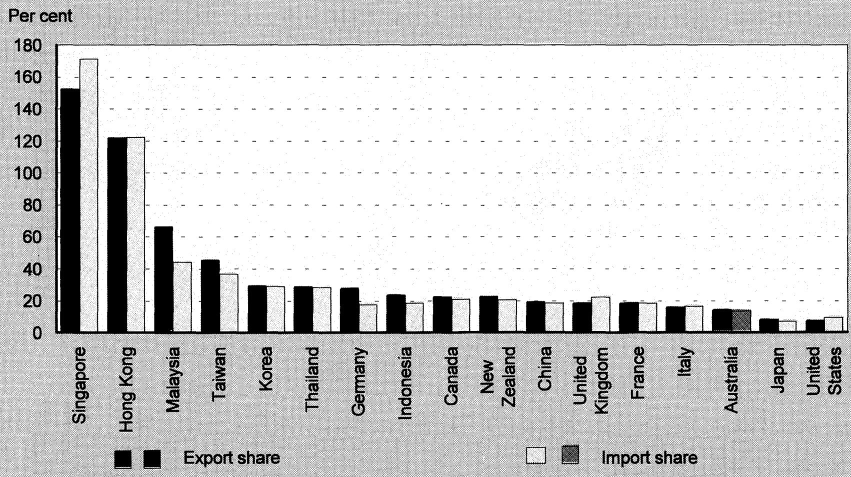
Figure C4
International comparison of annual rate of unemployment[a], 1988 to 1992



a Some data are not available for various years.

Sources: Asian Development Bank (1992), OECD (1993b)

Figure C5
International comparison of exports and imports of goods and services as a percentage of GDP from 1988 to 1991[a]



a Annual average over 1988 to 1991.
Sources: Asian Development Bank (1992), OECD (1993b)

The importance of trade varies markedly between countries. Exports and imports of goods and services expressed as a percentage of GDP (shown in Figure C5 in descending order of exports) provide an idea of the trade orientation of an economy. But these indicators are not necessarily indicators of performance, in the sense that high levels are necessarily superior to low levels. The appropriate level will depend on the diversity of the economy's industrial structure, its size, location and resource endowment.

However, it is striking that the East Asian economies (excluding Japan) appear to be much more trade-oriented than the other economies. The high degree of trade orientation in East Asia is sometimes associated with their high rates of GDP growth. This has led to suggestions that one way for Australia to increase its rate of economic growth is to become more trade-oriented, in particular by increasing trade with the rapidly growing economies of East Asia.

Australia has become more export-oriented in the last decade with the volume of exports as a proportion of GDP rising from around 13 per cent to around 20 per cent (Figure C13). However, Australia's trade orientation has not increased as much as other developed countries (Appendix E).

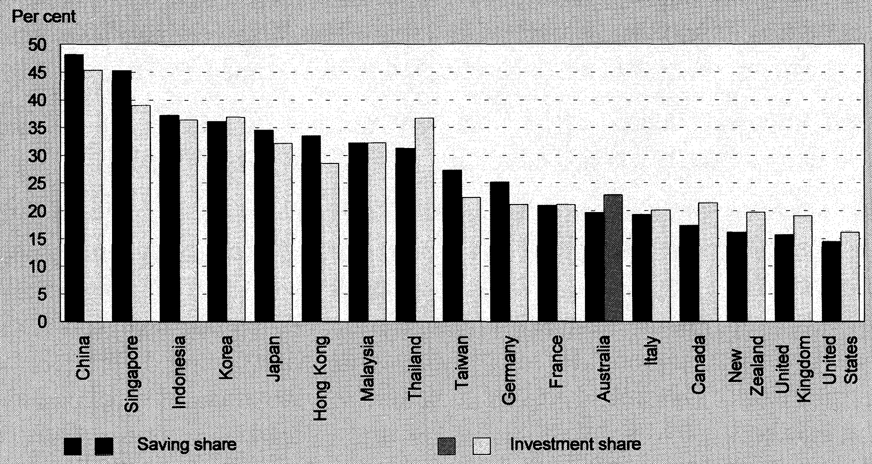
The East Asian economies have lifted their ranking as world exporters in striking fashion (Table C1). From ranking in the 20s and 30s in terms of world importance in 1980, they tended to be in the teens in 1990. Australia's ranking slipped from 18 to 22 in merchandise trade, but increased from 23 to 20 in services. Australia's trade links with East Asia are examined in a section to follow.

Table C1
Ranking of exporters in world trade, 1980 and 1990

	Merchandise		*Services*	
	1980	*1990*	*1980*	*1990*
Germany	2	1	4	4
United States	1	2	2	1
Japan	3	3	6	5
France	4	4	1	2
United Kingdom	5	5	3	3
Italy	7	6	5	6
Canada	10	8	14	12
Hong Kong	24	11	21	14
Taiwan	23	12	30	22
Korea	32	13	20	19
China	31	15	28	27
Singapore	26	18	15	13
Australia	**18**	**22**	**23**	**20**
Malaysia	40	26	41	31
Indonesia	19	28	na	na
Thailand	48	31	33	21
New Zealand	na	na	50	40

na not available.
Source: GATT (1992)

Figure C6
International comparison of saving and investment as a percentage of GDP, 1990



Sources: Asian Development Bank (1992), OECD (1993 b)

The East Asian economies are also distinguished by their saving and investment as a share of GDP (Figure C6). In all cases, the rates of domestic savings and investment in 1990 in the East Asian economies are higher than the levels in OECD countries.

The balance between domestic saving and investment also reflects whether economies run surpluses or deficits on current accounts and their status as net providers of capital to other countries or as net drawers of foreign investment and/or debt.

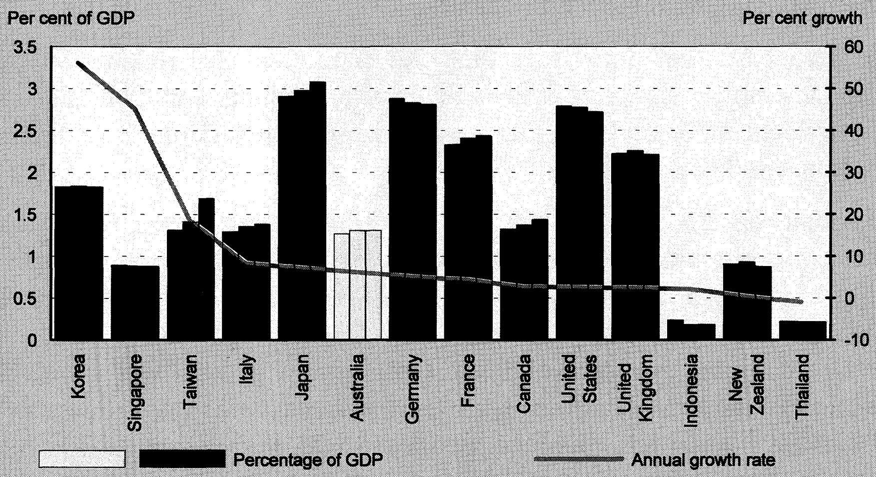
The recent report to the Treasurer on Australia's saving argued for policies that encourage national saving (FitzGerald 1993). It noted that Australia's saving in 1992 had fallen to 16 per cent of GDP and that the gap between saving and investment requirements were financed by foreign debt. In addition, it argued that Australia could not sustain growth over the 1990s and into the next century by going progressively further into foreign debt and that the interest rate premium associated with higher foreign debt only increases Australia's costs in servicing that debt. In conclusion, the report called for stronger national saving by all sectors to facilitate and sustain growth in the economy.

The different rates of investment between countries is one factor that may affect the growth performance of countries — although the nature of investment is important, as well as its level. The links between investment and growth are discussed elsewhere in this report (Appendix B).

Other factors considered to be important engines of growth are research and development (R&D) and education and training (Appendix B).

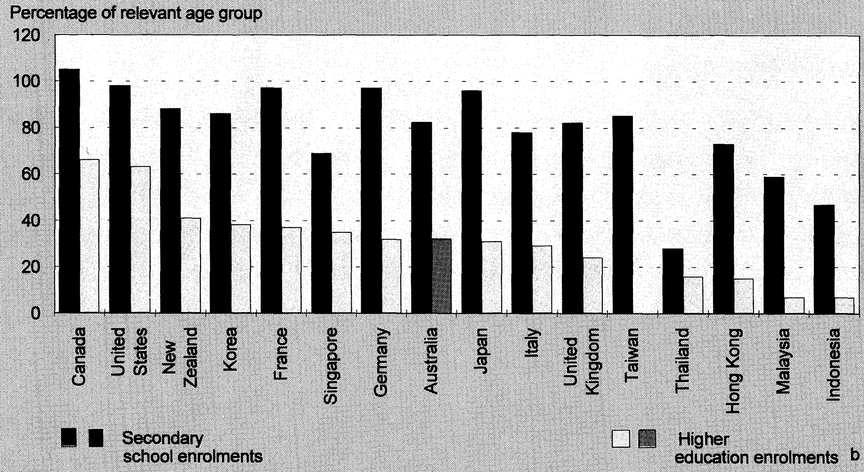
R&D assumes greater importance for different countries. Figure C7 compares the level and growth of R&D expenditure. Some developed economies have high levels but low rates of growth of expenditure on R&D (UK, US, Japan, France and Germany). Others (in East Asia) have lower levels but higher rates of growth of expenditure on R&D (Korea, Singapore and Taiwan). Australia is one of the remaining economies which had both a low level of, and a low rate of growth in, expenditure on R&D over the period (although expenditure has increased in recent years).

Figure C7
International comparison of annual expenditure on R&D as a percentage of GDP, 1989 to 1991, and its annual growth rate, 1983 to 1991



Source: The World Economic Forum (1991 to 1993)

Figure C8
International comparison of enrolment rates in secondary school and higher education[a], 1989



a Enrolment rates can exceed 100 per cent because some pupils are below or above the standard secondary school age (12-17 years).
b Data are not available for Taiwan.
Source: The World Economic Forum (1993)

It is likely that economies in this last group largely rely on imported technology. Similar data in the latest Science and Technology Budget Statement show that generally the difference between the economies with high and low levels of expenditure reflects the differences in the level of R&D expenditure by the private sector (Schacht 1993).

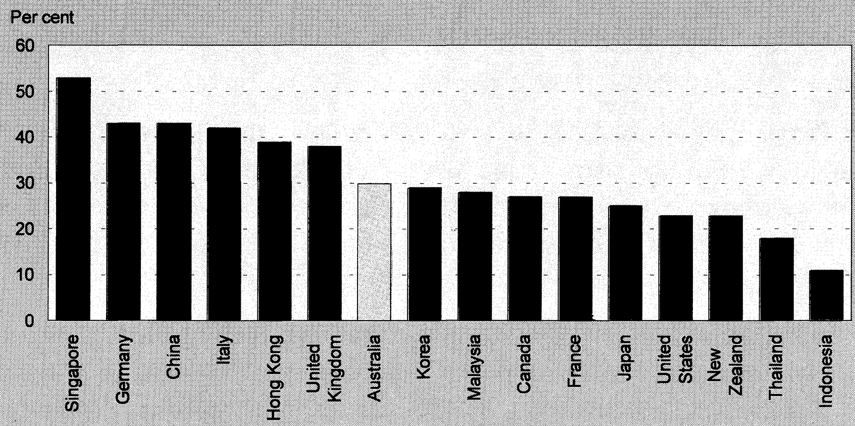
The importance of education, as measured by participation rates, also varies between economies. Figure C8 compares enrolments in secondary and higher (post-secondary) education in the various economies. Generally, the OECD economies have greater participation rates in higher education compared with the East Asian economies. However, Korea and Singapore have higher participation rates than Australia.

Another influence on productivity and growth is the level of technical and scientific skills of the workforce. Comparable data in this area are hard to come by. Figure C9 shows science graduates as a percentage of total graduates. Singapore, China and Hong Kong have a higher percentage of science graduates than Australia, with Korea just behind Australia. The limits of this indicator are well demonstrated in Japan's low ranking, despite the very high technical skills of its workforce.

Competitiveness

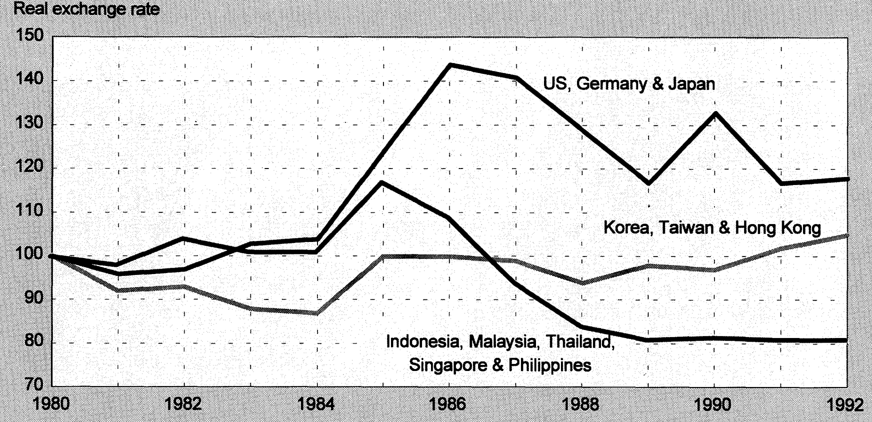
Assessments of competitiveness are often complicated and involve a number of measures (eg profitability, comparisons of cost structures, productivity indicators and market share analysis). Profitability and cost structures comparisons between countries are particularly difficult in the absence of consistent and reliable data. Some available indicators are presented here.

Figure C9
Science graduates as a percentage of total graduates, 1988 to 1990



Source: United Nations Development Programme (1993)

Figure C10
Australia's real exchange rate[a], 1980 to 1992



a An increase means an improvement in competitiveness.
Source: Asia-Pacific Economics Group (1993)

One indicator of competitiveness often presented at the macro level is the real exchange rate.[1] Figure C10 shows Australia's real exchange rate relative to those of its trading partners (by grouping).

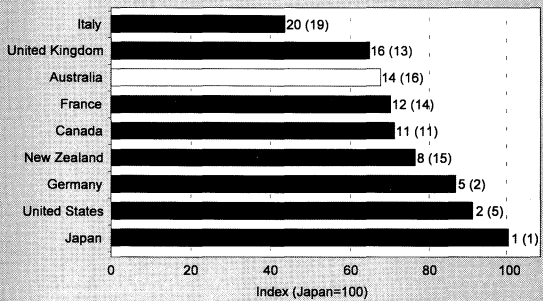
Australia's competitiveness against its South-East Asian trading partners rose until 1985 as the Australian dollar depreciated, and subsequently declined as the dollar strengthened. Improvement in competitiveness in the mid-1980s was larger against Japan and other industrial economies due to the lower Australian dollar value in 1985 and 1986. There was also a small improvement in competitiveness against some of the North-East Asian economies (Hong Kong, Taiwan and Korea) around 1985, but this was not sustained. However, there has been some improvement in 1991 and 1992.

1 In index form, the real exchange rate can be defined as the nominal exchange rate in units of Australian currency per unit of foreign currency, times the ratio of the foreign price index to the Australian price index. If Australia lowers its costs of production through improved productivity relative to other countries, its price index should fall relative to the foreign price index and the real exchange rate should rise.

One way — and arguably the best way — for Australia to increase its trade orientation, improve its rate of economic growth and reduce its unemployment rate, would be to enhance its competitive position by improving productivity. This would require that productivity gains are not

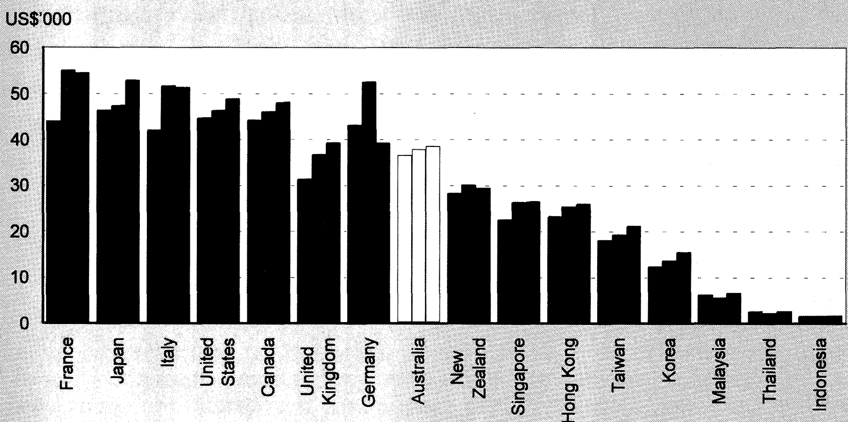
Box C1
World Economic Forum study of world competitiveness

For the eighth consecutive year, Japan came top in the 1993 survey of world competitiveness published by the World Economic Forum and IMD, a Swiss business school. The survey combines published data and executive opinions. The United States rose from fifth to second place "thanks to a rise in business confidence and its openness to international markets. New Zealand was the star performer. Its strengthening economy, and improving management and infrastructure, helped it soar from 15th to 8th". (*The Economist*, 26 June 1993, p.111). Australia's position improved marginally, rising from sixteenth to fourteenth.



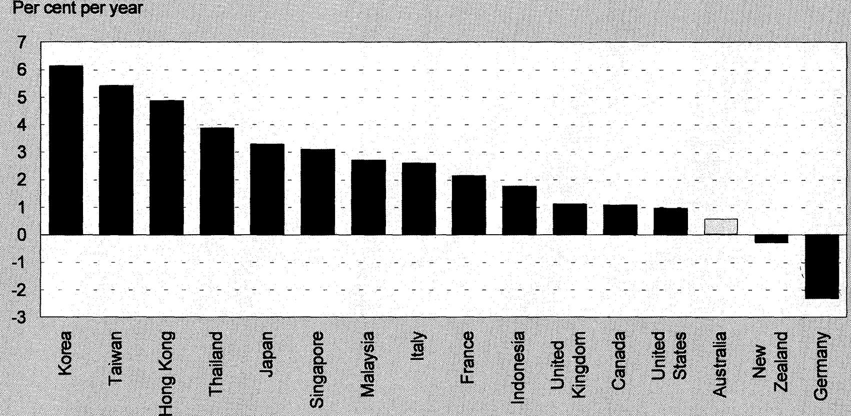
Note: Numbers beside the bars are the 1993 ranking and those in brackets are the 1992 ranking.

Figure C11
International comparison of annual real GDP per person employed, 1989 to 1991



Source: The World Economic Forum (1991 to 1993)

Figure C12
International comparison of growth in real GDP per person employed[a], 1983 to 1991



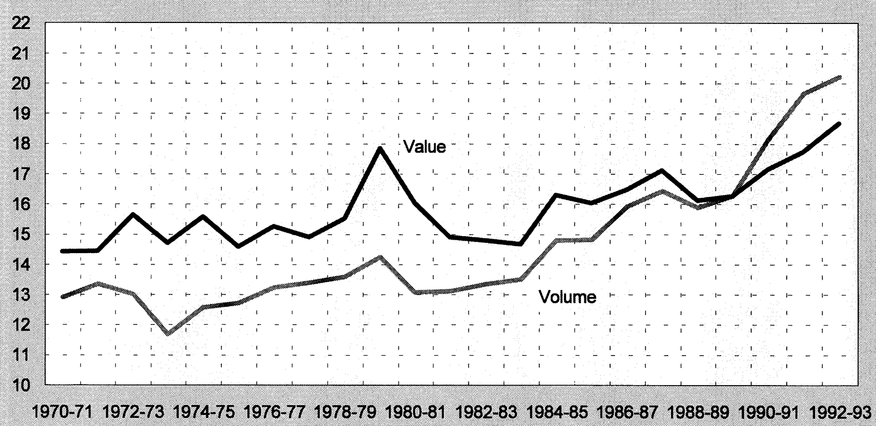
a Average annual rate of growth.
Source: The World Economic Forum (1993)

totally absorbed by the factors of production (labour and capital) in the form of higher factor incomes (wages and rates of return). That is, it would require that some of the gains be used to lower prices of outputs.

Figure C11 shows labour productivity as measured by GDP per person employed from 1989 to 1991, while Figure C12 shows its annual rate of growth during the period 1983 to 1991. Australia stands out as a particularly poor performer with the third lowest rate of growth in labour productivity. It should be noted, however, that this was a period of strong employment growth in Australia.

The disadvantage in looking only at labour productivity is that it can be influenced by an increase in output due to the introduction of labour-saving technology, which could lead to a decline in the productivity of capital, so that overall productivity is unchanged. For this reason it is desirable to examine overall productivity using total factor productivity (TFP). TFP is a quantity index of output divided by a quantity index of the factors of production used to generate the output. Comparisons of the rate of growth in TFP between economies are presented in Appendix A. These relate to

Figure C13
Australia's exports of goods and services as a percentage of GDP, 1970–71 to 1992–93



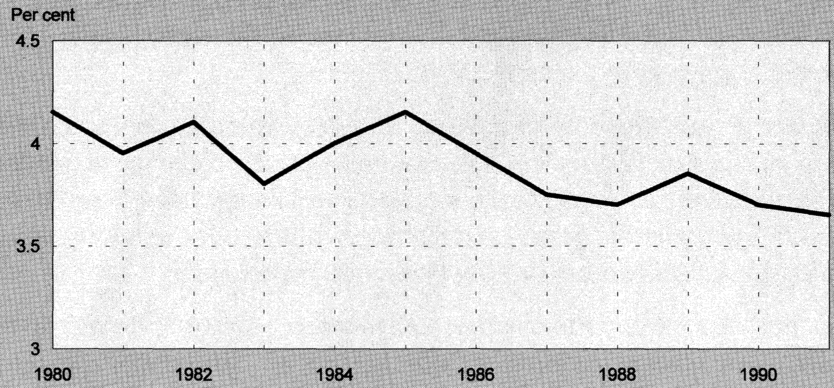
Source: ABS Cat no. 5204.0, 5206.0

Table C2
Increase in the value of selected countries' exports to various destinations, 1985 to 1991

	Increase in exports ($US billion)				*East Asian*
	Total	*To North America*	*To European Community*	*To East Asia*	*share of total increase* (%)
China	44.1	4.2	4.5	32.9	74.6
Indonesia	10.6	-0.4	2.6	7.2	67.9
Australia	**19.8**	**2.3**	**1.9**	**13.3**	**67.2**
Taiwan	35.9	-1.5	9.9	20.7	57.7
Malaysia	18.0	4.0	2.9	9.6	53.3
Singapore	36.5	7.1	5.9	18.4	50.4
Hong Kong	66.9	14.1	13.5	30.8	46.0
Korea	39.1	8.0	6.6	17.8	45.5
New Zealand	3.9	1.4	0.3	1.7	43.1
Japan	138.2	28.2	38.5	58.9	42.6
Thailand	20.9	4.9	4.4	8.2	39.2

Source: Asia-Pacific Economics Group (1993)

Figure C14
Australia's share of the value of imports by East Asian countries, 1980 to 1991



Source: Asia-Pacific Economics Group (1993)

different time periods and rely on different data methods. Nevertheless, they do put Australia well toward the lower end of TFP growth.

While it would be wrong to be precise about the labour productivity and TFP comparisons, the overall impression is that Australia is not shaping up well against other OECD economies, and looks particularly weak against the East Asian economies.

Australia's exports to East Asia

Australia's links with East Asia are of particular interest, given the importance of trade with that region for Australia's future. Moreover, the above indicators suggest there is a strong competitive challenge from the region, in addition to the opportunities that its strong growth provides.

The growth in Australia's exports has been impressive. Figure C13 shows Australia's increased export orientation. In volume terms, it has been quite marked — particularly since the mid-1980s. However, because of declining terms of trade, the increase in the value of exports has been less impressive.

East Asia has been a major focus of the increase in Australia's exports. About two-thirds of the increase since 1985 has gone to East Asia (Table C2).

However, despite the strong growth, Australia's overall market share in East Asia has declined from around 4.3 per cent in the early to mid 1980s to around 3.8 per cent in the early 1990s (Figure C14).

The decline in Australia's market share measured in value terms could be due to a number of factors.[2] First, declining prices could have reduced Australia's market share. Australia's exports are largely non-manufactured commodities and relative declines in the prices of these commodities would have affected Australia more heavily than other economies.

Second, East Asia's imports may have changed in ways that do not favour Australia. As these economies develop, they are importing more

Table C3
Imports by East Asian countries by type of import, 1980 and 1991 (per cent[a])

	Food and live animals		*Raw materials, minerals and fuels*		*Basic manufactures*		*Machines, transport & equipment*	
	1980	*1991*	*1980*	*1991*	*1980*	*1991*	*1980*	*1991*
China	14.6	4.4	18.8	11.2	20.8	16.4	25.6	30.7
Hong Kong	10.3	5.1	12.1	4.5	30.1	23.8	22.4	29.1
Indonesia	11.9	4.1	20.7	16.7	18.9	16.1	33.5	45.4
Korea	8.1	4.7	46.2	26.5	11.0	16.3	22.4	33.3
Malaysia	10.4	5.8	19.6	8.3	16.4	15.8	38.8	50.2
Singapore	5.7	4.1	35.7	15.9	14.1	13.1	29.8	46.8
Taiwan	6.1	4.2	39.2	17.9	12.2	14.5	27.9	32.9
Thailand	3.1	4.3	36.8	15.2	14.9	24.8	22.8	40.8

a Percentage of each country's total imports.
Source: Asian Development Bank (1992)

2 Due to insufficient data, it was not possible to measure market share in volume terms.

Table C4
Direction of Australian merchandise exports, 1984–85 to 1990–91 (per cent)

	1984–85	*1987–88*	*1990–91*
North-East Asia	40.0	41.8	43.1
ASEAN	7.5	7.3	12.0
New Zealand	5.2	5.3	4.9
USA	11.6	11.4	11.1
EC 12	13.1	15.7	12.1
Other	22.6	18.5	16.8
Total	**100.0**	**100.0**	**100.0**

Source: DFAT (1992b)

Table C5
Manufactured content in Australia's exports to East Asia and the world, 1989 and 1991 (per cent)

	1989	*1991*
North-East Asia		
Non-manufactures	79.7	81.1
Simply transformed manufactures (STMs)	15.1	12.0
Elaborately transformed manufactures (ETMs)	5.2	6.9
ASEAN		
Non-manufactures	65.2	64.0
STMs	14.7	12.6
ETMs	20.1	23.4
World		
Non-manufactures	74.7	73.1
STMs	11.4	10.0
ETMs	13.9	16.9

Source: DFAT (1992a)

manufactures relative to primary commodities (Asia-Pacific Economics Group 1993). This is reflected in Table C3, which shows the general and marked shift in emphasis from food items and raw materials to manufactures, especially machines, transport and equipment.

Two reports by the Department of Foreign Affairs and Trade (DFAT 1992a, 1992b) provide assessments of Australia's trade with South-East and North-East Asia. Table C4 shows that North-East Asia is the most important destination for Australian exports and that ASEAN is the fastest growing destination.

The structure of Australia's exports to the two regions is quite different. Australia's exports to North-East Asia are very intensive in unprocessed bulk commodities and have become increasingly so (Table C5).

Australia has maintained market share in Japan, gained ground in Korea and Taiwan and lost ground in China and Hong Kong (Table C6) (DFAT 1992b, p 50). One explanation for the loss of market share in China and Hong Kong (via which many Australian exports are destined for China) is the growth in China's imports of machinery and equipment. Australia has not traditionally been a competitive supplier of these items.

Exports to South-East Asia, by comparison, are still intensive in unprocessed bulk commodities, but manufactures are more represented. Over the 1987 to 1991 period, Australia has maintained its market share in Singapore and the Philippines, gained ground in Indonesia, Vietnam and Cambodia, and lost ground in Malaysia and Thailand (Table C7).

A third explanation for Australia's loss of market share is that the economies could be expanding so rapidly that supply constraints in Australia prevent us from keeping up with demand. DFAT (1992a) offered

Table C6
Australia's share of imports by individual North-East Asian countries, 1980 to 1990 (per cent)

	1980	*1984*	*1987*	*1990*
Japan	5.0	5.3	5.3	5.3
Korea	3.1	3.6	3.1	3.7
Taiwan	2.6	3.5	2.9	3.0
Hong Kong	1.5	1.5	1.3	0.9
China	5.4	3.5	3.1	2.5
North East Asia	4.3	4.3	3.8	3.8

Source: DFAT (1992b)

Table C7
Australia's share of imports by individual South-East Asian countries, 1987 to 1991

	Australian market share 1991	*Change in Australian market share (1987–91)*
	(%)	(percentage points)
Cambodia	6.8	+6.8
Indonesia	5.3	+1.7
Malaysia	3.2	-0.9
Philippines	3.2	0.0
Vietnam	2.2	+1.5
Singapore	1.9	0.0
Thailand	1.5	-0.3
Brunei	0.8	-2.7
Laos	0.3	+0.2

Source: DFAT (1992a)

this as a possible explanation in relation to exports to South-East Asia.

A fourth explanation would be a decline in Australia's competitiveness. If Australian firms were unable to match quality, price and reliability in individual markets, their share would decline. The information to judge this possibility in a detailed way is not available. Nevertheless, the previous section suggested that Australia's general competitiveness in relation to East Asian countries has been varied.

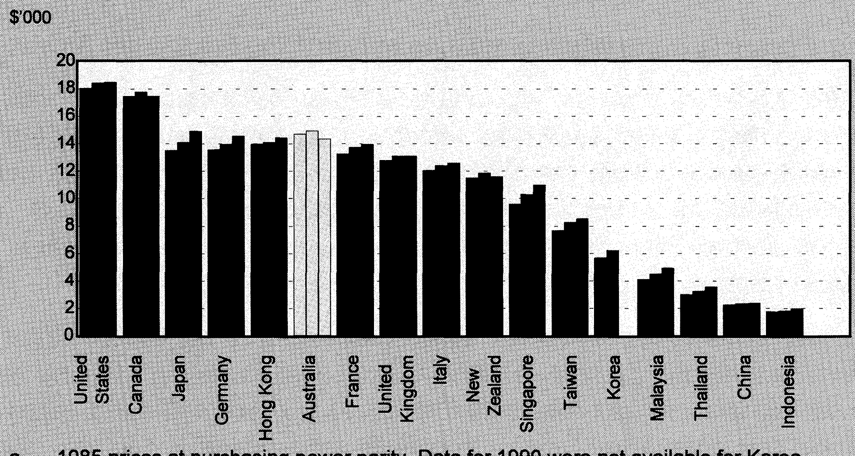
Fifth, the decline in Australia's share could simply be due to distance between economies. That is, East Asian economies are trading with themselves, while other economies outside the region are disadvantaged by distance (transport costs and/or frequency of service). On this view, Australia could be expected to do better in exports to East Asia than possibly the US and EC, but not as well as the East Asian economies. However, in the reverse direction, transport factors do not appear to have inhibited East Asian economies from exporting to other economies outside the region (Table C2).

Without being definitive, it would appear that Australia's decline in market share is most likely due to the gap between what East Asia increasingly wants to buy and what Australia can most readily offer. But, whatever the reasons for Australia's declining market share in East Asia – be they on the demand or supply side – it seems that, despite the impressive changes that have already occurred, Australia is not yet taking full advantage of the potential that East Asia offers.[3]

Living standards

Australia's concern to find ways to improve its economic performance is driven by the desire to raise the standard of living of its citizens. While there is no single measure that covers all of the attributes associated with the term 'standard of living', several indicators are widely used.

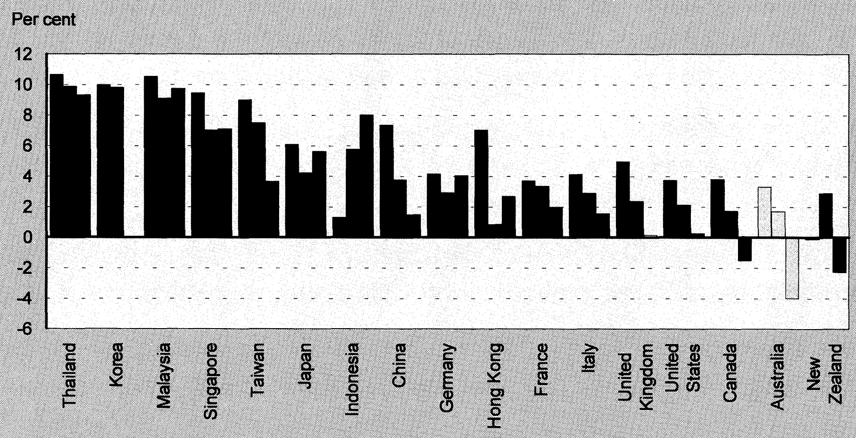
Figure C15
International comparison of annual real GDP per capita[a], 1988 to 1990



a 1985 prices at purchasing power parity. Data for 1990 were not available for Korea.
Source: Summers and Heston (1993)

3 The Department of Foreign Affairs and Trade has pointed to evidence that direct foreign investment is trade creating. While Hong Kong and Singapore received about 11 per cent of Australia's total direct investment overseas, the remaining East Asian economies received less than 2 per cent.

Figure C16
International comparison of annual rate of growth in real GDP per capita[a], 1988 to 1990



a 1985 prices at purchasing power parity. Data for 1990 were not available for Korea.
Source: Summers and Heston (1993)

Although GDP per capita is a popular indicator, a better one is real GDP per capita, measured using purchasing power parities (Figure C15).[4] The economies are presented in descending order of per capita income in 1990. Australia is ranked sixth, although many economies have similar levels.

Comparisons within OECD economies, based on detailed investigation of goods and services, produce slightly different ranking (United Nations 1986). However, the Penn World Tables were used to allow inclusion of the East Asian economies (Summers and Heston 1993).

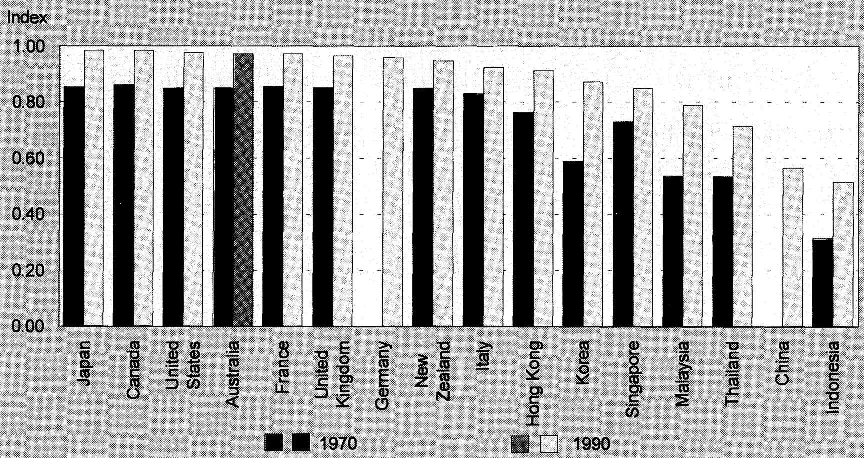
4 Purchasing power parities (PPP) are the rates of currency conversion that equalise the purchasing power of different currencies. This means that a given sum of money, when converted into different currencies at PPP rates, will buy the same basket of goods and services in all countries. Thus, when expenditures in price levels between countries are converted into a common currency by means of PPP, they are, in effect, expressed at the same set of international prices so that comparisons between countries reflect only differences in the volume of goods and services purchased. (OECD 1992d). Distortions to domestic prices that might arise, for example, through import protection, are eliminated. Quality differences are also taken into account.

Australia's ranking at around sixth may not hold on current trends. At present, Hong Kong is the only East Asian economy with higher per capita income than Australia. If recent growth rates (Figure C16) continue for another decade or so, several other East Asian economies (starting with Singapore and Korea) will have higher per capita incomes than Australia. Whilst the recent recession is an obvious factor, the figure shows that Australia's position pre-recession was also relatively weak.

Even when measured at purchasing power parity, GDP per capita is sometimes criticised as a measure of living standards. This is because other 'quality of life' attributes are overlooked.

The United Nations Development Programme (1993) has endeavoured to overcome some of these limitations by developing an indicator it calls the Human Development Index (HDI). The HDI is a composite of three factors: longevity, knowledge and income, each being given an equal

Figure C17
International comparison of the Human Development Index[a], 1970 and 1990



a Data for 1970 were not available for China and Germany.
Source: United Nations Development Programme (1993)

weight.[5] The HDI takes on values between zero and one. A value of one indicates that all factors corresponded to the highest levels observed in the sample. A value of zero indicates that all factors corresponded to the lowest levels observed in the sample.

The HDI for 1970 and 1990 is shown in Figure C17. Among the East Asian economies, Japan, Hong Kong, Korea and Singapore (in that order) have levels closest to those of Australia. The levels of other OECD countries are almost the same as Australia's.

Dowrick and Quiggin (1993) make further allowances in OECD country comparisons for employment, hours of work, and consumption, investment and leisure patterns. Their work does not alter Australia's middle-order ranking in living standards within OECD countries. However, they give special attention to Japan and conclude that Australia's high consumption of cheap food, land and leisure reverses the GDP per capita comparison that favours Japan ahead of Australia.

5 Longevity is measured as life expectancy in years at birth. Knowledge is measured as two-thirds times the literacy rate plus one-third times the average years of schooling. Income is measured as income per capita using purchasing power parity. Income per capita is scaled differentially between ranges to reflect the assumption of declining marginal utility of income. Income can be further scaled by multiplying by one minus the Gini coefficient of income distribution to adjust for differences in the income distribution between countries. The income distribution adjusted HDI is not reported because the ranking is similar to the standard HDI for the economies shown. There has been some debate about the strengths and weaknesses of this indicator (see United Nations Development Programme (1993); Doessel and Grounder (1991); and McGillivray (1991)).

APPENDIX D
INDUSTRY CONTRIBUTIONS TO ECONOMIC GROWTH

Over the past two decades, the Australian economy has grown by around 2.7 per cent a year. All sectors — agriculture, mining, manufacturing and services — have contributed to that growth. However, most of the growth has come from services — in particular finance, communications and community services.

This appendix investigates which industries have been most important in contributing to growth in the Australian economy over the past two decades.

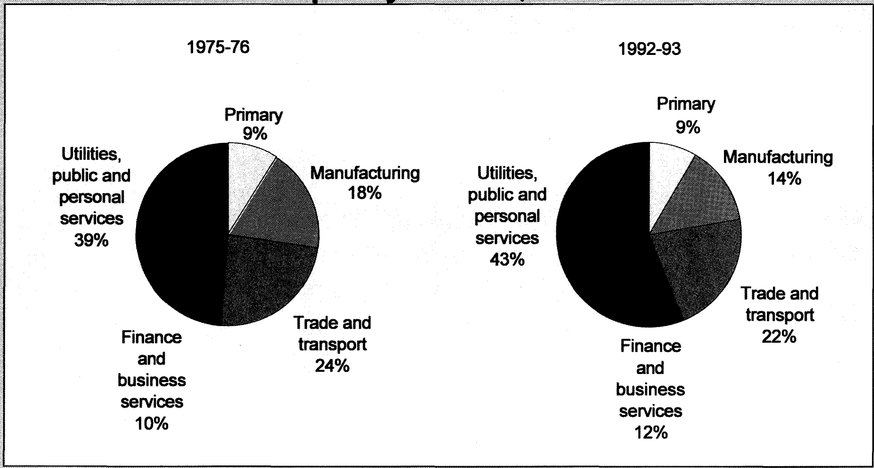
Contributions to growth

An industry's contribution to overall growth in output depends on the extent to which it grows and how important it is in the national economy. Either a small growth from a large industry or a large growth from a small industry can make a significant contribution to national growth. Figure D1 shows the relative size of each industry grouping and Figure D2 shows the growth in each industry grouping over the period 1975–76 to 1992–93.[1] (The industries which make up these groupings are displayed in Table D1 below).

The Utilities, public and personal services sector had the largest share of output and above average growth. It increased its share in the economy to 43 per cent in 1992–93. Finance activities had the strongest growth, but still represent a much smaller part of overall activity. Manufacturing had

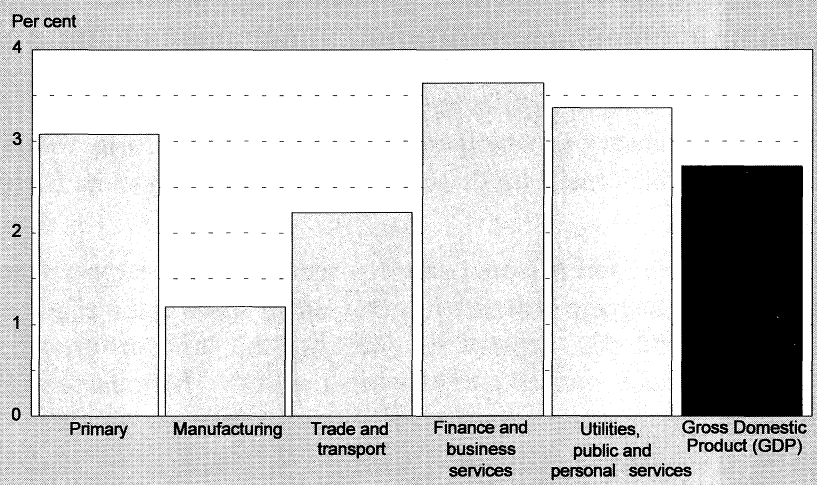
1 The measure of output adopted is gross product which is value added, measured as use of inputs plus any indirect taxes paid by the industry. Economy-wide output or GDP is obtained by adding together the gross products of each industry. Gross product is valued at average 1989–90 prices.

Figure D1
Share of national output by sector[a], 1975–76 and 1992–93



a Measured at average 1989–90 prices.
Source: Commission estimates based on ABS Cat no. 5206.0

Figure D2
Average annual growth in output by sector[a], 1975–76 to 1992–93



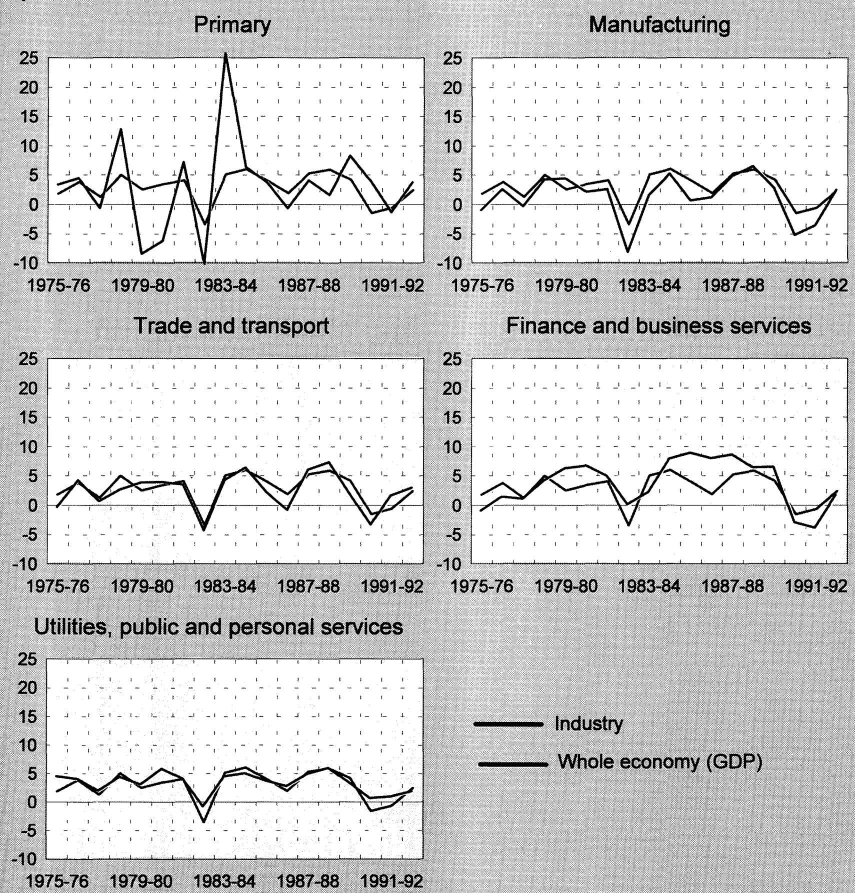
a Measured at average 1989–90 prices.
Source: Commission estimates based on ABS Cat no. 5206.0

the lowest growth and its share in total output declined from 18 to 14 per cent.

Growth has been at a variable pace for the different industry sectors (Figure D3). The output of the primary industries has been quite volatile, reflecting the vagaries of weather and developments in overseas markets.

Growth in Trade and transport industries moved very closely with GDP. The Utilities, public and personal services group also broadly followed the

Figure D3
Annual growth in output by sector, 1975-76 to 1992-93
(per cent)



Source: Commission estimates based on ABS Cat no. 5206.0

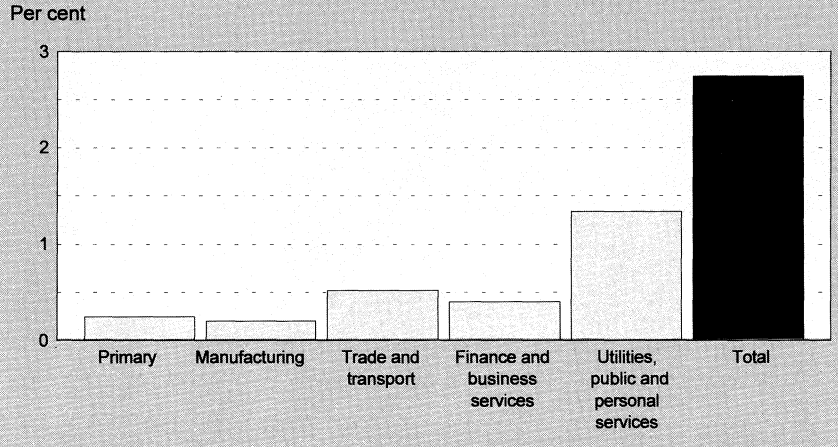
economy, although it held up better in cyclical downturns of 1982–83 and 1990–91.

The manufacturing sector suffered the effects of recession more than other sectors. It experienced heavy output losses in the recession of 1982–83 and did not recover in line with the national average for the next four years. From 1987–88 to the present, manufacturing has remained below, although more closely aligned with, economy-wide changes in output.

The Finance and business services group grew above the average from 1983–84 to 1989–90 and, indeed, in the late 1980s, showed much stronger growth than other sectors. The period of above-average growth followed the deregulation of financial markets and the boom in asset values.

Figure D4 summarises the average annual industry contributions to national growth between 1975–76 and 1992–93. The measures reflect the combined effect of an industry's share in national output and its own growth. The figure shows economy-wide growth of around 2.7 per cent. The contributions of the composite sectors add to that 2.7 per cent figure.

Figure D4
Average annual contributions to growth by sector[a], 1975–76 to 1992–93



a Annual rates, measured at average 1989–90 prices.
Source: Commission estimates based on ABS Cat no. 5206.0

The Utilities, public and personal services group was the largest contributor to growth over the period (1.4 percentage points). It was well ahead of the rest with Trade and transport being the next biggest contributor at 0.5 percentage points. Despite Manufacturing being ranked ahead of Primary industry and Finance and business services in absolute size, its slow growth translates into the smallest contribution to national output growth (0.2 percentage points).

Some of the growth of the services sector can be explained by increased specialisation in the economy. Over the last two decades, the main activities behind service industry growth were, finance, property and business services, and community services. To some extent, their growth is due to:

- increased specialisation in financial and business services and the displacement of in-house services through contracting out (such as information and communications technology, training, design and security services);
- higher specialist financial service requirements for the management of deregulated financial markets;
- higher specialist personal service requirements to support higher participation rates (particularly of females) in the workforce (such as household cleaning, child minding, and food preparation and presentation services); and
- additional private and government expenditures on education, health and welfare services.

Table D1 provides additional industry detail on growth contributions. Community services stands out within the Utilities, public and personal services group. However other industries within the group, apart from Ownership of dwellings, made more modest contributions. Indeed, their contributions were more modest than that of Manufacturing.

Table D1 also shows the variation in contributions over time. The Trade and transport industries increased their contribution to growth in the late 1980s and early 1990s. On the other hand, Finance, property and business services were important contributors to growth up to the mid-1980s but have declined in importance in recent times as did Community services activities — the largest single industry within the Utilities, public and personal services group. Value added from the ownership of dwellings provided a larger contribution to growth than manufacturing.

Table D1
Contributions to growth in Australia's GDP by sector and industry[a], 1975–76 to 1992–93 (percentage points)

Industry/sector	*1975–76 to 1980–81 (6 yrs)*	*1981–82 to 1986–87 (6 yrs)*	*1987–88 to 1992–93 (6 yrs)*	*1975–76 to 1992–93 (18 yrs)*
Primary industries	**0.1**	**0.4**	**0.3**	**0.2**
Agriculture, forestry, fishing and hunting	..	0.2	0.1	0.1
Mining	..	0.2	0.2	0.1
Manufacturing	**0.3**	**0.1**	**0.2**	**0.2**
Trade and transport	**0.6**	**0.4**	**0.6**	**0.5**
Wholesale and retail trade	0.3	0.3	0.4	0.3
Transport and storage	0.2	0.1	0.2	0.2
Finance, property and business services	**0.3**	**0.6**	**0.3**	**0.4**
Utilities, public and personal services	**1.6**	**1.4**	**1.3**	**1.4**
Electricity, gas and water	0.1	0.1	0.1	0.1
Construction	0.3	..	..	0.1
Communication	0.1	0.1	0.2	0.1
Public administration and defence	0.1	0.1	0.1	0.1
Community services	0.5	0.5	0.4	0.5
Recreation, personal and other services	0.1	0.1	0.1	0.1
Ownership of dwellings	0.5	0.3	0.3	0.3
Import duties	..	..	0.1	..
Imputed bank service charge	..	..	0.1	..
Growth in output of Australian economy	**2.9**	**2.8**	**2.5**	**2.7**

.. Nil or less than 0.05 per cent.
a Measured by gross product at average 1989–90 prices as defined in the Australian National Accounts.
Source: Commission estimates based on ABS data

Contribution of industries within manufacturing to economy-wide growth

The manufacturing sector is further examined for contributions to growth. Table D2 shows the share of 12 individual industries within the manufacturing sector for the 17 year period, 1976–77 to 1992–93.[2]

Changes in the importance of manufacturing in national output have been spread across activities rather than being confined to very large changes for individual areas of activity. This is reflected in the fact that shares in manufacturing output remained fairly stable. Paper and paper products was the best performer and increased its share from 7.3 to 9.3 per cent of manufacturing output.

Table D2
Industry share of manufacturing output, 1976–77 to 1992–93
(per cent)

Industry	*1976–77 to 1980–81 (5 yrs)*	*1981–82 to 1986–87 (6 yrs)*	*1987–88 to 1992–93 (6 yrs)*	*1976–77 to 1992–93 (17 yrs)*
Food, beverages and tobacco	21.2	20.8	21.3	21.1
Textiles	2.0	2.1	2.2	2.2
Clothing and footwear	4.3	4.5	3.8	4.2
Wood, wood products and furniture	4.8	4.8	5.0	4.9
Paper and paper products	7.3	8.2	9.3	8.3
Chemical, petroleum and coal products	9.5	9.7	9.9	9.8
Non-metallic mineral products	5.1	5.0	4.8	4.9
Basic metal products	11.0	11.5	11.6	11.4
Fabricated metal products	6.4	6.2	7.0	6.5
Transport equipment	12.6	12.4	10.5	11.7
Other machinery and equipment	10.8	10.0	10.1	10.3
Miscellaneous manufacturing	4.5	4.6	4.8	4.6
Total manufacturing	**100.0**	**100.0**	**100.0**	**100.0**
Manufacturing share in national output	**18.1**	**16.4**	**15.2**	**16.5**

Source: Commission estimates based on ABS data

2 Data for the full 18 year period used in the previous section are not available from the ABS.

However, this overall result masks the considerable year-to-year variation in the output of individual industries. The growth experience of individual manufacturing industries, for the slightly shorter period 1977–78 to 1992–93, is shown in Figure D5. In the majority of years, individual industries have either positive or negative growth in common with the manufacturing total, but the magnitudes of change varying substantially.

The general picture is one of diversity of experience, reflecting different impacts of changes in consumption, investment and export demands.

Figure D5
Annual growth in output of manufacturing industries[a], 1977-78 to 1992-93 (per cent)

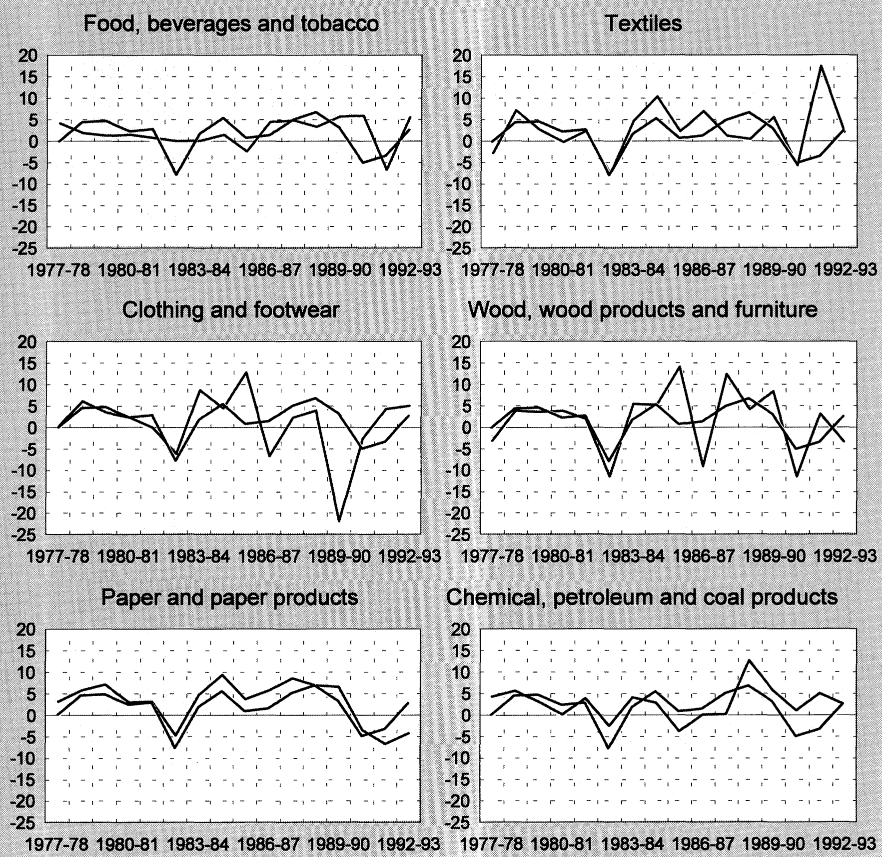
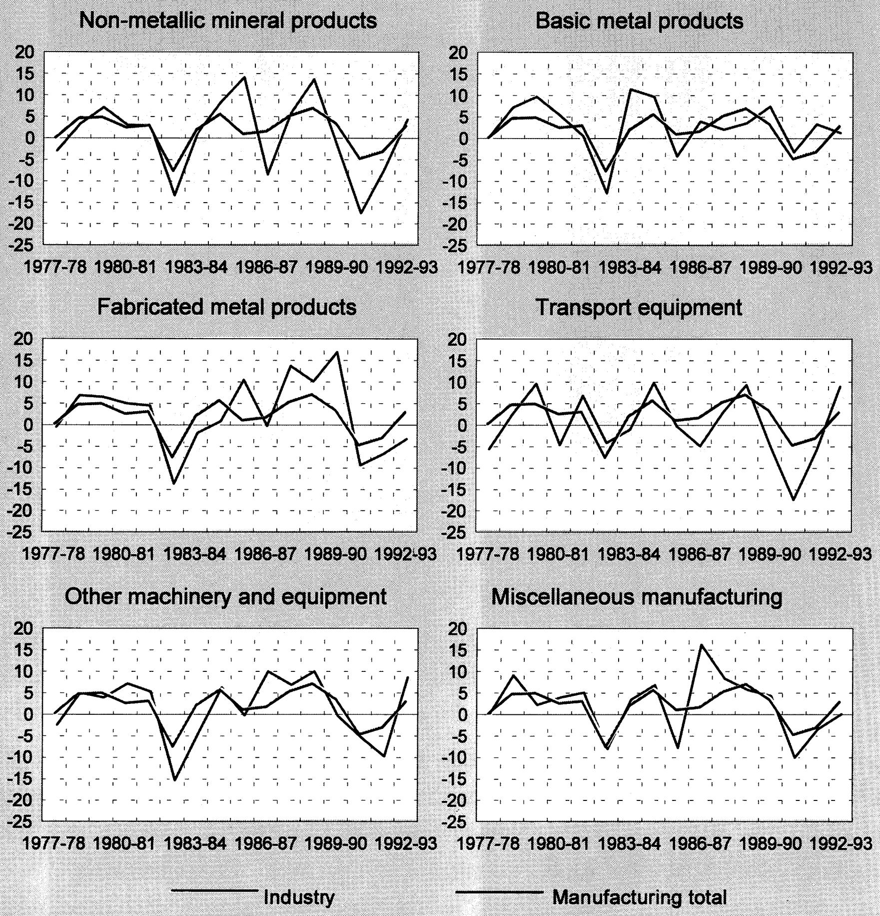


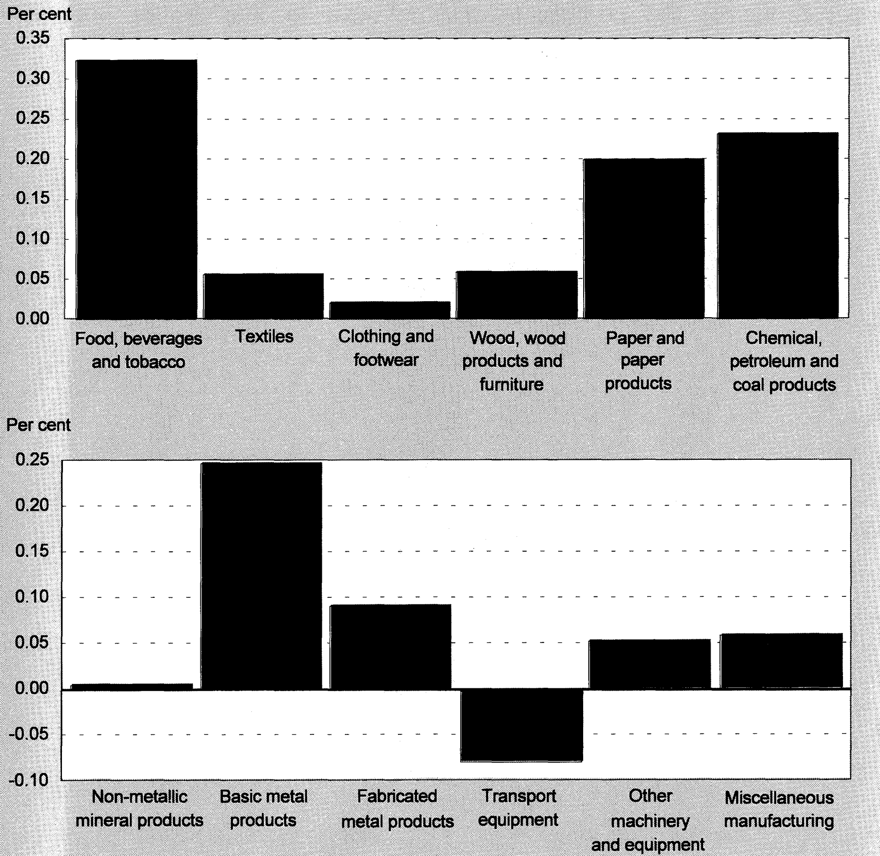
Figure D6 summarises the average annual industry contributions to growth. These measures reflect the combined effect of an industry's share in manufacturing output and its own growth. The annual average manufacturing output growth over the period was 1.2 per cent and the contributions of the composite sectors sum to that figure (subject to rounding).

Figure D5 (continued)



a The growth for each industry is compared to the growth in total manufacturing.
Source: Commission estimates based on ABS Cat no. 5206.0

Figure D6
Average annual contribution to growth in manufacturing output by industry, 1977–78 to 1992–93



Source: Commission estimates based on ABS Cat no. 5206.0

Food, beverages and tobacco — the largest industry in manufacturing — was also one of the largest contributors to manufacturing growth. Nevertheless, working from smaller bases the paper, chemicals and basic metals industries provided comparable growth contributions. The Transport equipment component is the second largest industry within manufacturing, but made a negative contribution to manufacturing growth.

APPENDIX E
AUSTRALIA'S RECENT TRADE PERFORMANCE

Throughout the 1980s and into the 1990s, the Australian economy has become more trade exposed. The volume of trade (imports plus exports of goods and services) has increased from the equivalent of about 30 per cent of the output of the economy in 1982–83 to nearly 40 per cent in 1992–93. The growth in trade was dominated by trade in goods . Trade in services also grew over this period, but still only accounts for about 20 per cent of the volume of trade in 1992–93.

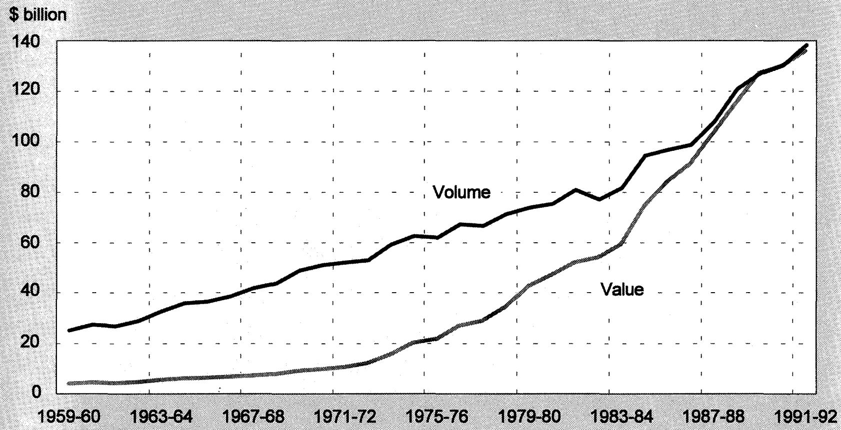
Manufactured exports have grown strongly, but from a small base. Imports of manufactures still far outweigh exports and Australia continues to be a resource-based exporter. In 1992–93, minerals and processed mineral products accounted for about 40 per cent of the volume of Australia's exports and agricultural and agriculture-related commodities a further 25 per cent.

This appendix documents changes over the last decade in the trade orientation of the Australian economy and in the industry composition of that trade. The analysis is an extension of that provided in the Commission's 1991–92 Annual Report. In that analysis, trade values were deflated by the implicit price deflator for GDP to obtain a broad indication of changes in the purchasing power of Australia's trade. This analysis also measures movements in the volume of trade, calculated as the value of trade deflated by commodity-specific price indexes.

Australia's trade growth and trade orientation

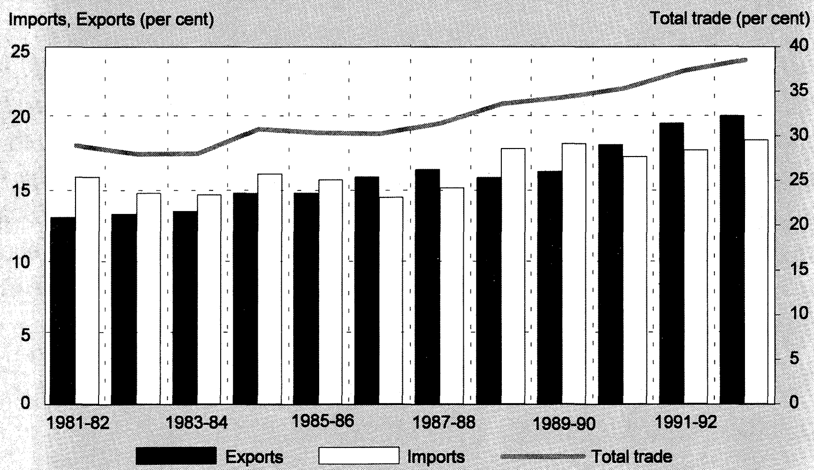
The value of Australia's trade (exports plus imports) has risen more than ten-fold over the period 1959–60 to 1992–93. However, the volume of

Figure E1
Volume and value of trade[a], 1959–60 to 1992–93



a Volume of trade measured in constant 1989-90 prices.
Source: ABS Cat no.5206.0

Figure E2
Volume of exports, imports and total trade as a share of GDP, 1981–82 to 1992–93[a]



a Measured in constant 1989–90 prices.
Source: ABS Cat no. 5206.0

Table E1
Trade orientation of selected countries[a], 1963–64 to 1991–92

Country	1963 –64	1969 –70	1975 –76	1981 –82	1987 –88	1991 –92	Annual growth rate[b]
							(%)
Australia[c]	0.24	0.26	0.20	0.00	0.30	0.37	1.36
Canada[d,e]	0.30	0.40	0.40	0.49	0.56	0.71	2.48
France[d,e]	0.25	0.33	0.39	0.46	0.49	0.56	2.72
Germany[d,e]	0.31	0.41	0.49	0.56	0.61	0.75	2.71
Ireland[d,e]	0.58	0.77	0.80	1.02	1.29	1.36	2.99
Japan[d,e]	0.14	0.18	0.23	0.26	0.24	0.27	2.23
Netherlands[d,e]	0.66	0.84	0.97	1.04	1.21	1.34	2.27
New Zealand[d,e,f]	0.50	0.51	0.54	0.62	0.71	0.80	1.64
Switzerland[d,e]	0.43	0.51	0.54	0.72	0.80	0.82	2.64
United Kingdom[d,e]	0.36	0.42	0.48	0.53	0.59	0.64	1.95

a Volume of exports plus imports as a proportion of real GDP for the period 1963 to 1991.
b For the period 1963–64 to 1991–92.
c Based on constant 1989–90 prices.
d For the calendar year beginning 1 January (ie the 1963–64 financial year column also refers to the 1963 calendar year).
e Based on 1985 price levels.
f For the financial year beginning 1 April.
Source: OECD (1992b), ABS Cat no. 5206.0

trade (which excludes the effects of price increases over the period) has shown less of an increase (Figure E1).

With the strong growth in trade, Australia's trade orientation, as measured by the volume of exports plus imports expressed as a percentage of real GDP, has also grown significantly. The volume of trade was equivalent to about 30 per cent of real GDP in 1982–83 but had grown to around 40 per cent by 1992–93 (Figure E2).

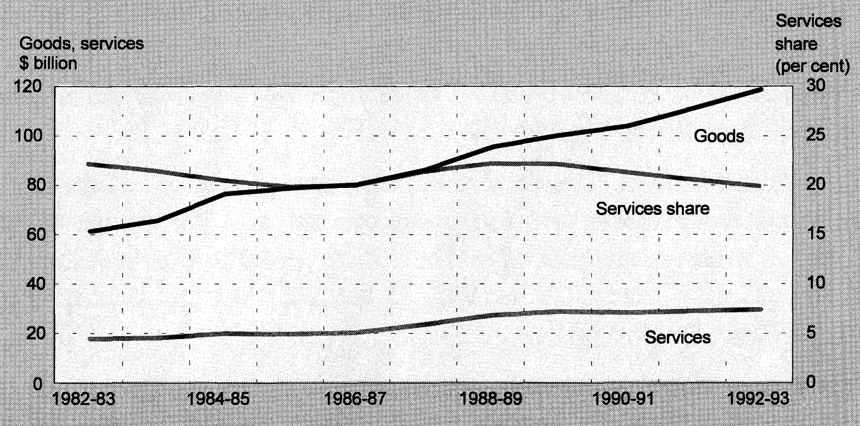
The growth in trade orientation was achieved by strong growth in the volume of both exports and imports which grew by 6.4 and 5.4 per cent per annum respectively. The growth rate in imports resulted in a 60 per cent rise in the volume of imports over the period 1981–82 to 1992–93. This growth was in excess of growth in the volume of goods and services purchased in Australia over this period. Thus the economy experienced greater import penetration with imports accounting for about 15 per cent of real gross national expenditure in 1981–82, rising to around 19 per cent in 1992–93.

The growth in trade orientation is not unique to Australia. Indeed, Australia achieved a relatively low growth rate in trade orientation over the period 1963–64 to 1991–92 (Table E1).

Composition of trade

The volume of trade in goods and services grew by some 90 per cent in the decade to 1992–93. This comprised a 95 per cent growth in the volume of goods traded and a 70 per cent rise in the volume of services traded. However, the share of services in the total volume of trade (20 per cent in 1992–93) changed only marginally over the period. Trends in imports and exports of goods and services are shown in Figure E3.

Figure E3
Volume of trade in goods and services and services share in total trade[a], 1982–83 to 1992–93



a Total trade is volume of imports plus exports. Measured in constant 1989–90 prices.
Source: Unpublished ABS data

Figure E4
Volume of trade by industry group[a], 1981–82 and 1992–93
($ billion)

a Measured in constant 1989–90 prices.
Source: Commission estimates based on ABS data

More detail on the industry groups which provided the growth in goods traded is given in Figure E4. Data on merchandise trade are classified according to six industry groups for the years 1981–82 and 1992–93.[1]

The strong growth in exports occurred in Agriculture-related manufacturing, Mining and Mining-related manufacturing. Strong growth was also observed in Other manufacturing exports. However, this growth was achieved on a smaller base.

Imports continue to be dominated by goods classified to the Other manufacturing category and, to a lesser extent, the highly-assisted TCF and PMV industry groups. Imports of Mining-related manufacturing also increased markedly.

1 For a description of the six industry groups used in this appendix, see IC (1992d, p.60).

Overall, Australia remains a net exporter of agricultural and mining commodities (and related manufactures) and a net importer of manufactures.

Traditional export industries have provided the main contribution to the increase in export orientation of the economy. While there have been substantial movements in the trade orientation of particular manufacturing industries, they have generally been from a small export base (Appendix F). Consequently, while their export growth is significant for the industry concerned, it has yet to contribute substantially to the overall trade orientation of the economy. Thus, as shown in Table E2, ten industries in agriculture, mining and related areas accounted for about 60 per cent of merchandise exports in 1992–93. These same industries contributed about 65 per cent of merchandise exports in 1981–82.

Table E2
Ten largest contributors to the value of merchandise exports, 1981–82 and 1992–93 (per cent)

Industry	*1981–82*	*1992–93*
Black coal	12.5	13.3
Cereal grains, sheep and cattle	21.0	8.9
Meat (except small goods or poultry)	9.2	7.7
Non-ferrous metals nec, smelting, refining, extruding	0.6	6.7
Oil and gas	1.7	5.4
Iron ores	6.5	5.1
Alumina	6.0	4.1
Petroleum refining	2.9	2.6
Aluminium	0.9	2.6
Iron & steel basic products	2.2	2.2
Total above	**63.5**	**58.5**
Total exports ($ billion)	**18.3**	**56.6**

Source: ABS, Foreign Trade Statistics on magnetic tape

Table E3
Ten largest contributors to the value of merchandise imports, 1981–82 and 1992–93 (per cent)

Industry	*1981–82*	*1992–93*
Electronic equipment nec	4.8	10.7
Motor vehicles and parts	8.5	10.6
Industrial machinery and equipment nec	5.7	5.7
Oil and gas	8.1	3.9
Aircraft	2.7	3.0
Electrical machinery equipment nec	3.2	2.9
Measuring, professional & scientific equip nec	1.9	2.9
Organic industrial chemicals nec	2.4	2.9
Petroleum refining	5.2	2.7
Radio and TV receivers, audio equipment	2.4	2.7
Total above	**45.0**	**47.9**
Total imports ($ billion)	**23.3**	**59.1**

Source: ABS, Foreign Trade Statistics on magnetic tape

Similarly, in 1992–93, about half of Australia's merchandise imports came from ten industries and these same industries accounted for a similar share of merchandise imports in 1981–82 (Table E3).

APPENDIX F
TRADE ORIENTATION OF MANUFACTURING

Australia's manufacturing sector is primarily driven by domestic demand. However, there has been a steady increase in the trade orientation of the sector, with both exports and imports assuming greater importance.

This appendix examines the trade orientation of Australia's manufacturing sector. Manufacturing output has grown since the mid-1970s, but slower than services (Appendix D). Manufacturing has been particularly hard hit by the fall in domestic demand in the recent recession. On the trade side, there has been increased exposure to international competition through lower border protection, while export prospects have been enhanced by, among other things, export assistance and facilitation schemes (Appendix O).

The information base for the appendix comes from two sources. A data series commencing in 1968–69 can be used to illustrate changes in manufacturing's trade orientation. A series commencing in 1980–81 is used to examine changes in trade volumes.

Trade orientation

Figure F1 shows the increase in the trade orientation of manufacturing since 1968–69 as measured by the share of exports in domestic manufacturers' sales and the share of imports in domestic sales. The value of exports and imports have both increased over the period — exports slightly more than imports (14 per cent annual average growth versus 13 per cent for imports). The importance of exports picked up in the late 1980s, and now represents some 20 per cent of total sales.

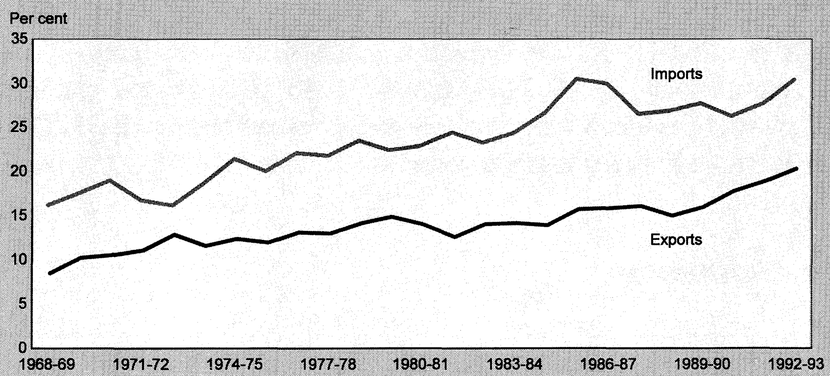
Imports of manufactures have remained substantially above exports. Australia's status as a net importer of manufactures reflects its comparative advantage as a net exporter of commodities (Appendix G).

Export orientation

The importance of exports varies markedly between industries in manufacturing (Table F1). For many industries, growth in exports has been developing from a small base. Basic metal products stands out as an industry in which the importance of exports is not only high, but has increased markedly to represent over half of total sales. Export orientation has increased in Textiles and Other machinery and equipment .

The importance of exports as a source of growth for manufacturing as a whole is reflected in Figure F2, which removes price effects to concentrate on sales volumes. On this basis, exports contributed about two thirds of

Figure F1
Manufacturing export orientation and import penetration[a], 1968–69 to 1992–93



a Export orientation is the share of exports in total sales of domestic manufacturers. Import penetration is the share of imports in total domestic sales.
Source: Commission estimates based on ABS data

Table F1
Share of exports in value of sales by manufacturing industries, 1968–69 to 1992–93 (per cent)

	1968–69 to 1974–75 (7 yrs)	*1975–76 to 1980–81 (6 yrs)*	*1981–82 to 1986–87 (6 yrs)*	*1987–88 to 1992–93 (6 yrs)*	*1968–69 to 1992–93 (25 yrs)*
Food, beverages and tobacco	21.7	24.1	19.4	20.2	21.4
Textiles	9.1	15.0	26.0	31.3	19.9
Clothing and footwear	1.0	0.8	0.7	2.5	1.2
Wood, wood products and furniture	2.2	5.0	5.8	6.9	4.9
Paper and paper products	1.6	1.7	2.0	2.7	2.0
Chemical, petroleum and coal products	4.4	5.8	14.8	11.6	9.0
Non-metallic mineral products	1.0	1.1	1.2	1.8	1.2
Basic metal products	23.4	34.6	39.4	53.4	37.1
Fabricated metal products	3.3	2.8	2.5	5.4	3.5
Transport equipment	5.2	3.5	5.6	8.8	5.7
Other machinery and equipment	7.2	8.5	10.7	15.9	10.4
Miscellaneous manufacturing	5.4	5.4	5.3	8.5	6.1
Total manufacturing	**10.9**	**13.4**	**14.2**	**17.2**	**13.8**

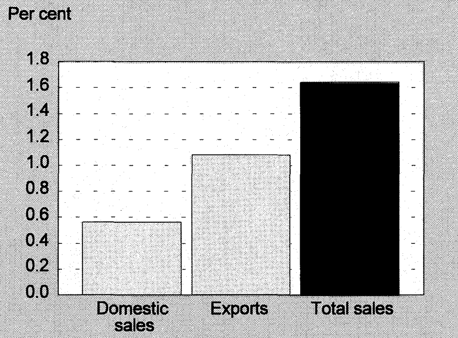
Source: Commission estimates based on ABS data

growth in manufacturers' sales since the beginning of the 1980s.[1] This is despite the fact that domestic sales are considerably larger than export sales.

The export contribution to growth in manufacturing has been most pronounced in the 1990s (Figure F3). Indeed, when growth in the volume of sales to the domestic market declined in the early 1990s, export volumes expanded and had a stabilising impact on overall manufacturing output. This additional growth contribution from exports did not occur in the recession of 1982–83.

1 The export market's contribution to manufacturing sales growth depends on export growth weighted according to its relative size in total sales.

Figure F2
Average contribution of domestic and export sales to growth in total volume of sales[a], 1980–81 to 1992–93



a Annual averages at 1989–90 prices and weighted according to share in total sales of Australian produced goods.

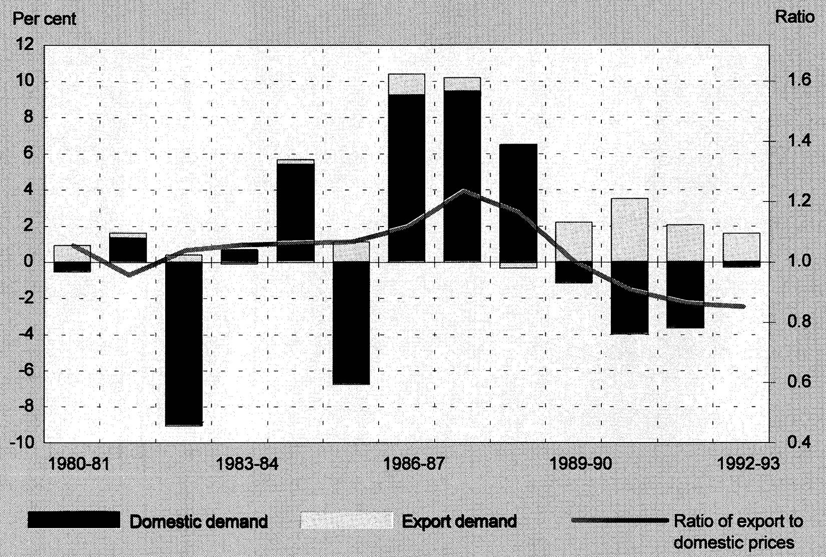
Source: Commission estimates based on ABS data

However, declining export prices relative to domestic prices partially offset the expanding export volumes as a source of revenue to manufacturing. From 1980–81, export prices, in general rose relative to domestic prices in periods of high domestic demand but fell in times of lower domestic demand (Figure F3). This was particularly the case in the early 1990s.

Table F2 provides details for industries within manufacturing for the six years to 1992–93. It shows the contribution of exports and domestic markets to sales volumes. The importance of exports in the 1990–92 period, seen for manufacturing as a whole, applied to individual industries. Indeed, for the domestically-oriented Other machinery and equipment industry, export volumes provided the only positive source of industry growth from 1988–89 to 1992–93. The very large increase in exports of Textiles in 1990–91 and 1991–92 stands out. Wool prices went down and exports of partly processed wool rose relative to exports of raw wool.

McKinsey (1993) suggests that many exporters have developed new markets and intend to supply them even when domestic demand picks up. Exporting has stabilised manufacturers sales and more so in recent times. However, a history of switching between domestic and export markets and the recent decline in export growth from 1991–92, may be cause for some caution in making judgements about future sources of growth.

Figure F3
Annual contributions of domestic and export sales to total volume of sales and the ratio of export to domestic prices, 1980–81 to 1992–93



Source: Commission estimates based on ABS data

Import penetration

The growth of domestic manufacturing activity is determined not only by its ability to compete for sales in export markets, but also by its ability to secure sales in the domestic market against import competition.

Imports have grown in importance as a source of supply of manufactures for the Australian market (Table F3). While the importance of imports varies markedly between manufacturing industries, that importance has grown in all cases over the period. Textiles, Transport equipment, Other machinery and equipment and Miscellaneous manufacturing have shown strong growth in imports.

Table F2
Contributions of domestic and export sales to total volume of sales, by manufacturing industry[a], 1987–88 to 1992–93
(percentage points)

		1987 –88	*1988 –89*	*1989 –90*	*1990 –91*	*1991 –92*	*1992 –93*
Food, beverages and tobacco	D	7.2	4.9	-2.6	2.8	-3.1	0.1
	E	0.7	-1.6	2.3	1.7	0.8	2.3
Textiles	D	13.0	5.8	-4.2	-23.7	-4.3	12.3
	E	-7.1	-5.9	-2.2	23.2	18.0	-1.3
Clothing and footwear	D	8.4	3.2	-13.3	-7.6	-4.4	2.4
	E	0.3	0.2	0.8	0.2	0.6	0.6
Wood, wood products and furniture	D	13.9	3.2	-7.1	-7.2	-2.7	-2.3
	E	..	..	..	..	..	..
Paper and paper products	D	16.2	7.3	-13.2	-0.3	-9.9	-4.0
	E	..	0.3	0.4	0.2	0.2	0.6
Chemical, petroleum and coal products	D	8.6	9.7	30.5	2.0	0.9	1.1
	E	2.0	0.3	1.0	3.1	0.9	1.8
Non-metallic mineral products	D	7.7	11.3	0.6	-11.3	-3.5	2.4
	E	-1.2	-0.5	0.1	0.9	1.3	..
Basic metal products	D	1.9	4.4	-5.4	-11.0	-1.6	-1.7
	E	2.4	0.3	10.5	10.0	5.8	2.1
Fabricated metal products	D	18.4	6.0	-6.9	-6.8	-7.3	-6.0
	E	0.1	2.5	0.4	0.1	1.3	-0.6
Transport equipment	D	13.2	9.1	5.6	-12.3	-9.4	0.6
	E	2.2	-1.1	0.8	2.7	-0.3	1.7
Other machinery and equipment	D	9.6	9.8	-8.9	-0.5	-3.6	-2.5
	E	1.3	0.4	2.5	3.7	2.5	6.2
Miscellaneous manufacturing	D	7.7	3.9	-7.4	2.0	-1.2	-2.2
	E	1.5	1.0	0.5	2.3	2.4	-0.1
Total manufacturing	**D**	**9.4**	**6.5**	**-1.2**	**-4.0**	**-3.7**	**-0.4**
	E	**0.8**	**-0.3**	**2.2**	**3.5**	**2.1**	**1.7**
Total sales		**10.2**	**6.2**	**1.0**	**-0.4**	**-1.6**	**1.3**

D Domestic demand.
E Export demand.
.. Nil or less than 0.05 percentage points.
a Growth in domestic and export sales weighted according to its base period share in total sales. The sum of each contribution is equal to growth in industry sales.
Source: Commission estimates based on ABS data

Table F3
Share of imports in value of domestic sales, by manufacturing industry, 1968–69 to 1992–93 (per cent)

	1968–69 to 1974–75 (7 yrs)	*1975–76 to 1980–81 (6 yrs)*	*1981–82 to 1986–87 (6 yrs)*	*1987–88 to 1992–93 (6 yrs)*	*1968–69 to 1992–93 (25 yrs)*
Food, beverages and tobacco	4.7	6.4	7.8	8.2	6.7
Textiles	28.0	33.0	39.4	40.0	34.8
Clothing and footwear	11.8	20.2	22.5	26.4	19.9
Wood, wood products and furniture	8.3	11.3	12.9	13.1	11.3
Paper and paper products	17.2	17.9	18.6	17.9	17.9
Chemical, petroleum and coal products	24.5	28.1	29.8	25.6	26.9
Non-metallic mineral products	10.0	10.2	11.1	12.2	10.9
Basic metal products	8.3	8.5	12.0	18.4	11.7
Fabricated metal products	9.2	10.3	11.9	13.9	11.2
Transport equipment	26.5	31.3	36.6	38.6	33.0
Other machinery and equipment	37.0	46.3	57.0	59.7	49.5
Miscellaneous manufacturing	22.3	28.1	32.1	33.0	28.6
Total manufacturing	**18.0**	**22.2**	**26.3**	**27.6**	**23.3**

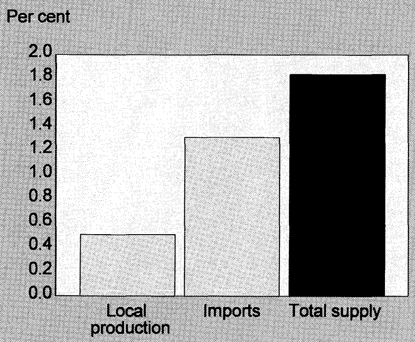
Source: Commission estimates based on ABS data

Imports now supply about 30 per cent of the domestic market for manufactures (Figure F1). Even though imports represent a smaller proportion of the domestic market than domestic supplies, they have made the larger contribution to growth in the domestic market since 1980–81 (Figure F4).

The growth in importance of imports in supplying domestic markets has resulted in two main changes:

- Foreign suppliers now have a larger share of the domestic market and an expanded base from which to compete with domestic producers. In this environment, domestic costs and supply conditions are more likely to be influenced by the international environment than was the case at the beginning of the period.

Figure F4
Average contribution of local production and imports to growth in total volume of domestic sales[a], 1980–81 to 1992–93



a Annual averages at 1989-90 prices and weighted according to shares in total domestic supply.
Source: Commission estimates based on ABS data

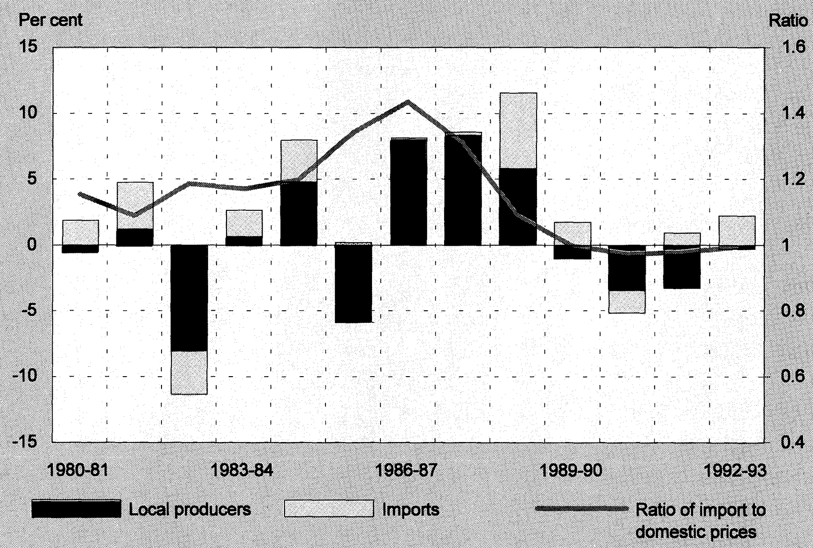
- Increases in domestic demand for manufactures would, when weighted by the average import penetration, generate a larger volume of imports than was the case two decades ago.

As with exports, the importance of imports varies from year to year (Figure F5). While imports and domestic supplies both declined during recessions, imports have provided the main source of supply in the years following the recession with some lag in the pick-up of local sales. In other years, nearly all growth is contributed by sale of local manufactures (eg 1986–87 and 1987–88).

To some degree, changing relative prices have counter-balanced changes in import volumes (Figure F5). For example, in the three years to 1987–88, higher relative import prices increased the import bill, although import volumes were not growing. After that time, import prices grew slower than domestic prices balancing the growth in import volumes.

Table F4 provides details for each manufacturing industry for the six-year period to 1992–93. It shows the contribution of local produce and imports to growth in domestic sales volumes. Sales by domestic industries were generally the major contributors to year-to-year supply changes (which may constitute either positive or negative growth).

Figure F5
Annual contributions of domestic production and imports to total volume of domestic sales and the ratio of import to domestic output prices, 1980–81 to 1992–93



Source: Commission estimates based on ABS data

Not all industries have common experiences. In the case of three diverse industries — Food, beverages and tobacco, Clothing and footwear, and Basic metal products — import penetration has increased against a background of large fluctuations in the demand for domestic supplies. There is no clear year-to-year pattern for either imports or domestic supplies for the industries Other machinery and equipment and Miscellaneous manufacturing.

Table F4
Local and import contributions[a] to total volume of domestic sales by manufacturing industry, 1987–88 to 1992–93 (percentage points)

		1987 –88	*1988 –89*	*1989 –90*	*1990 –91*	*1991 –92*	*1992 –93*
Food, beverages and	D	8.4	5.7	-2.9	3.2	-3.6	0.1
tobacco	M	0.5	1.3	0.4	0.2	0.3	0.3
Textiles	D	12.5	5.1	-3.4	-17.9	-4.2	14.1
	M	3.3	6.0	1.5	-5.8	2.0	1.0
Clothing and footwear	D	6.9	2.5	-10.6	-5.8	-3.3	1.8
	M	3.6	1.2	2.3	2.5	1.0	1.8
Wood, wood products and	D	13.1	3.0	-6.5	-6.6	-2.5	-2.2
furniture	M	1.0	2.2	-1.5	-1.8	1.1	0.2
Paper and paper products	D	13.5	6.1	-11.1	-0.2	-8.4	-3.2
	M	1.8	0.9	-1.0	-1.3	2.8	1.2
Chemical, petroleum and	D	7.1	8.1	24.7	1.7	0.8	1.0
coal products	M	2.3	4.8	2.6	-0.8	-0.6	4.5
Non-metallic mineral	D	7.0	10.1	0.5	-10.0	-3.2	2.2
products	M	1.2	2.5	0.2	-1.8	0.1	-0.4
Basic metal products	D	3.0	7.1	-8.2	-18.9	-3.2	-3.7
	M	0.8	3.1	1.6	1.5	4.5	2.3
Fabricated metal products	D	16.8	5.5	-6.3	-6.1	-6.7	-5.5
	M	1.4	2.4	1.2	-2.1	0.2	0.6
Transport equipment	D	9.8	7.1	3.8	-8.2	-6.4	0.4
	M	0.5	17.5	3.6	-3.0	-2.4	-0.8
Other machinery and	D	5.0	5.1	-4.3	-0.2	-1.8	-1.2
equipment	M	6.8	12.6	4.6	-4.7	3.6	7.3
Miscellaneous	D	5.7	2.9	-5.4	1.4	-0.9	-1.6
manufacturing	M	2.5	4.9	1.6	-2.2	2.7	1.6
Total manufacturing	**D**	**8.5**	**5.9**	**-1.0**	**-3.4**	**-3.3**	**-0.4**
	M	**2.3**	**5.8**	**1.8**	**-1.7**	**1.0**	**2.3**
Total supplies		**10.8**	**11.6**	**0.8**	**-5.1**	**-2.3**	**1.9**

D Local (domestic) producers.
M Imports.
.. Nil or less than 0.05 percentage points.
a Growth in sales of locally-produced and imported goods weighted according to base-period share in total sales in Australia. The sum of each contribution is equal to growth in total domestic market sales.
Source: Commission estimates based on ABS data

APPENDIX G
INTRA-INDUSTRY TRADE

Australia has traditionally recorded very low levels of intra-industry trade (IIT) compared with other industrialised nations, depending instead on exports of commodities to finance imports of manufactured goods. During the 1980s, Australia's manufacturing industry policy changed towards encouraging industries to become more internationally competitive and export-oriented. This appendix shows that there has been a significant increase in IIT in a number of manufacturing industries.

Intra-industry trade (IIT) refers to the simultaneous export and import of goods produced within the same industry classification. A significant proportion of this trade, particularly in manufactures, may not be explained by traditional theories of comparative advantage based on factor endowments, but may be due to a variety of factors associated with industrialisation, such as product differentiation, consumer taste for variety, the global integration of production and government intervention designed to promote exports.

Inter-industry trade occurs when trade within an industry is one-way and is complemented by one-way trade in the reverse direction in another industry. For example, the pattern of trade between Australia and Japan is predominantly inter-industry in nature. Historically, Australia has exported commodities and imported manufactured goods, while Japan imports commodities and exports elaborately transformed manufactures.

Australia's pattern of trade is significantly different from the pattern of trade between other industrialised nations which has been characterised by a significant growth in IIT of highly differentiated consumer goods, and highly specialised parts and intermediate goods. In the context of trade liberalisation, the growth of IIT in the manufacturing sector has potential policy implications as adjustment costs and restructuring problems may be reduced if trade expansion takes the form of IIT rather than inter-industry trade.

Box G1
The measurement of IIT

A significant body of literature exists on the question of intra-industry trade. Much of this literature contains considerable debate about the best measurement of two-way trade in similar goods (IIT). However, the most popular and simplest measure is the unadjusted Grubel and Lloyd (1975) index which measures two-way trade as a percentage of total trade. According to their formula, $IIT=[(X+M)-|X-M|]/X+M$, where X = exports and M = imports.

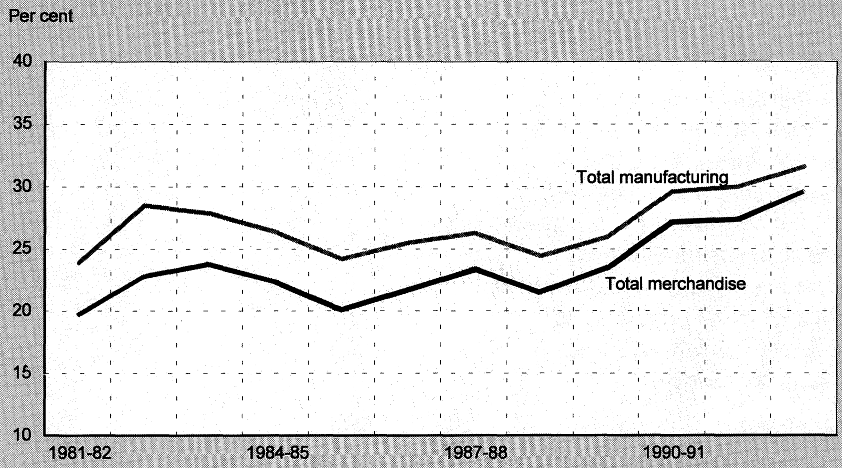
The IIT index measures the extent to which imports within the industry classification under study are 'balanced' by exports. The balanced trade is taken to be intra-industry trade, and the residual industry trade surplus or deficit is taken to be inter-industry trade. Thus perfectly balanced trade produces an IIT index of 100. One way trade in an industry — imports with no exports or vice versa — produces an IIT index of 0.

For this study, the IIT index was calculated for 200 industries at the 4-digit level of ASIC (Australian Standard Industrial Classification) and 55 industries at the 3-digit level of ASIC. While the index measures the value of 'balanced' trade as a percentage of total trade, it gives no indication as to the size of that balanced trade. To measure this, the total value of two-way trade in each industry is summed as a measure of the value of IIT for total merchandise trade (mining, agriculture and manufacturing); for total manufacturing; and for individual sectors and end-use categories.

The difference between the index and the value of IIT can be illustrated as follows. The industry producing bread (ASIC 2161) has a very high IIT index, but very little trade. In contrast, the industry producing computers and telecommunication equipment (ASIC 3352) has a low IIT index because imports far outweigh exports, but exports are still significant in this category resulting in a high level of two-way trade in value terms.

Although the measures are sometimes complicated to interpret, they are useful precisely because they focus on both imports and exports and can be used to monitor an industry's changing competitive or comparative advantage. A sustained increase in the IIT index indicates that specialisation is occurring within that industry, while a decrease in the IIT index indicates that trade is becoming increasingly one-way within that industry. That is, adjustment pressure or specialisation is occurring between that industry and other industries.

Figure G1
IIT index for manufacturing and merchandise trade[a], 1981–82 to 1992–93



a 4 digit ASIC.
Source: Commission estimates based on ABS data

This appendix reviews some of the trends and influences on Australia's IIT in merchandise.

Overall trends in IIT

Australia's IIT has grown since 1981–82, reaching a peak in 1992–93 of 29 per cent of total merchandise trade and 31 per cent of total manufacturing trade, measured at the 4-digit ASIC level (Figure G1). The most noticeable increase came with the onset of the 1990s. The earlier increase in 1982–83 proved to be transient. However, despite the overall increase, Australia's IIT is still low when compared with levels recorded for most European and North American countries of over 60 per cent since the 1960s.

The increase in the average IIT index shown in Figure G1 masks the dramatic changes that have occurred in the volume of total trade since

Table G1
Industries contributing most to the increase in the value of *intra*-industry trade, 1981–82 to 1992–93 (per cent)

Industry	*Share of increase*	*Dominant trade*
Oil and gas	15.2	X
Electronic equipment nec	7.4	M
Petroleum refining	7.3	M
Motor vehicles and parts	7.0	M
Inorganic industrial chemicals nec	4.5	M
Industrial machinery and equipment nec	3.9	M
Iron and steel basic products	3.2	X
Pharmaceutical and veterinary products	3.1	M
Fabricated metal products nec.	2.5	M
Non-ferrous metals nec, rolling, drawing, extruding	2.4	M
Total above	**56.5**	

Source: Commission estimates based on ABS, Foreign Trade on Magnetic Tapes

Table G2
Industries contributing most to the increase in the value of *inter*-industry trade, 1981–82 to 1992–93 (per cent)

Industry	*Share of increase*	*Dominant trade*
Black coal	10.7	X
Electronic equipment nec	8.7	M
Non-ferrous metals nec, smelting refining	7.5	X
Motor vehicles and parts	7.0	M
Meat (except smallgoods or poultry)	5.5	X
Iron ores	3.3	X
Industrial machinery and equipment nec	3.3	M
Aluminium smelting	2.6	X
Alumina	2.5	X
Cereal grains, sheep and cattle	2.4	X
Total above	**53.4**	

Source: Commission estimates based on ABS, Foreign Trade on Magnetic Tapes

1981–82 (Appendix E). This analysis of IIT relates to the value rather than volume of trade and covers 'balanced' trade, rather than total trade.

The increase in IIT is not widespread but is due to a significant increase in the value of two-way trade in a few large industries (Table G1). There has also been a significant increase in the value of inter-industry (unmatched) trade in a few large industries (Table G2). The value of IIT is growing slightly faster than the value of inter-industry trade and this is producing a gradual rise in the IIT index.

Composition of IIT by industry sector

Trends in IIT can be shown according to industry sectors — along the lines set out in Appendix E. For that analysis, Agriculture and Mining were separately identified, but total manufacturing was split into four categories: Mining-related, Agriculture-related, Highly-assisted and Other (non-resource based) manufacturing. For this analysis, highly-assisted manufacturing is further split into Passenger motor vehicles (PMV) and Textiles, clothing and footwear (TCF). PMV has been subject to an export facilitation scheme (since 1982), which is explicitly designed to facilitate IIT in the presence of tariffs.

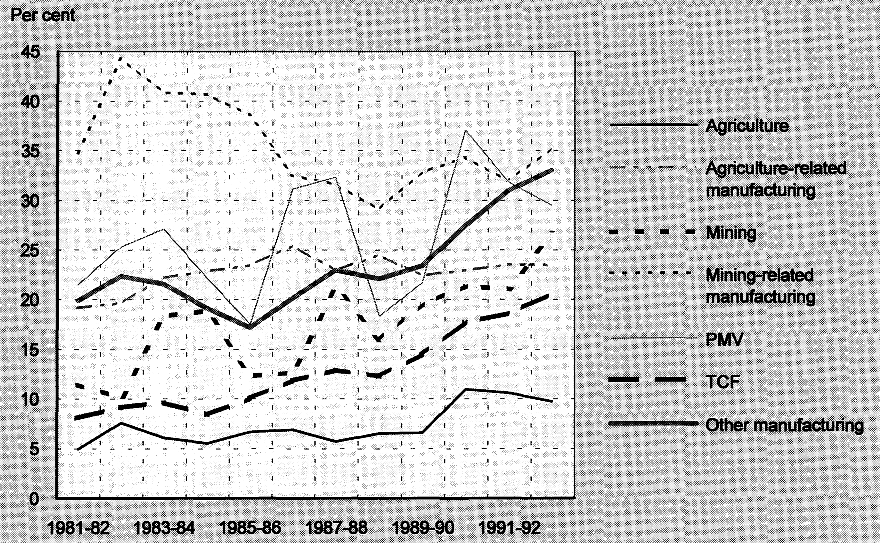
Figure G2 shows that trends in IIT by industry sector differ significantly.

- *Agriculture*: The low and relatively constant IIT index reflects the fact that Australia is almost self-sufficient in agriculture and imports are insignificant in most industries (Figure E4 in Appendix E). A high level of two-way trade exists in only a few small industries, eg plantation fruit, orchard and other fruit, and agriculture nec. Agricultural imports actually declined in 1992–93. Exports are dominated by cereal grains (mainly wheat), but there has also been some impressive growth in exports from some small industries, eg grapes, plantation fruit, rock lobsters, oyster farming and inland fishing.
- *Agriculture-related manufacturing*: The IIT index is higher than for Agriculture because many small industries in this category produce highly differentiated consumer goods and with a high level of two-way trade, eg fruit products, tobacco, confectionary, processed seafood. However, the volume of trade for many of these industries is

low and carries a low weighting overall. This sector is dominated by exports from three large industries: meat, raw sugar and wool scouring. There has also been impressive export growth in a number of smaller industries: butter, cheese, prepared animal and bird foods, wine and brandy, cotton ginning, pulp, paper and paperboard, and leather tanning.

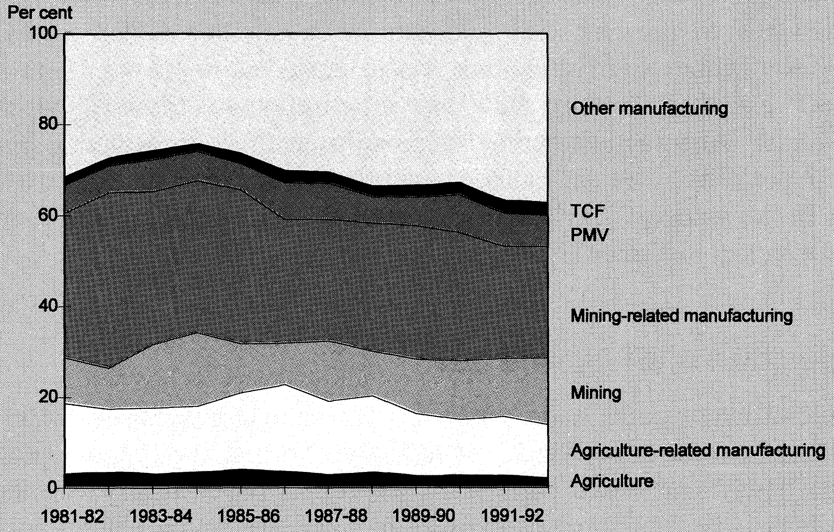
- *Mining*: Mining IIT is relatively low because trade is largely one way and dominated by exports of iron ore and black coal. The one exception is oil and gas where two-way trade is significant.
- *Mining-related manufacturing*: This has the highest IIT of all sectors. This sector contains several industries producing highly differentiated intermediate goods which have a high IIT index and value of two-way trade, eg synthetic resins and rubber, inorganic industrial chemicals, petroleum refining, iron and steel basic products and non-ferrous metal basic products. The average IIT has fallen mainly as the result of significant growth in exports from the alumina and aluminium smelting industries where imports are insignificant.

Figure G2
IIT index by industry sector, 1981–82 to 1992–93



Source: Commission estimates based on ABS data

Figure G3
Annual share of total value of IIT by industry sector, 1981–82 to 1992–93



Source: Commission estimates based on ABS data

- *PMV*: The IIT index for PMV has fluctuated sharply over the period reflecting cyclical factors and the placement of large orders, eg the loss of sales to the NZ market and the sale of the Ford Capri to the US.
- *Other manufacturing*: The average IIT index for Other manufacturing trended upward over the period, mainly as a result of a significant increase in the value of exports from a number of large industries, eg electronic equipment industries (mainly computers and telecommunication equipment), industrial machinery and equipment, pharmaceutical and veterinary products, and fabricated metal products, but also as a result of some rapid growth in exports from smaller industries, eg ships, aircraft, wood and metal working machinery, photographic and optical goods, measuring, professional and scientific equipment.

- *TCF*: The IIT index for TCF has followed the trend for other manufacturing, but from a lower base.

Figure G3 shows the contribution of each sector to the total value of IIT from 1981–82 to 1992–93. A significant proportion of the value of Australia's IIT is accounted for by the resource-based sectors. This share has fallen from 61 per cent to 53 per cent, due largely to a decline in share held by Agriculture and Agriculture-related manufacturing from 19 to 14 per cent. The share held by PMV has not changed significantly, but the share held by Other manufacturing has grown steadily over the period from 31 to 37 per cent. The ten industries accounting for over 65 per cent of growth in the value of IIT in Other manufacturing (including PMV and TCF) are shown in Table G3.

Composition of IIT by end use

A feature of international trade between industrialised nations since World War II has been the growth in IIT in highly differentiated consumer goods and also highly specialised parts and components for assembly. Studies have shown that industrialised nations are becoming increasingly

Table G3
Ten major industries contributing most to the increase in value of intra-industry trade in Other manufacturing, 1981–82 to 1992–1993 (per cent)

	Share of increase
Electronic equipment nec	15.1
Motor vehicles and parts	14.2
Industrial machinery and equipment nec	8.0
Pharmaceutical and veterinary products	6.2
Fabricated metal products nec	5.0
Electrical machinery and equipment nec	4.0
Ships	3.7
Aircraft	3.7
Measuring, professional and scientific equipment nec	2.9
Photographic and optical goods	2.8
Total above	**65.8**

Source: Commission estimates based on ABS data

interdependent at the intermediate level of production. To illustrate the extent of Australia's 'interdependence', the following snapshot of Australia's IIT by end-use was created using the Broader Economic Classification of Trade (BEC).[1] Results are displayed in Table G4.

- *The IIT index for most categories of consumption goods and transport equipment is very low.* Trade in these categories is dominated by imports. Within transport equipment, the only industries recording a high IIT are ships, parts and accessories for aircraft and motor vehicles. Within the consumption goods categories, there are only a few small industries with high IIT, eg nurseries, tobacco products, and paper and stationery.
- *The value of trade is high but the IIT index is relatively low within the industrial supplies group.* Imports and exports of processed goods are roughly equal, but the average IIT for this category is relatively low. This means there is significant specialisation between industries rather than within industries. Within the processed industrial supplies group, industries where trade is dominated by exports include the basic non-ferrous metal group of industries (alumina, aluminium, copper, silver-lead-zinc, nickel and gold). Industries in which imports dominate include: man-made fibres, yarns and broadwoven fabrics, cotton yarns and broadwoven fabric, resawn and dressed timber, chemical fertilisers, organic industrial chemicals nec, plastic products nec, and ceramic tiles and pipes.
- The *IIT index for capital goods is relatively low.* Exports have increased rapidly in recent years but are still low in comparison with imports. The results are dominated by a few large industries, eg electronic equipment, electrical machinery and equipment, industrial machinery and measuring, professional and scientific equipment.

Figure G4 shows the share of the total value of IIT held by each end-use category. The main feature is the small share accounted for by highly differentiated consumer, capital goods and transport equipment categories. Over 60 per cent of the value of IIT is accounted for by food and beverages, industrial supplies and fuels and lubricants. The snapshot

1 The analysis was carried out at the 4 digit level of ASIC within each BEC category. The overall average differs slightly from other analyses because many 4-digit ASICs are split between various BECs, particularly goods used as intermediate industrial supplies and those used as final consumer goods.

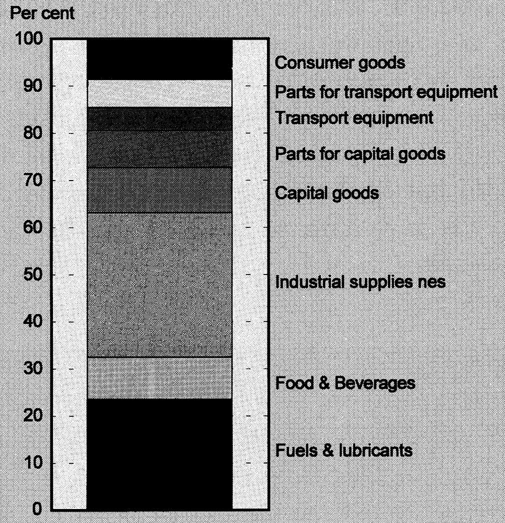
indicates that Australia's pattern of trade is still very much influenced by our natural resources.

Table G4
Snapshot of intra-industry trade by end use, 9 months to March 1993

		Imports ($ million)	*Exports ($ million)*	*IIT (%)*
Food & Beverages				
111	Primary – for industry	128.8	1 951.7	3.8
112	Primary – household consumption	292.3	967.7	39.1
121	Processed – industry	179.8	1 217.9	4.3
122	Processed – household consumption	1 389.7	4 339.5	26.2
Industrial supplies not elsewhere specified				
210	Primary	514.1	8 063.5	7.4
220	Processed	11 690.8	12 164.1	27.5
Fuels and lubricants				
310	Primary	1683.8	6 985.3	38.9
321	Processed – motor spirit	78.0	122.3	77.9
322	Processed – other	1 047.6	1 962.8	65.4
Capital goods (except transport equipment)				
410	Capital goods (except transport equip)	8 026.1	1 167.6	24.5
420	Parts and accessories	4 113.9	963.6	36.8
Transport equipment				
510	Passenger motor cars	2 306.8	349.2	25.9
521	Industrial	2 317.2	230.2	16.4
522	Non– industrial	221.4	58.1	11.5
530	Parts and accessories	2 734.1	704.6	41.0
Consumer goods not elsewhere specified				
610	Durable	2 077.4	204.5	17.9
620	Semi-durable	3 209.0	333.5	18.5
630	Non-durable	2 378.0	500.7	33.2
Goods not elsewhere specified		154.2	1 090.9	13.8
Non merchandise		2 485.2	357.7	25.2
Total		**47 028.2**	**43 735.3**	**26.5**

Source: Commission estimates based on ABS, Foreign Trade on Magnetic Tapes, Imports3 and Exports1

Figure G4
Share of total value of IIT by end use, 1992–93



Source: Commission estimates based on ABS data

Although the industrial supplies group has a low level of IIT overall, there is nevertheless a number of large industries in this group with a high value of two-way trade, indicating a high level of specialisation: iron and steel basic products, inorganic industrial chemicals, pharmaceutical and veterinary products, fabricated metal products, photographic and optical goods, and electric and telephone cable and wire.

Within the fuel and lubricants group, trade is dominated by exports of black coal ($5.6 billion), but there is also a high value of two-way trade in oil and gas and petroleum refining.

Influences on IIT

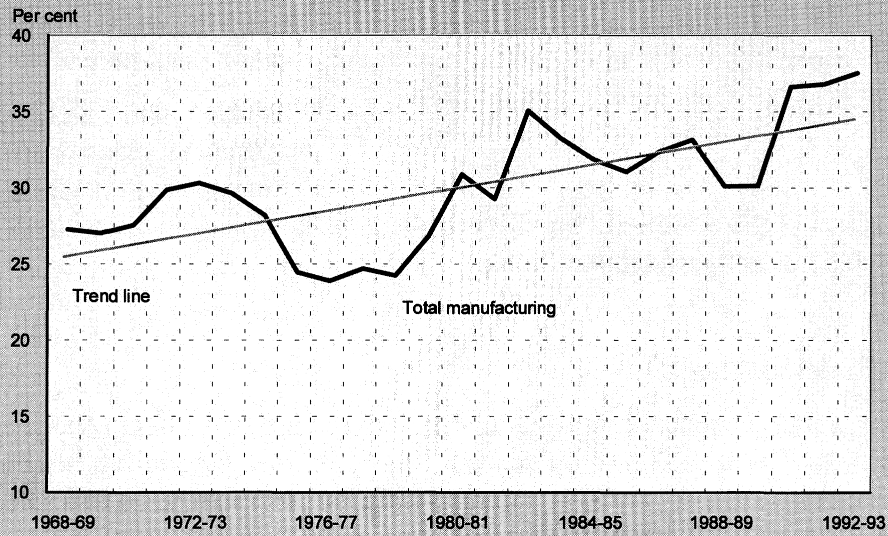
The global economy is currently undergoing dramatic structural change and many factors are likely to influence IIT in the 1990s, both in Australia and overseas. These include: rapid growth in the newly industrialising countries in Asia; spread of trans-national companies and the globalisation of production and consumer tastes; evolving patterns of international specialisation; managed trade overseas; cyclical factors; trade liberalisation and programs that encourage IIT at home.

This appendix has not attempted to disentangle these varied and often conflicting influences. However, the possible influence of a number of factors can be highlighted.

Cyclical factors

An increase in IIT within a particular industry could reflect growing specialisation within that industry or, alternatively, could be due to temporary adjustment or cyclical factors. Historically, Australia's pattern of trade has been noticeably affected by cyclical factors. During recessions, import growth declines in response to weak domestic demand and local producers off-load excess capacity on international markets at below domestic prices. Although IIT has trended upwards since 1968–69, Figure G5 indicates the level of IIT has fluctuated significantly around the trend line. The increases during the downturns of 1982–83 and 1990–91 suggest the influence of cyclical factors.[2]

Figure G5
Annual IIT index for manufacturing[a], 1968–69 to 1992–93



a 3 digit ASIC.
Source: Commission estimates based on ABS data

2 This analysis is conducted at the broader 3-digit level of ASIC and produces a slightly higher average IIT than shown in Figure G1. The pattern is similar.

For most manufacturing industries, imports far outweigh exports. The IIT index will increase either when imports decline and/or exports rise. The decline in the IIT index in the 1970s was due to a substantial increase in imports. In contrast, the growth of IIT during the 1982–83 recession was due to a fall in imports. As noted before, the increase in IIT was transient. The sharp rise in IIT during the 1990–1992 recession was due to a fall in imports combined with a rise in exports (Appendix F). The extent to which the growth in IIT since 1989–90 has been due to cyclical or structural factors will become more evident with time. However, in 1992–93, IIT declined in 30 per cent of industries in Other manufacturing.

Trade liberalisation

Trade liberalisation will normally lead to greater international specialisation within and between industries in the production of goods and services. Trade liberalisation reduces barriers to importing goods and services that a country is normally not as good at producing and removes impediments to exporting goods and services that a country has greater advantage in producing. While the value of IIT could be expected to increase in some industries as a result, the overall trend in IIT will depend on whether the major adjustments following trade liberalisation are inter-industry (resources moving out of some industries and into others) or intra-industry (resources moving between activities within the same industry).

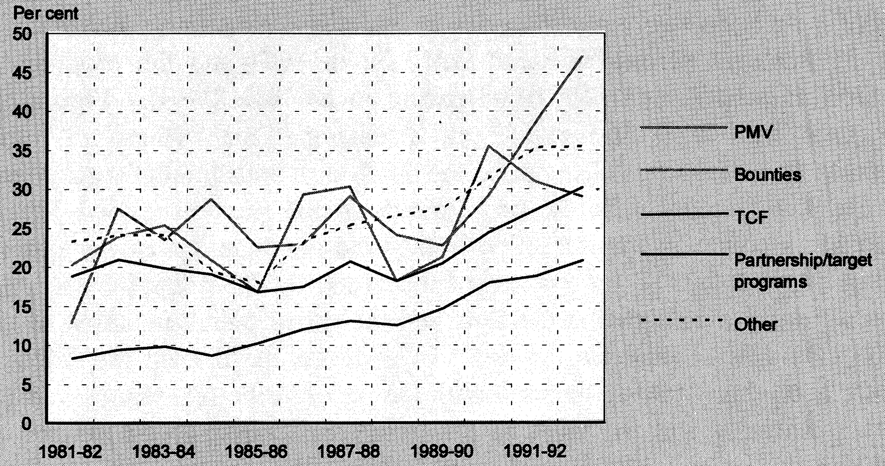
There have been two main episodes in trade liberalisation in Australia — the 25 per cent across-the-board tariff cut in 1973 and the program of phased reductions in tariffs commencing in the late 1980s. Figure G5 suggests that it is impossible to disentangle the effects of trade liberalisation. In part, this is due to the short-term and simultaneous effects of cyclical factors. The 25 per cent tariff cut was associated with a dramatic increase in imports of manufactured goods and a corresponding fall in the average IIT for the rest of the decade. The domestic economy was seriously overheated at the time and the stated policy intention of the tariff cuts was to increase imports. In contrast, the phased reduction in tariffs in the late 1980s coincided with the onset of the recession. Imports fell significantly and the level of IIT for manufactured goods jumped as local producers switched sales abroad.

The across-the-board tariff cut may have had some long-term effect, contributing to the general increase in IIT. But that is impossible to attribute necessarily from casual observation of the figure. Similarly, insufficient time has elapsed for the longer-term effects of the current program of trade liberalisation to show up definitively.

Changes in export assistance

During the 1980s, the Commonwealth Government introduced a number of industry-specific programs designed specifically to improve international competitiveness and to facilitate IIT in particular manufacturing industries, eg information and communication industries, motor vehicles, aerospace and pharmaceuticals. These industries are dominated by transnational companies and production is becoming increasingly globalised. The stated rationale for these programs is that Australia's future participation in these industries will depend on our ability to link into these global networks. The programs take various forms and are described in Appendix O, together with other industry-specific programs which are designed

Figure G6
Annual IIT index by industry program, 1981–82 to 1992–93



Source: Commission estimates based on ABS data

specifically to assist exports. To help identify and compare the influence of these industry-specific programs on IIT trends, manufacturing industries have been grouped according to the type of program.

- *Industries subject to export facilitation schemes (EFSs).* EFSs are designed specifically to facilitate IIT. The export facilitation scheme for PMV was introduced in 1982 and expanded in 1991. The import credit scheme for TCF was introduced in 1991. Since 1989, TCF industries have also received structural assistance designed to improve international competitiveness. Most of this assistance takes the form of grants for capital investment.
- *Industries subject to partnership/offsets/target programs.* This category includes programs with multiple objectives such as Factor f. The partnership schemes were introduced in 1987, while the Factor f scheme was introduced in 1987 and expanded in 1992. The common characteristic of these programs is the specification of targets in relation to exports, R&D and local product development. Some firms within these industries are also recipients of the computer bounty.
- *Industries receiving direct bounties/grants designed to improve their international competitiveness.* Examples are shipbuilding (longstanding bounty), photographic and optical goods (bounty assistance from 1989–90 to 1992–93), wood and metal working machinery (longstanding bounty).
- *No industry-specific program.* This group includes industries that receive minor amounts of bounty assistance and generally-available marketing and financial export assistance through AUSTRADE (see Appendix O).

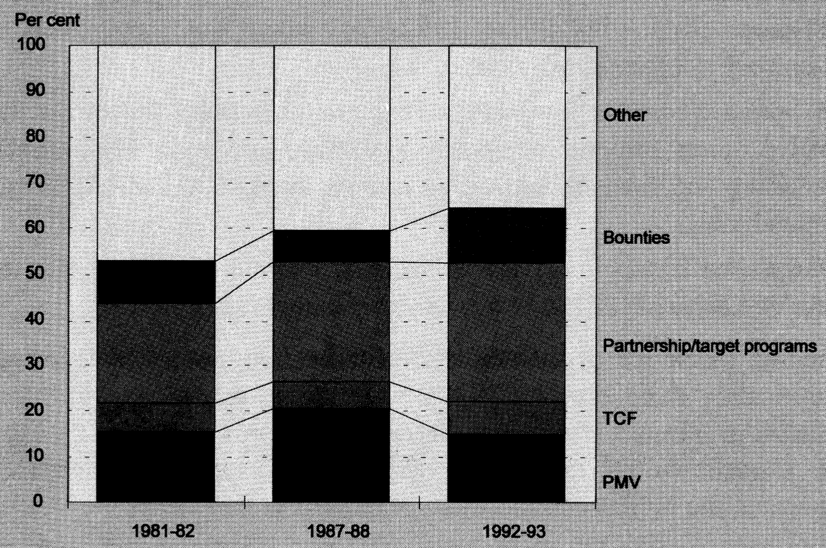
Figure G6 shows trends in IIT for industries classified by type of industry program. The level of IIT has increased in all categories.

- The IIT index for partnership/offsets/target programs has increased significantly since the late 1980s, with strong export growth. It is difficult to measure the cost of the assistance provided or to assess if the exports would have occurred in the absence of assistance. However, the increase in the value of exports is impressive.
- The average IIT for Other (no industry-specific assistance) has trended upwards in similar fashion since the mid-1980s, although it levelled off during 1992–93. Nevertheless, some industries within

this group have recorded a significant and sustained increase in IIT, eg pesticides, chemical products nec, and various industries in the fabricated metal and industrial machinery and equipment group of industries.

- The IIT index for TCF continued to trend upwards in 1992–93, reflecting an improvement in international competitiveness in several industries in receipt of capital grants and, perhaps, the initial impact of the import credit scheme.
- The growth in IIT in industries receiving direct bounties has been more marked in the 1990s. With the exception of shipbuilding, the size of the bounty assistance has been small in relation to the growth in exports.
- PMV has shown the most erratic change in the IIT index. Although the average IIT has continued to rise for most categories since the onset of the recession, the IIT for PMV has declined since 1990–91 despite a significant widening of the provisions of the export

Figure G7
Share of value of IIT by industry program, 1981–82, 1987–88 and 1992–93



Source: Commission estimates based on ABS data

facilitation scheme in 1991 and the significant assistance provided by this scheme as a proportion of the value of exports (Appendix O).

Figure G7 shows the change in share of the value of IIT accounted for by each category between 1981–82, 1987–88 and 1992–93. The main feature is the increase in share held by industries subject to bounties and partnership/offsets/target programs reflecting the very large increase in the value of exports for some industries in recent years; in particular pharmaceuticals and electronic equipment (computer and telecommunication equipment), ships and photographic and optical equipment.

Although the share held by Other (no industry-specific assistance) has declined steadily over the period, there has been a significant increase in the value of IIT overall and in a few industries. For example, the industries downstream from the steel and aluminium industries — the fabricated metal group of industries and industrial machinery and equipment industries — are emerging as major export activities.

Conclusions

Although Australia's average IIT has trended upwards in recent years, it is still very low in comparison with other industrialised nations. Much of this two-way trade is determined by Australia's natural endowments — for example, we import heavy crude and export light crude oil. Australia still has a relatively low level of IIT in highly differentiated consumer goods and specialised capital goods and parts.

Because of the advantages enjoyed by Australia's 'traditional' exports in mining and agriculture, those sectors will continue to run significant trade surpluses. At the same time, and partly for that reason, it seems that we may continue to run a considerable trade deficit in manufactures. Accordingly, the proportion of Australia's trade which is *intra*-industry is likely to be significantly lower than the level of *intra*-industry trade enjoyed by industrialised nations which do not have our resource advantages and consequently do not have the same opportunity to engage in beneficial *inter*-industry trade.

Trade liberalisation can be expected to lead to specialisation both within and between industries. This study has shown that the value of *intra*- and *inter*-industry trade is currently growing strongly in Australia, particularly in a few large industries. The growth in the value of IIT in non-resource based manufacturing appears to be due to a mixture of influences including fluctuations in macroeconomic activity, trade liberalisation, continuing strength in a number of basic industries such as heavy industrial machinery, and government programs designed to facilitate and assist exports in manufacturing industries running significant trade deficits.

APPENDIX H
STRUCTURE OF LABOUR MARKETS

The high rate of unemployment continues to be the focus of particular community concern. Both unemployment and long-term unemployment appear to ratchet up with each period of high unemployment, and only subside with difficulty. The long-term unemployed are typically older, male and less well educated. Unemployment is most persistent amongst those returning to the workforce or looking for their first job. However, workers formerly attached to some industries (construction and manufacturing) and occupations (labourers and plant and machinery operators) also experience greater re-employment difficulties. The move to enterprise bargaining and the provision of education and training programs are two means of facilitating adjustment in labour markets.

Labour markets are a key area in which the performance of the economy is judged. It has also been widely recognised that labour markets need to be more flexible to respond to structural changes and contribute to productivity growth. Labour markets are thus a focus of the reform effort. This appendix reviews recent developments in labour markets and their structure.

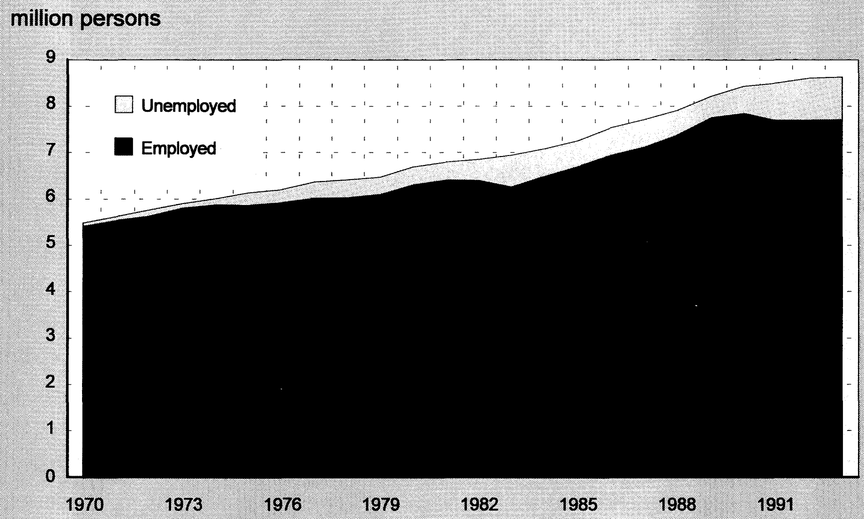
Aggregate trends

The Commission's 1991–92 Annual Report focussed on the problem of persistent high unemployment.

The onset of the recession in 1990 led to a significant increase in unemployment. While the number of job seekers has increased by 330 000 since then, there are now around 125 000 fewer jobs than in 1990.[1]

1 Employment was 7 809 100 persons in February 1990, and 7 684 900 persons in August 1993 (ABS Cat no. 6202.0 and 6203.0).

Figure H1
Labour force, employment and unemployment, 1970 to 1993[a]



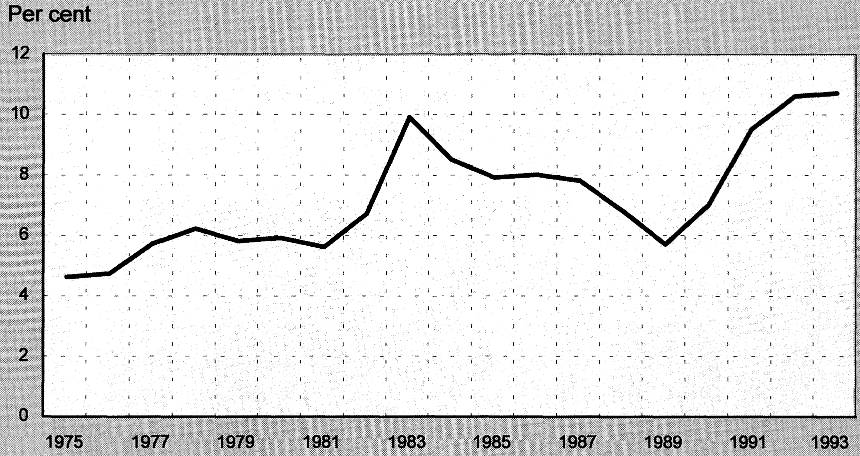
a August 1993 figures are preliminary.
Source: ABS Cat no. 6101.0, 6203.0

Table H1
Annual growth in the labour force and employment[a], 1975 to 1993[b] (per cent)

	1975–82	*1983–89*	*1990–93*
Labour force	1.6	4.8	0.8
full-time	1.1	3.5	-0.01
part-time	4.5	11.0	3.6
Employment	1.3	3.6	-0.6
full-time	0.7	2.9	-1.7
part-time	4.7	6.8	3.2

a Average annual rates of growth.
b August figures used in all years. 1993 figures are preliminary.
Source: Commission estimates based on ABS Cat no. 6101.0, 6203.0

Figure H2
Australian unemployment rate, 1975 to 1993[a]



a 1993 figure is preliminary.
Source: ABS Cat no. 6101.0, 6203.0

The attention on the current downturn has, however, obscured the fact that high unemployment has persisted for a long time. The gap between the number of job seekers and positions available has grown steadily since the 1970s (Figure H1). There was strong growth in employment during the 1980s (Table H1). But there was also strong growth in the labour force during this period. Consequently, there were already nearly 600 000 unemployed before the recent recession.

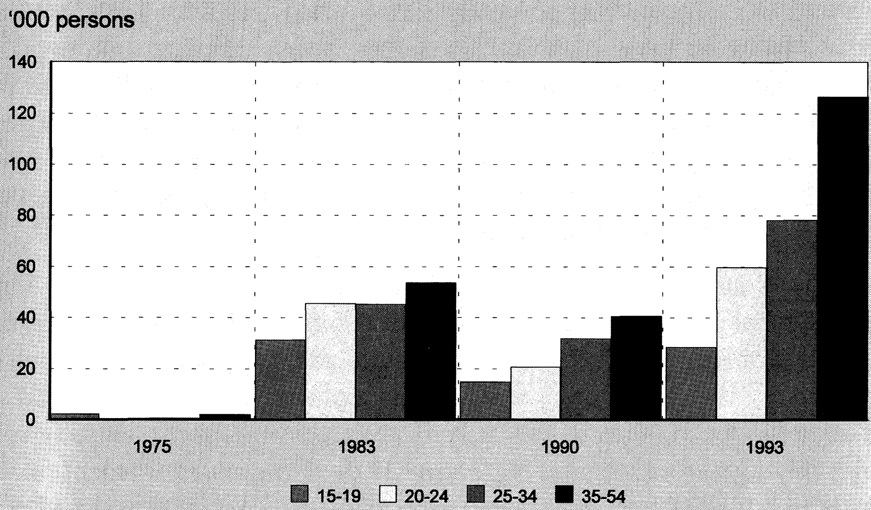
Thus, there are two distinct factors responsible for the current high unemployment — a cyclical downturn compounding an underlying structural problem. The underlying structural problem mentioned above is evidenced by the 'ratcheting' effect in unemployment. After a period of high unemployment, such as the early 1980s recession, unemployment fell, but not to the pre-recession levels (Figure H2). If the unemployment rate is adjusted for hidden unemployment, there is also evidence that the under-employment rate passed 10 per cent in 1983 and has not dropped below that level since then (Junankar and Kapuscinski 1992).

In addition, long-term unemployment has become more prominent. The ratio of long-term to total unemployment grew rapidly from 1974 to 1980, before falling briefly from 1980 to 1982 (Figure H6).[2] It then climbed rapidly again until 1984, and declined slowly until the recent recession. In absolute and relative terms, long-term unemployment has remained well above the levels of the 1970s. Long-term unemployed are increasingly male, older and less well educated (Box H1).

Box H1
Profiles of the unemployed

The age profile of the long-term unemployed has changed over time. People in the 35-54 year age bracket now make up more of the long-term unemployed than in 1983, while teenagers make up less (Figure H3). Women also make up a slightly lower proportion of the long-term unemployed than they used to (Figure H4), while unemployment is also higher amongst the less well-educated (Figure H5).

Figure H3
Long-term unemployment by age, various years 1975 to 1993[a]

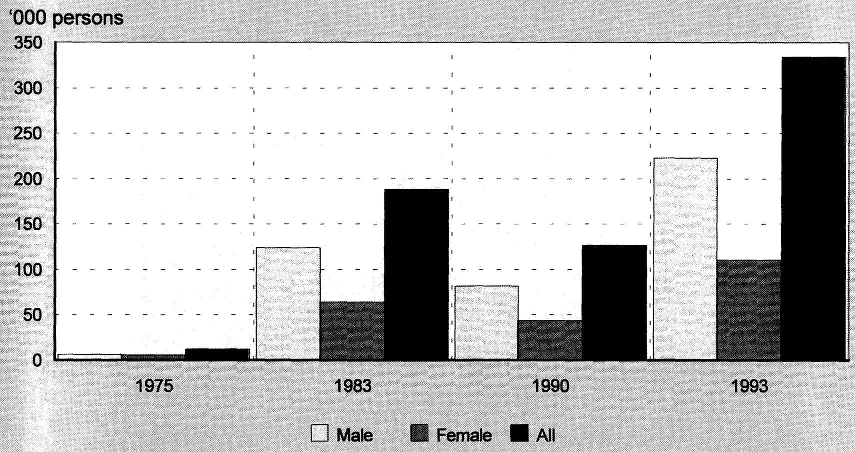


a 1993 figures are for July. Other years are for August.
Source: ABS Cat no. 6203.0

2 ABS defines the long-term unemployed as those unemployed for 52 weeks or more.

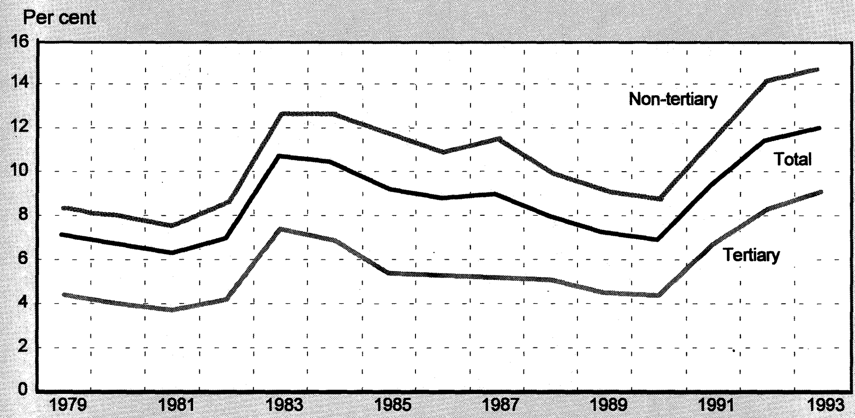
Box H1 (continued)

Figure H4
Long-term unemployed by sex, various years 1975 to 1993[a]



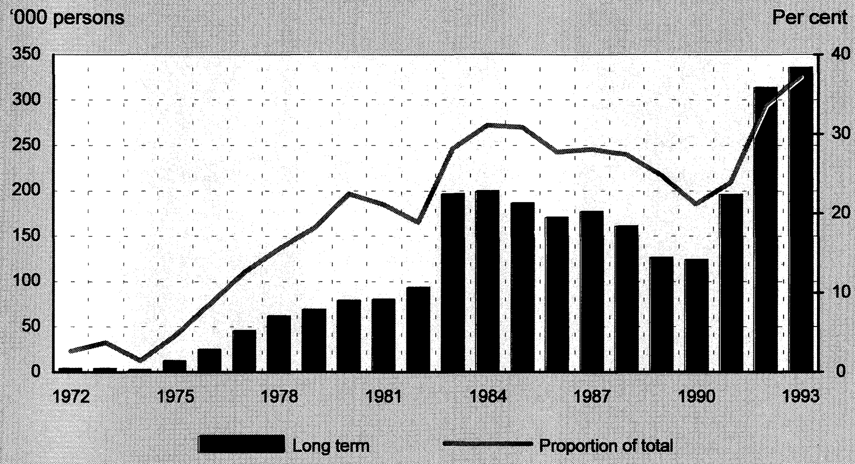
a 1993 figures are for July. Other years are for August.
Source: ABS Cat no. 6101.0, 6203.0

Figure H5
Unemployment by educational attainment[a], 1979 to 1993[b]



a Measured as a proportion of non-tertiary educated, tertiary educated and total labour force.
b August figures.
Source: ABS Cat no. 6235.0

Figure H6
Long-term unemployment numbers and as a proportion of total unemployment[a], 1972 to 1993



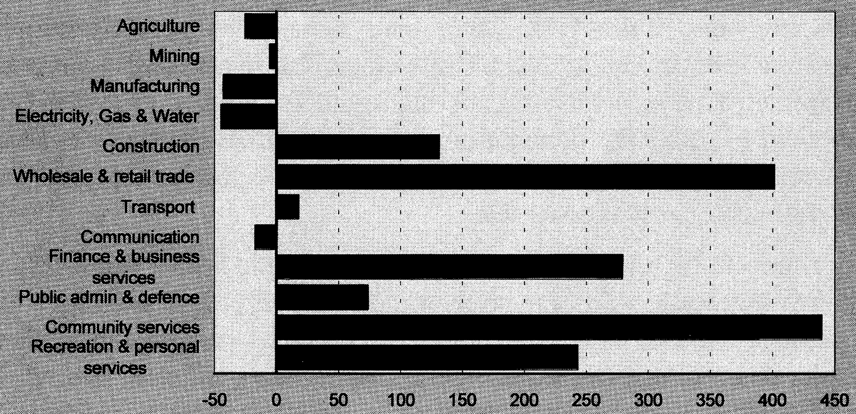
a 1993 figure are for July. Other years are for August.
Source: ABS Cat no. 6101.0, 6203.0

Table H2
Full-time and part-time employment, 1983 to 1993[a]

	Employment 1993		*Annual average growth rates*
	million persons	*percentage of total*	*1983–1993*
Full-time			
male	4.0	51.8	0.8
female	1.9	24.4	2.3
Part-time			
male	0.5	5.9	6.5
female	1.4	18.0	5.0
Total	**7.7**	**100.0**	**2.1**

a 1993 figures are preliminary and for August.
Source: ABS Cat no. 6203.0

Figure H7
Employment growth by industry, 1983 to 1993[a]
('000 persons)



a Calculated from May 1983 to May 1993.
Source: ABS Cat no. 6101.0, 6203.0

Another broad feature of the structure of labour markets has been the growing importance of part-time employment. Growth in part-time employment accelerated during the 1980s and has still managed to outpace full-time employment in the 1990s (Table H1).

Women provided most of the growth in part-time employment. Although their annual average rate of growth is slightly lower than that of males, their growth has been from a larger base (Table H2).

Changes in employment by industry

The industry composition of employment has changed markedly over the last decade. While employment in the economy generally grew by 23 per cent from May 1983 to May 1993, employment in primary industries fell by 6 per cent. Agriculture's share in total employment fell from 7 to 5 per cent over0 the period. Manufacturing employment fell by 4 per cent and its share in the total from 18 per cent to 13 per cent. In contrast, services employment increased by 33 per cent or from 73 to 79 per cent of total employment. Figure H7 shows the extent to which employment in industries within the services sector has been growing ahead of employment in other sectors.

However, Figure H7 masks the volatility of employment growth in different sectors over time (Table H3). The mining industry has recently exhibited marked declines in employment. Manufacturing has shown a long-term employment decline, with even the high-growth period during the 1980s insufficient to offset the dominant trend. Even within the services sector, which has exhibited high overall employment increases, there has been wide variation between industries.

Labour mobility is an important indicator of how the labour force, and the economy in general, adjusts to structural change. If people can move from one place of work or industry to another easily, then unemployment should be easier to avoid and overcome. On the other hand, if labour is relatively inflexible within particular industries and occupations, then unemployment,

Table H3
Annual change in employment by industry[a], various periods 1975 to 1993[b] (per cent)

	1975–82	*1983–89*	*1990–93*	*1975–93*
Agriculture, forestry, fishing & hunting	0.4	-0.2	-2.8	-0.1
Mining	2.1	1.9	-1.6	0.8
Manufacturing	-0.8	1.5	-2.6	-0.7
Electricity, gas & water	2.9	-3.0	-2.2	-0.4
Construction	-1.3	7.6	-2.0	0.4
Wholesale & retail trade	1.1	4.7	-0.8	2.0
Transport & storage	1.8	1.8	-2.3	0.7
Communication	0.5	-0.1	-7.1	-0.4
Finance, property & business services	4.5	7.3	-1.9	3.9
Public administration and defence	0.5	0.5	0.9	1.7
Community services	4.2	3.9	1.1	3.5
Recreational, personal & other services	1.2	6.0	4.3	3.0
Total	**1.3**	**3.6**	**-0.5**	**1.6**

a Average annual rates of growth.
b August figures used in all years except 1993, for which May figures are used.
Source: Calculated from ABS Cat no. 6101.0, 6203.0

and in particular long-term unemployment, will be more prevalent.

One measure of labour mobility is the number of people who have changed employer and/or locality in the past year. By this measure, labour mobility has increased greatly in the past 10 years, although there has been a decline more recently, which is to be expected in a period of high unemployment (Table H4).

Labour mobility is lowest in the agriculture and manufacturing industries (Table H5). However, a greater proportion of people from these industries who did change jobs went to completely different industries. This undoubtedly reflects the relatively fewer employment opportunities in agriculture and manufacturing.

People returning to the workforce are by far the largest group of long-term unemployed, at 60 per cent of total long-term unemployment. These former workers are defined to be those who have previously worked full-time for two weeks or more, but not in the past two years. First jobseekers represent 13 per cent of long-term unemployment. The remaining 27 per cent are those who have maintained attachment to the workforce and may be traced back to particular industries.

Amongst those who can be traced back to industries, several industries are more common — Manufacturing, Wholesale and retail trade, and Construction (Table H6). All of these have been affected by cyclical pressures (Appendix D). Manufacturing may also have been affected by structural factors (Appendix F).

The sector that stands out as currently contributing to long-term unemployment is Manufacturing, which accounted for 14.5 per cent of employment in July 1993, but was the source of over 26 per cent of the industry affiliated long-term unemployment (Table H7).[3] The Construction industry also appears to have produced a disproportionately large number

3 Table H7 shows three things. The first column shows the percentage of the long-term unemployed whose last job was in a particular industry. For example, 19.6 per cent of long-term unemployed with an industry affiliation (or 6 per cent of total long-term unemployed) were last employed in Wholesale and retail trade. The second column shows the percentage of the unemployed whose last job was in a particular industry. For example, 8.2 per cent of unemployed persons were last employed in Community service jobs. The final column shows the shares of total employment in each industry.

Table H4
Labour mobility[a], various years 1983 to 1992 (per cent)

	1983	*1989*	*1990*	*1992*
Changed employer/business or locality	14.9	19.7	22.0	19.7
changed employer/business	11.4	14.8	18.6	16.6
changed locality but not employer/business	3.4	4.8	3.4	3.1
Did not change employer/business or locality	85.1	80.3	78.0	80.3
Total	**100.0**	**100.0**	**100.0**	**100.0**

a Covers the period from February the previous year to March of the nominated year.
Source: ABS Cat no. 6209.0

Table H5
Labour mobility by industry, 1992

		Changed job		
Industry	*Workforce*	*number*	*within the same industry*	*to a different industry*
	('000)	*('000) (%)[a]*	*(%)*	*(%)*
Agriculture	364.4	25.2 (7)	47	53
Manufacturing	1039.4	108.0 (10)	56	44
Construction	482.2	67.8 (14)	66	34
Wholesale & retail trade	1416.1	204.9 (14)	63	37
Transport & storage	363.8	43.2 (12)	65	35
Finance, prop. & bus. services	814.2	124.0 (15)	72	28
Public admin. & defence	352.2	40.4 (11)	59	41
Community services	1336.0	146.0 (11)	79	21
Recreation & pers. services	528.2	80.7 (15)	62	38
Other	330.4	34.9 (11)	60	40
Total	**7026.9**	**875.0 (12)**	**66**	**34**

a The numbers in brackets represent the percentage of the total workforce employed in that industry who changed jobs.
Source: ABS Cat no. 6209.0

Table H6
Long-term unemployed by industry of last full-time job[a], 1988 to 1993[b] ('000 persons)

	1988	*1989*	*1990*	*1991*	*1992*	*1993*
Agriculture	2.5	2.3	1.8	3.3	5.5	4.2
Manufacturing	7.7	5.3	9.6	23.9	31.2	21.7
Construction	3.1	1.9	5.8	12.9	13.8	12.6
Wholesale and retail trade	9.6	6.4	4.9	18.1	23.8	20.0
Transport and storage	2.1	1.6	1.7	4.9	6.0	5.7
Finance, prop. & bus. services	1.6	1.0	1.3	3.9	10.0	6.9
Public admin. & defence	2.4	0.6	2.6	3.1	3.5	2.6
Community services	3.6	2.4	2.9	4.6	7.9	6.0
Recreation & pers. services	2.4	2.7	3.2	5.9	8.7	9.7
Other	2.4	0.8	0.3	2.2	3.2	2.1

a Figures will not reconcile with those in Figure H6 because first-job seekers and former workers are not included.
b 1993 figures are for July. Other years are for August.
Source: ABS Cat no. 6101.0, 6203.0

Table H7
Long-term and total unemployment by industry affiliation, May 1993 (per cent)

	Long-term unemployed[a]	*Unemployed[b]*	*Employed full-time workers*
Agriculture	7.5	6.5	5.1
Manufacturing	26.1	20.9	14.6
Construction	11.0	13.1	7.2
Wholesale and retail trade	19.6	21.8	21.7
Transport and storage	7.4	4.8	4.9
Finance, prop. & bus. services	5.9	6.8	11.2
Public admin. & defence	2.6	3.8	4.9
Community services	7.1	8.2	19.4
Recreation & pers. services	9.0	10.2	8.4
Other	4.1	4.1	2.5
Total	**100.0**	**100.0**	**100.0**

a Calculated as a percentage of total long-term unemployed with an industry affiliation.
b Calculated as a percentage of total unemployed with an industry affiliation.
Source: ABS Cat no. 6101.0, 6203.0

of long-term unemployed, accounting for only 7 per cent of employment but 11 per cent of the industry affiliated long-term unemployment. On the other hand, the extent of long-term unemployment from Wholesale and retail trade does not appear to be out of line with its numbers employed or unemployed.

Employment by occupation

The demand for particular occupations has also changed. Notable has been the growth in the services occupations, such as sales, professions and para-professions, and the fall or slow growth in trades and other blue-collar occupations (Figure H8).

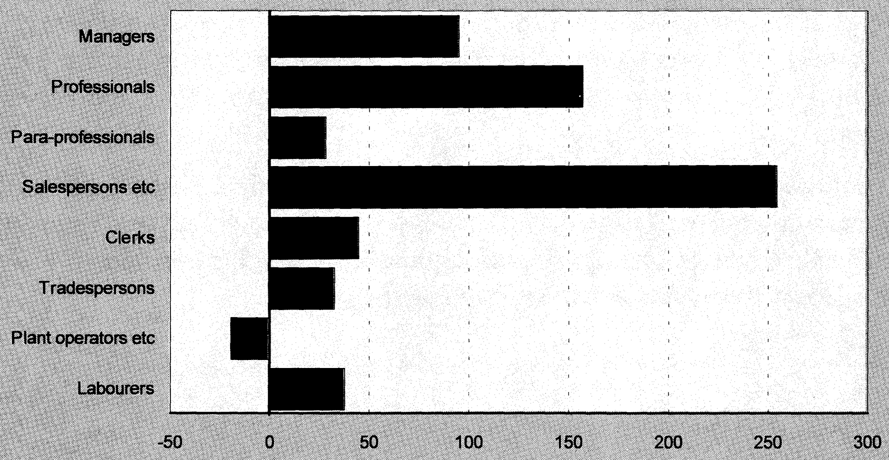
In the latter part of the 1980s, the highest occupational employment growth was in the white collar area — particularly professionals and salespersons (Table H8). In the 1990s, employment of managers, professionals, salespersons and personal services workers continued to grow, but at a slower rate than previously. Most other categories exhibited a general decline.

Table H8
Average annual employment growth rates by occupation, 1986 to 1993[a] (per cent)

	1986–89	*1990–93*
Managers	2.6	0.9
Professionals	5.0	0.7
Para-professionals	3.8	-1.7
Tradespersons	2.3	-1.6
Clerks	3.3	-1.2
Salespersons & personal services workers	5.9	1.6
Plant and machine operators, and drivers	3.4	-2.2
Labourers & related workers	4.0	-1.2
Total	**3.8**	**-0.5**

a 1993 figures are for May. All other years are for August.
Source: ABS Cat no. 6101.0, 6203.0

Figure H8
Change in employment numbers by occupation, 1987 to 1993[a] ('000 persons)



a 1993 figures are for May.
Source: ABS Cat no. 6101.0, 6203.0

Labour mobility by occupation (Table H9) exhibits less variation than labour mobility by industry. However, mobility does vary between occupations. With the exception of Managers and administrators, a higher proportion of people in the higher-skilled occupations stayed in the same occupations when they changed job. For example, 84 per cent of Professionals who changed jobs moved to other professional jobs. On the other hand, in lower-skilled occupations, although the majority who changed jobs stayed within the same industry, a greater proportion moved to different occupations. However, most moved to an occupation requiring similar, rather than higher, skill levels (ABS Cat no. 6209.0).

Table H10 shows long-term unemployment by occupation, former workers and those looking for their first job. While labourers make up only slightly more of the labour force than professionals, they make up a disproportionately large number of the long-term unemployed with occupational affiliation (Table H10). There were over five times as many long-term unemployed whose last occupation was labourer in July 1993 as there were ex-professionals. The other categories generally associated with blue-collar labour, such as Plant and machinery operators and drivers and Tradespersons, also show a disproportionate share of long-term unemployment.

White collar workers are experiencing fewer adjustment problems, as evidenced by lower unemployment and long-term unemployment ratios (Table H11). This is undoubtedly due to the expansion of the services sector.

In addition, the last occupation of a relatively high proportion of the (workforce-attached) long-term unemployed — such as tradespersons, plant and machine operators, and labourers — overlap considerably with the manufacturing and construction industries.

Table H9
Labour mobility by occupation, 1992

		Changed job	within same	
Occupation	*Workforce*	*number*	*occupation*	*to different occupation*
	('000)	*('000) (%)*[a]	*(%)*	*(%)*
Managers and administrators	810.7	80.2 (10)	64	36
Professionals	964.3	120.3 (13)	84	16
Para-professionals	438.3	56.1 (13)	77	23
Tradespersons	1081.7	138.5 (13)	78	22
Clerks	1223.2	150.0 (12)	73	27
Salespersons & personal services	1013.5	165.7 (16)	65	35
Plant & machine operators & drivers	515.9	52.4 (10)	65	35
Labourers & related workers	979.4	111.9 (11)	61	39
Total	**7026.9**	**875.0 (12)**	**71**	**29**

a The numbers in brackets represent the percentage of the total workforce employed in that occupation.
Source: ABS Cat no. 6209.0

Table H10
Long-term unemployed by occupation of last full-time job, 1988 to 1993[a] ('000 persons)

	1988	*1989*	*1990*	*1991*	*1992*	*1993*
Managers and administrators	1.0	1.6	0.4	3.8	5.0	4.7
Professionals	1.0	1.5	0.5	1.2	6.4	4.8
Para-professionals	2.0	0.5	0.8	2.0	3.1	2.3
Tradespersons	6.0	3.5	4.2	14.3	23.1	23.1
Clerks	2.1	2.6	3.2	6.3	9.0	8.2
Sales & personal services workers	5.5	2.4	4.6	10.7	14.0	12.3
Plant & machine operators & drivers	4.0	2.3	4.9	13.4	13.3	10.9
Labourers & related workers	15.7	10.7	15.4	31.2	39.6	25.3
Sub-total	**37.3**	**25.4**	**34.0**	**82.9**	**113.5**	**91.6**
Other:						
looking for first job	20.3	15.5	16.5	23.3	41.4	43.0
former workers	95.8	67.8	76.5	94.8	158.2	200.0
Total	**153.4**	**108.4**	**127.0**	**201.0**	**313.1**	**334.6**

a 1993 figures are for July. Other years are for August.
Source: ABS Cat no. 6101.0, 6203.0

Employment by firm size

In its last comprehensive survey of small business in 1989–90, the ABS found that small businesses represent around 96 per cent of all businesses in Australia, and employ around 48 per cent of all employees (ABS Cat no. 1321.0).[4]

The Bureau of Industry Economics (BIE 1993a) noted that, in September 1992, small business employment was actually greater than its pre-

4 Small businesses are defined as manufacturing establishments of less than 100 employees; non-manufacturing establishments of less than 20 employees; and agricultural establishments with an estimated value of agricultural operations of less than $400 000.

Table H11
Long-term and total unemployment by occupation of affiliation[a], May 1993

	Long-term unemployed	*Unemployed*	*Employed people*
Managers & administrators	2.9	4.9	11.5
Professionals	5.3	5.8	13.4
Para-professionals	3.7	3.6	5.8
Tradespersons	20.1	21.0	15.0
Clerks	8.8	10.3	16.6
Sales & personal services workers	12.8	14.1	15.8
Plant & machine operators & drivers	12.8	9.5	7.0
Labourers & related workers	33.6	30.8	14.9
Total	**100**	**100**	**100**

a Excludes first job seekers and former workers returning to the workforce.
Source: ABS Cat no. 6203.0

Table H12
Change in small business employment by industry, 1989 to 1992[a]

Industry	*Change over the period*			
	1989 to 1991		*1991 to 1992*	
	(%)	*('000)*	*(%)*	*('000)*
Mining	-31.1	-2.8	3.2	0.2
Manufacturing	-7.2	-35.2	-0.2	-0.7
Construction	-10.9	-39.9	9.5	31.0
Wholesale & retail trade	-3.5	-26.6	5.3	39.3
Transport & storage	-14.1	-19.0	15.1	17.4
Finance, prop. & bus. services	-2.6	-9.3	16.2	55.8
Community services	1.5	2.9	20.3	41.0
Recreation & pers. services	-2.8	-8.4	6.4	18.7
Total	**-5.3**	**-138.3**	**8.2**	**203.4**

a Measured from September quarter 1989 to March quarter 1991; and from March quarter 1991 to September quarter 1992.
Source: BIE (1993a)

recession peak and is expected to continue growing, while larger enterprises continued to shed staff.

Table H12 shows that, in aggregate, small business is actually increasing employment, at a time when total employment has been falling. In fact, the small business sections of the Community services, Finance property and business services and Transport and storage industries have increased employment substantially.

Facilitating change in the structure of labour markets

There are many factors that influence the structure of labour markets. Two are briefly examined here — the move to enterprise bargaining, and the provision of education and training programs.

Enterprise bargaining agreements

The need to improve labour market flexibility has been widely recognised; although some argue that the scope for flexibility in the current industrial relations system has not been fully exploited. Enterprise bargaining is being introduced into the industrial relations system.[5] It has the potential to influence not only the productivity, pay and conditions in the workplace, but also the level and industry and occupational structure of employment, the development of skills, and so on.

Processes of enterprise bargaining

Several systems have been developed under different jurisdictions. Under the Commonwealth system there are currently two commonly used ways to secure a formal enterprise bargaining agreement (EBA) and both come under the *Industrial Relations Act 1988*.

- The first is by use of consent agreements under s.111(1)(b). These agreements must be ratified by the Australian Industrial Relations Commission (AIRC), which must take into account the 'public interest test' of s.90. The 1991 National Wage Case decision set out criteria

5 Flexibility in the award system has also been introduced through 'facilitative provisions' and 'enterprise flexibility clauses'.

under the Enterprise Bargaining Principle which these agreements must satisfy;

- The second is use of certified agreements under Division 3A — introduced in July 1992 (replacing s.115 certified agreements). These do not require the AIRC to apply the public interest test, except in the case of multi-employer agreements.

While it is possible for consent agreements to be made without the involvement of unions, the practical extent of consent agreements without the formal participation of unions is quite low. Division 3A agreements require union involvement. The majority of EBAs have been registered under Division 3A since its introduction (see below).

All States also have their own enterprise bargaining legislation. Victoria has the *Employee Relations Act 1992*, NSW has the *Industrial Relations Act 1991*, and in Western Australia the Workplace Agreements Bill is presently before Parliament. In South Australia, the guidelines for EBAs were set out under the State Wage Case of 1992. Tasmania has the *Enterprise Agreements and Workplace Freedom Act 1993*.

Queensland has three types of enterprise agreements. The first is similar to the Commonwealth's Division 3A agreements and requires the involvement of unions. The second, the traditional type of enterprise agreement, is via an Industrial Agreement, which also requires union involvement. The third type of agreement is one under s.10(1) of the *Industrial Relations Act 1990* and does not require union involvement. This final type of agreement is rarely used.

Since the Northern Territory and Australian Capital Territory have no constitutional power to make industrial relation laws, any EBAs in these jurisdictions are covered by the Commonwealth legislation.

Extent of enterprise bargaining [6]

The great majority of EBAs, in terms of both numbers of agreements and employees covered, are under the Commonwealth system. Under Commonwealth legislation, 1 135 agreements were registered by

6 Information provided by the Commonwealth Department of Industrial Relations, Victorian Employee Relations Commission, SA Industrial Court and Commission, WA Industrial Relations Commission, and Office of the Enterprise Commissioner, Tasmania.

September 1993, covering an estimated 763 000 employees. To date, around half of these agreements have been consent awards or certified agreements under the Enterprise Bargaining Principle, with the other half being Division 3A (s.134) certified agreements. If agreements processed under the metals workplace bargaining framework agreement are excluded, certified agreements represent approximately 80 per cent of agreements processed since the introduction of Division 3A (DIR 1993). Approximately 62 percent of employees covered under EBAs are in the public sector and 38 per cent in the private sector.

Under the NSW system, enterprise agreements covering 7209 employees were registered in the first twelve months of operation (Rowe 1993). Most were for small enterprises (though the absolute number of employees was higher for larger business groups) and most (83 per cent) were for only partial regulation of conditions (ie they were additions to, rather than replacements of, awards).

In Victoria, only 119 collective employment agreements had been lodged with the Employee Relations Commission by August 1993. Only 100 individual employment agreements had been notified to the Commission by July 5, 1993 (although there are likely to be a larger number of unregistered agreements).

In Queensland, 48 enterprise bargaining and certified agreements were registered by August 1993. More than 50 per cent were in the manufacturing sector.

In South Australia, 63 enterprise agreements were registered between February 1992 and August 1993.

By August 1993, 54 agreements were registered with the Western Australian Industrial Relations Commission, mostly from large enterprises.

In Tasmania, four agreements were registered by September under the new legislation, although more occurred under s.55 of the *Tasmanian Industrial Relations Act 1984* (the previous means of registering an enterprise agreement) .

As enterprise bargaining has become more widespread, several issues have come to the surface. The Prime Minister has expressed the view that:

> We need to find a way of extending the coverage of agreements from being add-ons to awards, as they sometimes are today, to being full substitutes (Keating 1993b, p.12).

This reflects the widespread belief that the potential of EBAs to bring productive changes within workplaces remains considerable.

The benefits of enterprise bargaining have been limited by the slow spread to date in the formal system, its concentration in the metals industry and the public sector and the more restricted access of non-unionised workplaces to certified agreements. As most non-union workplaces are small to medium sized businesses, this restriction in the Commonwealth (and hence Australian Capital Territory and Northern Territory), Queensland and South Australian systems could limit the use of formalised bargaining other than in large businesses.

The Commonwealth Government has indicated its intention to introduce legislative reforms to the industrial relations system to further facilitate enterprise bargaining (Brereton 1993).

Outcomes of EBAs

Several criticisms of the enterprise bargaining system have been raised. Due to a perceived push in the metal trades industry for wage increases not "linked to achieved productivity" via enterprise bargains, the Metal Trades Industry Association (MTIA) advised that its members exercise caution in engaging in enterprise bargaining. Specifically, the MTIA (1993, p.4) warned that:

> ... wage ... increase(s) ... not offset by productivity increases should not be acceptable.

On the other hand, in its inquiries, the Commission has found evidence of genuine reform through enterprise bargaining.

In its inquiry into Mail, courier and parcel services, the Commission noted that the enterprise agreement between Australia Post and its major unions (certified by the AIRC in October 1992) "should improve further Australia Post's labour force productivity" (IC 1992e, p.45).

The Commission also noted some of the improvements gained through implementation of EBAs and rationalisation of unions and awards in its report on Port authority services and activities (IC 1993d).

In its draft report into Adding further value to Australia's forest products, the Commission noted that EBAs had 'facilitated' change and reform (IC 1993e).

Labour market and retraining programs

Education, training and re-training have an important bearing on the ability of the workplace to match changing work and skill requirements.

The Commonwealth government provides funding for a wide variety of training and labour market programs. These include the following:

- Entry-level training programs such as the Commonwealth Rebate for Apprentice Full-time Training, Australia Traineeship System, and the Career Start Traineeships. These subsidise the costs of hiring apprentices and providing training for young people.
- Skills training programs which provide funding for projects associated with the development of competency-based approaches to training, and the implementation of a reform agenda for such things as competency standards and curricula and assessment procedures. These programs are directed at increasing the level and quality of skills training undertaken by industry and the promotion of training reforms.
- Labour market programs to help the unemployed find jobs, such as the JOBSTART, JOBTRAIN, SKILLSHARE, JOBSKILLS programs etc. In addition the Mobility Assistance Program (MAS) provides access to jobs that are not locally available, while the Office of Labour Market Adjustment assists workers who have been retrenched from industries affected by tariff reductions and structural change.

Total Commonwealth outlays on training and labour market programs will be approximately $1.3 billion in 1993–94. As can be seen in Table H13, a considerable amount is spent on programs such as JOBSTART and JOBSKILLS, which help the long-term unemployed re-enter the labour market.

State governments are also involved in the provision of training programs. These vary according to State, but the vast majority are provided through the TAFE system. In 1992, total expenditure on the TAFE system by the States totalled around $2.5 billion. Of this, Commonwealth funding

Table H13
Assistance to jobseekers and industry, 1993–94 ($million)

JOBSTART	356.7
JOBTRAIN	162.9
SKILLSHARE	180.0
JOBSKILLS	145.9
JOBCLUBS	26.5
Mobility Assistance Scheme	15.0
Accredited Training for Youth Program	74.4
Landcare and Environment Action Program	65.3
Community Activity Program	3.0
Office of Labour Market Adjustment Program	71.9
Other programs	215.8
Total gross outlays	**1 317.4**

Source: Dawkins and Willis (1993)

accounted for approximately 14 per cent of recurrent spending and 65 per cent of capital spending.

Conclusions

Unemployment, and long-term unemployment in particular, are major problems for the Australian economy and the people affected. They also appear to be problems that are getting worse, rather than better, over the long-term.

A return to strong economic growth may go some way to cutting into unemployment and long-term unemployment. But the experience of the 1980s has shown that this will not be sufficient to completely offset these problems.

Another factor that may become increasingly important is labour market flexibility. Enterprise bargaining and labour market training programs can facilitate improved labour market flexibility.

APPENDIX I
CONTRIBUTIONS TO GROWTH IN EMPLOYMENT

Over the last two decades, output increases have been the dominant influence on employment growth. However, because of factors such as greater capital intensity and productivity, even more output growth is now needed to provide growth in employment.

Employment has grown by nearly 30 per cent from 5.9 million persons in 1975 to 7.5 million persons in June 1992. If each unit of output required the same amount of labour input in 1992 as it did in 1975, the employment increase could be attributed entirely to the growth in output of goods and services. But in fact, there have been other factors affecting employment such as the substitution of capital for labour, changing working hours and general productivity improvements.

This appendix disentangles the main factors that have been associated with employment growth. It is a statistical decomposition rather than a causal analysis. For example, a productivity increase will show up in the analysis as a reduction in labour requirements — employment per unit of output. However, that productivity increase may have contributed to an overall employment increase if it stimulated sufficient output increases through enhanced competitiveness.

It is not possible to analyse the employment changes for the economy as a whole. The analysis must be restricted to the 'market sector' which is detailed in Table I1. The market sector accounts for about two thirds of national employment. The 'non-market' sector is excluded from the analysis because, in data collections, output is largely measured in terms of labour inputs.[1]

1 One component of the non-market sector — ownership of dwellings — employs no labour and is excluded for that reason.

Methodology

The methodology used to decompose employment changes is based on an analysis of changes in output and relating them to changes in inputs.

Changes in employment over the last two decades are explained by first decomposing changes in value added per person employed (labour productivity) into the parts associated with:

- the reduction in labour inputs (ie hours worked) per person. A reduction in hours worked by each person employed would increase the number of persons needed to produce a given level of output;
- relocation of labour inputs between industries. Relocation of labour to more capital-intensive activities would reduce the number of persons needed to produce a given level of output;
- growth in capital inputs per unit of labour. Growth in capital inputs per labour input would reduce the number of persons needed to produce a given level of output;
- relocation of capital between industries. Relocation of capital from labour-intensive activities to more capital-intensive activities would reduce the number of persons needed to produce a given level of output; and

Table I1
Industry groupings for the analysis of employment growth[a]

Market sector	*Other activities*
Agriculture, forestry, fishing and hunting	Finance, property and business services
Mining	Public administration and defence
Manufacturing	Community services
Electricity, gas and water	Ownership of dwellings
Construction	*Plus*
Wholesale and retail trade	Import duties
Transport and storage	Imputed bank service charges
Communication	
Recreation, personal and other services	

a The definition corresponds to that used in ABS Cat no. 5234.0 for estimation of multi-factor productivity.

- growth in multi-factor productivity to take account of the influences of factors such as technical change, the quality of labour and capital, and the intensity with which capital and labour are used. An improvement in multi-factor productivity would reduce the amount of capital and labour needed to produce each unit of output and, by implication, the number of persons needed to produce that output.

The estimation and disaggregation of labour productivity requires independent estimates of labour and capital inputs and outputs in the market sector. Although results are reported as sector-wide totals, the underlying estimation is undertaken for individual industries in the market sector. The results tabled are aggregated to market sector totals on the basis of the value added contribution of each industry.

Once the changes in labour productivity are decomposed, changes in employment can be attributed to the separate effects of growth in output and labour productivity.

For the market sector, growth in employment, labour and capital inputs and output have been estimated independently for each industry by the ABS. Details of the methodology and data sources are set out in the Annex to this appendix.

Results

Growth in the service industries — not included in the market sector analysis — has provided the main source (about 75 per cent) of employment growth in the national economy over the period (Table I2). Growth of employment in the finance and community services industries is mainly responsible (Appendix H).

Growth in output has provided the core source of employment growth in the market sector over the last two decades. It has overwhelmed the effect of lower employment due to lower labour requirements. Table I2 shows that labour requirements to support this output growth have been reduced by changes in industrial composition towards more capital-intensive activities, the use of additional capital per unit of output, and improvements in multi-factor productivity. In line with the methodology, fewer average hours worked shows up as a positive influence on labour requirements.

The net employment requirement per unit of output has steadily declined by about 1.5 per cent per annum over the past 17 years (Figure I1). The decline in labour requirements is, of course, the obverse of the increase in labour productivity (for international comparisons, see Appendix C).

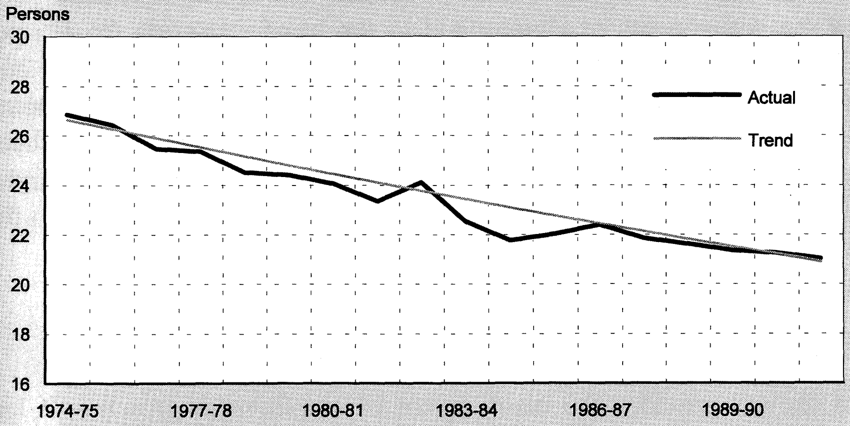
Figure I2 summarises the substantial year-to-year variations in labour requirements around the trend annual decline of about 1.5 per cent. The largest variations occurred around the 1982–83 recession and its aftermath. The rise in the employment requirements in the mid-1980s coincided with a period of strong employment growth (Appendix H). Since 1987–88, there has been a steady reduction in the labour required to produce each unit of output.

Table I2
Decomposition of changes in employment, 1974–75 to 1991–92 ('000 persons)

	Market sector	*Other activities*	*Total*
Employment 1974–75	4 359	1 571	5 930
Changes due to:			
Output growth	1 559		
Input growth and usage			
Reduction in labour input per person employed	567		
Relocation of labour input between industries	- 399		
Growth in capital per unit of labour input	-1 007		
Relocation of capital between industries	94		
Growth in multi-factor productivity	- 441		
Other	53		
Total	-1 133		
Net change (output and inputs)	**426**	**1 188**	**1 615**
Employment 1991–92	4 785	2 759	7 544

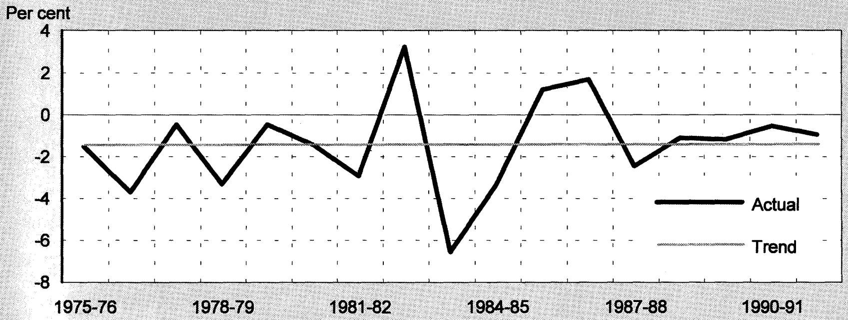
Source: Commission estimates. Employment data from ABS Cat no. 5204.0.

Figure I1
Annual employment requirements per million dollars of output, 1974–75 to 1991–92



Source: Commission estimates based on ABS data

Figure I2
Annual rate of change in employment requirements[a], 1975–76 to 1991–92



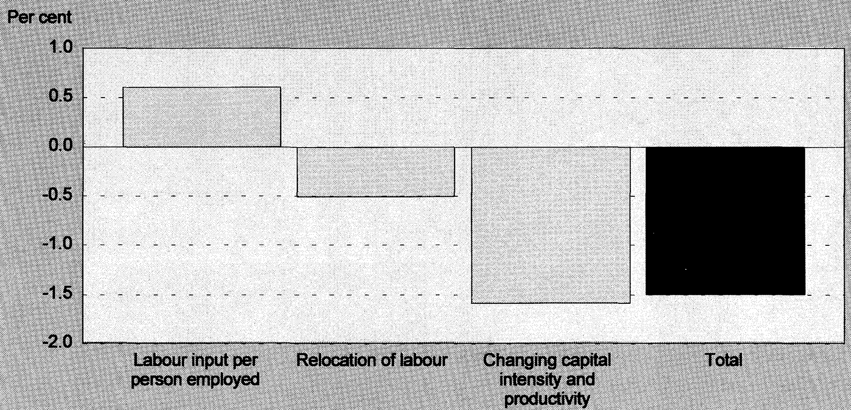
a Measured as numbers employed per million dollars of output.
Source: Commission estimates

The causality behind the changes in the employment requirements of output cannot be deduced from the analysis. Nevertheless, some statistical importance can be obtained. Figure I3 summarises the annual average contribution of different factors to changes in labour requirements. The sum of the components of change add to the trend reduction (ie 1.5 per cent) in those employment requirements. Changing capital intensity and productivity has been most influential in the statistical sense (in reducing labour requirements or increasing labour productivity). Relocating labour to more productive industries has been a lesser influence. However, these influences have been counter-balanced to some extent by reductions in the number of hours worked (labour input) by employees.

Implications for future employment growth

Output growth provides the main source of employment growth. It has overwhelmed the effect of lower labour requirements. However, because of falling labour requirements, even more output growth is needed to provide employment growth in the future. Alternatively, if growth

Figure I3
Average annual contribution to changes in employment requirements[a], 1975–76 to 1991–92



a Measured as numbers employed per million dollars of output.
Source: Commission estimates based on ABS data

prospects favoured the development of more labour-intensive internationally-competitive activities, the output growth required to increase employment would be less in comparison to growth sourced to capital-intensive activities.

However, that in turn will require more, rather than less, productivity growth. As outlined elsewhere in this report, improved productivity of labour and capital is essential to securing future output and employment growth without a decline in living standards.

ANNEX
Methodology and data used to analyse employment growth

Methodology

The classical approach to studying the productivity of labour and capital in production begins with an aggregate production function of the form:

$$(1) \qquad Y = Af(K, L^*)$$

where Y is output measured in terms of value added (ie gross product) and K and L are measures of capital and labour inputs. f is a function, with constant returns to scale, of factor inputs K and L^* that defines the expected level of output in year t, given the conditions and technology in the base period. A is a shift term reflecting influences such as technical change, quality of labour and capital and the intensity with which capital and labour are used.

In percentage change form, (1) can be written as:

$$(2) \qquad y = a + S_k k + (1 - S_k) l^*$$

where y, a, k and l^* are the percentage changes in Y, A, K, and L^* respectively, and S_k is the elasticity of Y with respect to K. Under the assumptions that:

- constant returns to scale apply, the elasticities S_k and $(1\text{-}S_k)$, sum to one; and
- capital and labour are paid according to their marginal products, S_k is the capital share in the value of output.

By subtracting the change in employment, l, from both sides of equation (2) and rearranging, the percentage changes in output per person employed for each industry i in the market sector can be shown as:

$$(3) \qquad y_i - l_i = (l_i^* - l_i) + S_{ik}(k_i - l_i^*) + a_i$$

Equation (3) expresses the percentage change in output per person employed (labour productivity) as the sum of three terms:

- $(l_i^* - l_i)$ which is the percentage change in labour input per person employed. An additional unit of labour input from each person would have a positive effect on average productivity. By adding and subtracting the term $(l^* - l)$ for the market sector as a whole, this change can be disaggregated to show the change coming from increased hours worked by all people in the market sector and the relocation of labour between industries in the market sector. That is, $(l_i^* - l_i) = (l^* - l) + \{(l_i^* - l_i) - (l^* - l)\}$.

- $S_{ik}(k_i - l_i^*)$ which is the percentage change in the capital to labour ratio $(k_i - l_i^*)$ multiplied by the elasticity of output with respect to capital input (S_{ik}). An additional unit of capital relative to labour would have a positive effect on the level of output per person employed. This change can be disaggregated to show the change coming from increased capital inputs in the market sector and the relocation of capital between industries in the market sector. That is, $S_{ik}(k_i - l_i^*) = S_{ik}(k - l^*) + \{S_{ik}(k_i - l_i^*) - S_{ik}(k - l^*)\}$
- a_i which is the percentage change in total factor productivity. An increase in total factor productivity would have a positive effect on the level of output per person employed.

Having obtained changes in output per person employed, it becomes possible to also obtain changes in employment for each industry in the market sector. When aggregated, these provide changes in employment for the market sector as a whole.

Data

All data is sourced to Australian National Accounts, National Income and Expenditure (ABS Cat no. 5204.0, 1991–92 issue).

Output is estimated by gross product by industry at average 1989–90 prices as reported.

Employment comprises all labour engaged in the production of goods and services by industry. The annual figures are simple averages of available observations during the year.

Quantities of labour inputs , ie hours worked, are published indexes derived by the ABS by multiplying average hours worked from the labour force survey by industry employment.

Quantities of capital input are measured as published indexes of aggregate fixed capital stocks at average 1989–90 prices. To allow for the fact that the service life of assets does not decline in proportion with the depreciated value of the asset, the index of capital inputs adopted in this study gives equal weight to the gross value and the written down value of fixed assets.

Labour and capital input shares are estimated by the share of wages, salaries and supplements , and gross operating surplus in gross product at factor cost by industry.

Governments and the reform process

J Rate of return targetting

K Dividend and other payments by government business enterprises

L Progress on microeconomic reform

APPENDIX J
RATE OF RETURN TARGETTING

Governments are increasingly setting rate of return targets for their government business enterprises (GBEs). They are performance targets designed to improve the efficiency of operation of enterprises and to reduce calls on taxpayers' money to fund deficits. However, narrow and rigid reliance on financial targets can undermine efficiency and create problems for other industries if GBEs inappropriately raise prices and/or reduce the quality of service to meet targets. Financial targets are useful if set in the context of a range of other (non-financial) performance measures, and efficiency improvements are stimulated by direct means. The other use of rate of return targets — to evaluate the merit of new investment proposals — is much less controversial and much underplayed in GBE reform programs.

Commonwealth and State Governments have used rate of return targetting in the monitoring and control of public enterprises. It is seen to bring some disciplines on public sector performance which apply to the private sector. The Commonwealth Department of Finance (1988, p.6) states:

> ... the fundamental rationale of the rate of return reporting approach ... is to allow a measure of decontrol of GBEs in an environment in which they are explicitly subject to performance requirements related to levels of achievement in the private sector.

Governments have several objectives in rate of return targetting — monitoring performance, improving enterprise efficiency and improving efficiency in the economy generally.

Applications of rate of return targetting

Rate of return targets can be distinguished according to hurdle rates for new investment and financial targets for past investment.

Hurdle rates for new investment

The first application of rate of return targets is in the evaluation of new investment proposals. A minimum expected return on the investment is required before the investment can go ahead.

The appraisal of investment projects may be conducted according to a financial objective or broader economic objectives. In the latter case, cost-benefit analysis is used to take account of a range of costs and benefits of different projects which are not captured by the enterprise and therefore do not form part of its financial appraisal. The value of the rate chosen and whether it is based on the social rate of time preference, the opportunity cost of capital, or some composite of these is the subject of much debate.

Hurdle rates contribute to the wise investment of the community's resources. New investments of GBEs are typically very large and long-lived and involve large capital expenditures. These resources need to be employed as efficiently as possible, rather than contribute to wasteful expansions of capacity. The use of hurdle rates and careful investment appraisal procedures provides an important precaution against entering into investments expected to be unprofitable.

Financial targets for past investment

The other application of rate of return targetting is to set performance requirements on all existing investments and monitor the results. Governments often specify a rate of return they expect their enterprises to earn over time on the total assets under their control. This is a financial target.

Many governments set financial targets for GBEs with the aim of securing better performance. Improved cost recovery and improved economic efficiency are often-stated goals.

However, there is a potential tension, even conflict, between the use of rigid financial targets to improve cost recovery and profitability, on the one hand, and the goal of improving the efficiency of GBEs on the other. The degree of tension is determined by the market structure in which GBEs operate. The circumstances in which conflict between these objectives may emerge is discussed in the following sections.

For the most part, the Industry Commission has concentrated on the role of financial targets in improving the performance of GBEs (Box J1). It has advocated the use of rate of return targets to encourage GBE managers to focus more on full cost recovery and improve economic performance. The Commission has acknowledged also that rate of return targets can distort pricing and investment decisions, especially in cases where monopoly elements are present. As a result, some caution should be exercised in interpreting rate of return performance against specified targets in different GBEs operating in different market environments. The Commission generally has emphasised the need for non-financial performance targets to complement financial targets.

Current practice in rate of return targetting

Ex-post or financial targets have figured prominently in the GBE reform programs of governments. Setting guidelines for investment appraisal and decision-making by GBEs has not featured as strongly, although for several GBEs it has been a long-standing practice.

Investment appraisal and discount rates

Most governments have developed public guidelines for investment appraisal by their public enterprises. Several GBEs use sophisticated procedures for investment appraisal.

The approach recommended by the Commonwealth Department of Finance has been adopted, in a modified form, by some States. This approach calls for a cost-benefit analysis to be undertaken to compare the net present value of alternative investment proposals.

The basis for selecting a discount rate (as a hurdle rate) is the main area of difference between governments.

The Commonwealth Department of Finance and Queensland Treasury have developed a two-tiered approach to investment appraisal. Both differentiate between commercial and non-commercial activities of government. Commercial activities are to use the Capital Asset Pricing Model (CAPM) to choose a project-specific discount rate as long as there are analogues in the private sector. Non-commercial activities are treated

Box J1
Commission statements on rate of return targetting

Energy generation and distribution (IC 1991b)

Where public enterprises are engaged in the production of marketable goods — such as electricity and gas — it is appropriate that their performance be assessed against criteria similar to those used in evaluating comparable private concerns. A requirement to meet a specified rate of return on capital employed is the financial target most comparable with commercial practices (p.64).

Intrastate aviation (IC 1992b)

Adoption of cost recovery and target rates of return ... provide transparent mechanisms which can assist in monitoring and identifying deficiencies in a GBE's performance. They also assist in developing investment decisions at airports and allow the community as a whole to earn a rate of return on its assets. This ensures that both the owners and the users benefit from the efficient construction and operation of airports (p.97).

Water resources and waste water disposal (IC 1992c)

... in practice, direct calculation of capital costs is not possible, because with government ownership, there is no direct market assessment of the cost to an authority of equity funds. Accordingly, the Commission sees little alternative to authorities setting prices to achieve an overall rate of return on their assets (p.71).

What is important is not whether the required rate of return is achieved in any particular year, but rather that (for sound investments) it is achieved over the full life of the asset systems in question (p.72).

Port authority services and activities (IC 1993d)

Target rates of return should be just that: rates which the port authority is expected to achieve on average over time. A public body could not be expected, as neither could private enterprise, to succeed in meeting particular levels of performance and achieving particular results year-in, year-out. Market conditions and wider economic factors will all affect results (p.53).

The Commission considers that performance targets need to be set for port authorities, and that performance monitoring should be rigorous and transparent. Providing clear objectives and more management freedom to a board will only improve efficiency if there are established methods to assess the board's performance against targets appropriate to the authority's objectives, and to the resources it utilises. This is especially so as there is no share price for public authorities, which can serve to reflect their performance (p.59).

... setting performance targets, such as rates of return on assets, is one way to induce them to improve their economic performance and accountability (p.126).

differently by the two departments. The Department of Finance uses the social opportunity cost of capital to set the discount rate and recommends 8 per cent as a target, while Queensland uses the social rate of time preference and recommends 6 per cent.

The South Australian and Victorian Governments have chosen uniform targets for investment appraisal of 8 and 7 per cent respectively.

The Tasmanian Government does not have formal guidelines for the appraisal of investment projects of GBEs. Proposals over a certain financial amount are decided on a case-by-case basis by a Public Works Committee. The major GBEs in Tasmania, as elsewhere, have developed their own formal investment appraisal procedures.

Financial targets

Most governments in Australia require their GBEs to meet financial targets. The targets are usually set in real terms.

While most GBEs have financial targets, the need for some flexibility is acknowledged. For example, the South Australian Government has set 8 per cent as its required target, but it does recognise that in the shorter term GBEs may not be able to attain it, or they may need to accommodate other objectives. In NSW, the target is negotiated between the GBE and the relevant minister and formalised in a Statement of Financial Performance.

There is substantial variation between governments in the target rates of return selected, the treatment of risk and taxation in selection of targets, the asset base used and its valuation, and how community service obligations are treated.

Victoria and NSW favour a target that provides a return comparable to that achievable on alternative commercial investments — the social opportunity cost of capital. Queensland prefers an economic rate of return which is to be determined for specific GBEs by observing the rate of return that similar enterprises or activities achieve. Where similar returns cannot be observed, the target would be set according to the long-term bond rate plus a risk margin. South Australia and Tasmania have elected to set uniform targets of 8 and 4 per cent respectively.

States also vary in their treatment of risk between enterprises. For example, South Australia's target of 8 per cent does not differentiate between utilities. Queensland, however, proposes that where targets are set, they would vary across enterprises according to risk exposure.

The measured rate of return on assets will vary according to the method used to value the assets of an enterprise. Asset valuation techniques vary between enterprises and jurisdictions. Assets are often valued by enterprises on an historical cost basis but, increasingly, depreciated replacement cost or current market values are used. In some cases, asset values reflect a mixture of these methods so that some assets have been revalued and others have not. A technical sub-committee of the Steering Committee on National Performance Monitoring of Government Trading Enterprises is in the process of developing a consistent set of guidelines for asset valuation and expects to finalise its recommendations soon.

The requirement for GBEs to meet community service obligations (CSOs) can influence the financial performance of those enterprises. The preferred approach of many governments to CSOs is to fund them directly from revenue. However, the practice remains in many cases that CSOs are funded through cross-subsidies and/or lower rates of return. For example, Queensland accepts that if direct funding is not practicable, options such as cross-subsidies and a lower rate of return would be considered.

Financial targets and performance monitoring

Financial targets provide a means of monitoring the financial performance of past investments by GBEs. The owning government compares the rate of return performance of enterprises against benchmark targets it has set for them. A similar process occurs in private firms.

Central issues in using financial targets to assess performance include setting the target, the rate of return measure to be used and the approach to asset valuation and depreciation.

Used as a performance benchmark, financial targets can assist governments in determining priorities for the use of community resources. Comparing returns against a financial target can indicate whether a business unit within an enterprise should be expanded or contracted. Sustained rates of return greater than the benchmark could signal new capital expenditure; sustained economic returns less than the target could suggest a contraction in capacity is required.

Failure by a GBE to achieve an acceptable return on assets over time could suggest a change in the commercial policies of the enterprise and possibly a change in the management of the enterprise. However, differences between rate of return outcomes and expectations are inevitable. As the Commonwealth Treasury (1990, p.89) notes, a divergence of an enterprise's achieved returns from the target may not necessarily indicate that a change in strategy or management is required. It is first necessary to establish the cause of the lower than expected return; for example, whether it is due to diminished operational efficiency, past bad investment decisions, a temporary divergence within the normal range, or a reflection of general economic conditions.

Industry-specific and economy-wide influences will be important considerations in the assessment of outcomes. A review of economy-wide trends in returns and the performance of private sector firms with similar characteristics may provide some guidance as to the effect of market conditions on divergences between achieved rates of return and financial targets.

There can be pitfalls in relying on financial measures of GBE performance without reference to other indicators. There is a possibility that increased financial performance may be achieved by stripping assets and reducing overall quality of service. Similarly, the absence of competition may permit enterprises merely to increase prices to achieve the required rate of return.

On its own, the financial target is not a sufficient test of performance. It is only one of a number of measures that should be used.

Non-financial indicators may include measures of quality of service, efficiency and effectiveness, and may be specific to particular industries.

Formal procedures for auditing the performance of GBE investments are another means of supplementing financial targets. Audits of capital expenditure are now undertaken by many private sector companies. They help identify problems, review the accuracy of forecasts and suggest questions that should have been asked before the project was undertaken.

They can provide useful information in the next round of decision-making on capital investments.

Thus, financial targets are just one among several procedures for evaluating the performance of GBEs.

Financial targets and efficient pricing

As mentioned earlier, one of the objectives of governments in using financial targets is to improve enterprise efficiency. This goal can be frustrated if enterprises merely raise prices, rather than attack costs, to meet their financial targets. The ability of GBEs to use the price mechanism in this way depends on the degree of competition they face.

Competitive markets

In fully competitive markets prices usually reflect short-run marginal costs — that is, the cost of producing and selling an additional unit of output.[1] This pricing practice generally leads to efficient production and use of the relevant goods or services.[2]

In fully competitive markets, the pressure of competition dictates pricing policy. GBEs will only shift their pricing away from the dictates of the market at their peril. If the financial targets exceed prevailing rates of return in the market and if GBEs raise their prices above their competitors to meet the target, they will likely lose market share and fail to meet the financial target with the existing asset base.

Competition puts pressure on GBEs to reduce their costs and set prices to achieve a market rate of return. Financial targets have little contribution to

1 Capital costs are not included in short-run marginal cost. However, in principle, there is no contradiction between short-run marginal cost pricing and the goal of full cost recovery. Marginal cost pricing will result in full recovery of costs and efficient use of resources so long as demand forecasts are not over-optimistic. This is so because, with a given technology, there is usually a point in production beyond which additional variable costs exceed average costs. Consequently, there is no need to incorporate capital costs directly into pricing policy in these market conditions. The level of profit or cash flow is derived from appropriate pricing and efficient operations; it is not a determinant of pricing policy and the scale of operations.

2 For further discussion see IAC (1989).

make in this regard except for the planning purposes of enterprises. Indeed, Gravelle (1976, p.14) argues that financial targets of any kind are redundant. Rees (1986, p.321) states:

> The important point to note is that once the opportunity costs of inputs, especially capital, are properly computed, and an appropriate pricing policy is implemented, then the enterprise profit is fully determined — a 'profit target' cannot have a separate and independent existence ... the kind of financial target envisaged cannot be an instrument of achieving allocative efficiency.

In fully competitive markets, therefore, financial targets should not be applied rigidly. They should be treated as indicative planning goals which are secondary to efficient pricing objectives. Otherwise, GBEs may be pressured to adopt unsustainable pricing practices.

A complication, however, in considering the relationship between financial targets and pricing policy arises where practical considerations, such as administrative and transactions costs, preclude pricing at short-run marginal cost. In these circumstances, enterprises may adopt avoidable cost or average incremental cost as an achievable benchmark for efficient pricing.[3] Here, prices need to be set to cover the (marginal) hurdle rate of return on new investments, rather than the (average) financial target rate.[4]

Approximation of marginal cost, usually some long-run version, remains paramount for efficient pricing by GBEs. Price is determined at the margin, by the cost of additions to output. Incorporation of average financial targets in pricing would lead to inclusion of incorrect capital costs. Consequently, the goal of making the most efficient use of the community's resources could be undermined.

3 Avoidable cost is an approximation of marginal cost. It incorporates longer-run costs so that it represents some mixture of short-run and long-run marginal cost. It includes all costs associated with the provision of an additional block of output. These are the average incremental variable costs of the extra output and the estimated additional capital costs of the additional capacity.

4 Ideally, the rate of return to be expected on new investments would coincide with target rates of return for assessing the performance of existing assets. But, in practice, this is not always possible, particularly in the case of long-lived assets. The cost of capital changes over time and not all expectations held for past investments will have been fully met. Valuation of specialised assets is likely to be difficult. Moreover, it may not be practicable to liquidate assets which are not performing to the current expected rate of return, for example, because of government policy.

Non-competitive markets

Where GBEs are protected from competition by legislative barriers to entry, financial targets can reinforce inefficient pricing practices. Targets can be achieved by adopting any one of a number of different pricing policies. For example, the targets could be met by simply raising prices to cover average costs.

If prices in general are raised, users may or may not be inappropriately 'taxed' by higher charges.[5] It would depend on whether the increase in prices was instituted to achieve satisfactory performance in terms of the enterprise's cost recovery. It would also depend on whether the enterprise's financial performance was best improved by raising revenue or reducing costs.

Efficient pricing remains a key requirement for GBEs operating in imperfect markets. It would rule out cross-subsidisation in general and would base prices on the relevant costs of production. Efficient pricing can be encouraged by introducing as many market disciplines as possible or by some form of regulatory arrangement.

With costs contained and properly identified and prices set appropriately there is little place for financial targets in improving cost recovery and efficiency of GBEs.[6]

The significant exception to this conclusion occurs in markets characterised by natural monopoly where pricing at long-run marginal cost will result in losses for the enterprise. Several GBEs operate in markets which contain elements of natural monopoly. Here, imposition of a financial target offers an alternative to sustained losses by requiring the enterprise to price above long-run marginal cost and recover full costs including a return on capital. A financial target in this sense is simply another form of indirect taxation. The choice is essentially between taxation methods. The inefficiency involved in raising a toll above marginal cost to reduce enterprise losses must be weighed against the inefficiencies incurred elsewhere in the economy by distortionary taxes levied to finance the losses of GBEs.

5 If a GBE met its target by cross-subsidisation between different activities, some users would be inappropriately taxed by higher charges.

6 But, as outlined above, where practical considerations dictate pricing to cover long-run marginal cost or avoidable costs, the (marginal) hurdle rate of return expected on new investments would be included in the costs to be recovered.

In the case of a single product natural monopoly, incorporation of a financial target in pricing is straightforward. Prices can be set at average cost, including the required return on capital. The required financial target is directly incorporated into the price set. An alternative is some non-uniform pricing structure, such as a two-part tariff, which would promote certain efficiency properties compared to average cost pricing. In the more general case of multiproduct enterprises, however, pricing is more complicated and the role of financial targets in contributing to (relatively) efficient pricing is more indirect.[7]

Whatever way financial targets are incorporated in the pricing of the products of natural monopolies, the problem remains that these enterprises are able to raise prices to cover the target without necessarily operating at minimum cost. Consequently, it is likely that use of financial targets in natural monopoly pricing will need to be accompanied by regulation to encourage efficient pricing and/or cost minimising behaviour.

The circumstances of under-recovery of costs provides another qualification. Here, financial targets may have a transitional role in improving cost recovery. Increasing prices to raise revenue may be the expected outcome.

7 One way to allocate the financial target among different products is to implement a price discrimination policy such as Ramsey pricing. Under Ramsey pricing, all prices are set to exceed marginal costs in a pattern which satisfies the need to earn a specified level of profit and to minimise the impact on consumption decisions. Products where the quantity demanded varies relatively little as prices change are given a large mark-up and products where quantity demanded is more elastic as prices vary are subject to a lower mark-up. If the enterprise was not previously recovering marginal costs, prices to all customers will rise as a result of Ramsey pricing but the increase will be more for some customers than others.

Ramsey pricing is a means of obtaining consistency between financial targets and (relatively) efficient pricing. But, in this case, the financial target is not directly incorporated into the prices set. Prices are set subject to a fixed and exogenously determined profit constraint. It may indicate a minimum or maximum level of profit. The level of prices charged, as distinct from the structure of prices for different products, is determined by the level of profit to be achieved. This absolute level of profit can be derived from the rate of return expected on the enterprise's asset base.

The informational administrative and regulatory costs of Ramsey pricing are severe and more practical price setting arrangements can be employed to promote cost minimising behaviour on the part of the enterprise and which also incorporate a financial target.

Financial targets and enterprise efficiency

Financial targets are sometimes viewed as a means of stimulating and assessing managerial performance. The idea here is that the profit target puts pressure on management to cut costs and eliminate waste and inefficiency in operations. Its validity hinges on the premise that managers will choose to meet a specific financial target by reducing costs and improving efficiency in operations, rather than by putting up prices.

The likelihood of an improvement in technical efficiency from rate of return targeting depends on the existence of rewards to and sanctions on the manager. Security of tenure and rigidity in remuneration arrangements could be a barrier to the enforcement of rewards and sanctions. For financial targets to be effective in promoting managerial efficiency, it should be clear what penalties will be imposed on the enterprise if the target is not achieved. Without appropriate penalties and rewards, the failure to achieve targets could result in subsequent price increases in order to be able to realise the target in future. If this were to occur regularly, the target would not be an effective way of promoting enterprise efficiency.

In the absence of competition, the difficulty is to provide managers with the right incentives. Financial targets provide no guarantee of cost-minimising behaviour and may even support cost-padding. Unless there is some discipline on prices, targets may be achieved by increasing prices rather than by cutting costs. Sanctions and rewards for managers can help, but these need to be determined on the basis of incentives to reduce costs.

The effects on allocative efficiency of arbitrary financial targets for GBEs not derived from efficient pricing policies have led some to conclude that:

> Managerial efficiency can better be pursued when divorced from pricing policy (Lintner 1981, p.31).
>
> ... the pursuit of technological and managerial efficiency should be divorced from the question of profitability, and should be undertaken directly, rather than indirectly through pricing policy (Rees 1984, p.156).

Rees advocates efficiency audits as a more appropriate instrument for ensuring improvement in enterprise efficiency than financial targetting. He sees these audits as a means to stimulate managerial and technological efficiency which is consistent with greater decentralisation of pricing and investment decisions (see also Rees 1986). Many overseas efforts at reform, where competition is not prevalent, incorporate incentives for cost-minimisation as a means of ensuring enterprise efficiency.

Where possible, competition must remain the primary mechanism for promoting public enterprise efficiency. In its absence, the financial targets provide, at best, an indirect means to more efficient operations by improving transparency. Assessment of financial performance against financial targets provides a basis for asking questions of enterprise management. As a well-known textbook on corporate finance states:

> Financial ratios seldom provide answers but they do help you to ask the right questions (Brealey and Myers 1991, p.696).

Supplemented by a range of non-financial indicators, financial targets can be used to provide a source of public pressure on management performance.

Conclusion

Proper investment appraisal procedures by GBEs are fundamental to improvements in the allocation of resources to different activities and the productivity of enterprises. Improvement in allocative efficiency requires investment appraisal procedures to ensure that new investment achieves a satisfactory rate of return. To date, the reform of investment appraisal procedures and choice of hurdle rates of return have perhaps not received the focus they deserve in improving GBE efficiency.

In contrast, setting financial targets has been a major focus of GBE reform programs. Financial targets aim to provide a direct incentive for enterprises to pursue cost recovery and reduce the drain on government budgets. To this extent, they have an important transitional role in GBE reform especially where cost recovery has been low. They serve to improve the commercial focus of GBE operations while other structural reforms are being implemented.

This use of financial targets should be subject to several qualifications. Most importantly, they should be used in a way which is consistent with pricing and investment policies to promote efficiency in GBEs. They should be complemented by other indicators of GBE performance.

Financial targets are not a general instrument for directly promoting economic efficiency. They can create a conflict of objectives for enterprises between achieving specified profit outcomes and efficient prices. The danger is that continual rigid application of targets will direct enterprises to focus more on achieving the target rather than efficient pricing and responding to competition with consequent implications for efficiency. This danger is compounded in situations where GBEs are protected from potential competition by legislative barriers to entry to an industry. Depending on the existence of other disciplines — especially on pricing — financial targets do not necessarily contribute directly to improving managerial and technical efficiency in enterprises.

Once structural reforms are implemented and GBEs operate on a fully commercial basis, subject to actual or potential competition, the role of financial targets is to facilitate monitoring performance and to assist in financial planning. Imposing rigid financial targets may preclude efficient pricing by GBEs in a market structure of actual or potential competition.

Where practical considerations dictate pricing to cover longer-run costs, including the capital costs of new investment, the appropriate rate of return to be incorporated is that expected on the additional capacity and not the average rate of return targetted for the total asset base of an enterprise.

Financial targets can make a direct contribution to improving economic efficiency in the case of decreasing long-run costs, where governments have rejected the approach of directly funding deficits in favour of full cost recovery. Here financial targets contribute to a 'second best' approach to improving allocative efficiency.

APPENDIX K
DIVIDEND AND OTHER PAYMENTS BY GOVERNMENT BUSINESS ENTERPRISES

Many government business enterprises (GBEs) are now required to make dividend and other payments to governments. While these payments have increased in recent years, there is wide variation between industries and jurisdictions in dividend policies, the basis on which they are set, and the level of payments. The monopoly position enjoyed by many GBEs has the potential to support excessive dividend payouts to finance government budgetary programs. There have been examples of very high dividend payments but the overall picture seems to be that payments to government remain too low rather than too high. Many GBEs make either no dividend payments or very low payments.

Increasingly, governments are calling on GBEs to make dividend payments and other contributions. This appendix reviews trends and practices in dividend and other payments to government. It assesses whether GBEs are being required to pay excessive dividends.

Dividend policies

All governments now require dividend payments from at least some of the GBEs operating in their jurisdictions. Dividends can be broadly defined as payments by a company out of profits to its shareholders as a return on their equity.

Dividends come in many forms. The most common for GBEs is a regular cash dividend out of current profits. If current profits are inadequate, enterprises can be required to make payments from reserves established from profits of previous years. At times, GBEs are required to make special cash contributions to government. Some GBEs pay a regular statutory contribution to government, in lieu of dividend payments, which are usually treated as dividends for reporting purposes.

Dividend policies vary between governments in Australia, as does the range of GBEs covered by these policies.

The Commonwealth Government determines dividend requirements on the basis of after-tax profits of enterprises. The Victorian Government is also moving towards a policy of determining dividend payments on the basis of after-tax profits. The previous Victorian Government set dividend payments on the basis of several factors including a percentage of public equity.

The dividend payments by NSW GBEs are determined as part of a total payment to government which incorporates tax-equivalent payments. GBE payments to the Government of NSW are expected to be at least 50 per cent of pre-tax profits. The Victorian Government is implementing a tax equivalent payment regime for selected enterprises and which may be extended to other enterprises.

Some enterprises pay a regular statutory contribution to government which is set on the basis of sales revenue. For example, the Electricity Trust of South Australia (ETSA) pays five per cent of sales revenue to the South Australian Government and the State Energy Commission of Western Australia (SECWA) pays three per cent of sales revenue to the Western Australian Government. This serves to maintain payments to government despite any decline in operating profit. For example, even though operating profit had slumped, SECWA's payout ratio was 778 per cent of pre-tax profits in 1989–90 because sales revenue was maintained. In other cases, statutory contributions to government are determined without regard to the financial circumstances of enterprises.

In some jurisdictions, a common dividend rate is fixed by government for all the GBEs required to pay dividends. The fixed rates often vary between jurisdictions, even for GBEs operating in the same industry. In other cases, the rate of payment is determined for individual GBEs from year to year.

A number of public enterprises are not required to pay dividends to government. Examples include water authorities, such as the Engineering and Water Supply Department of South Australia and the Hobart Regional Water Board, and the port authorities of Darwin and Geelong. Extensive losses by enterprises in the rail and urban transport sectors generally preclude regular dividend payments to governments.

Several Queensland GBEs will be required to make dividend payments under new legislative arrangements being implemented by the Queensland Government. Three of the four major port authorities in Tasmania have been making 'voluntary' contributions to the Government as an interim arrangement prior to amendments to the legislation. The new arrangements require port authorities to make income tax equivalent payments to the Government but do not mention dividend payments.

In addition to regular dividend payments, some governments require some of their GBEs to make special dividend payments or statutory contributions to government. For example, the Gas and Fuel Corporation of Victoria (GFCV) is required to make an annual Public Authority Contribution to the Victorian Government in addition to ordinary dividends. It is currently set at 30 per cent of total gas revenues. In 1991–92, it amounted to $258 million on a revenue of $1.1 billion. The payment is in recognition of the economic rent implicit in the gas resources of the State. In the same year, the Sydney Water Board paid a special dividend to the NSW Government of $100 million. In October 1992, the new Victorian Government announced special dividends to be payable by the State Electricity Commission of Victoria (SECV), the GFCV and Melbourne Water. These special dividends were estimated at $98 million for 1992–93 and rising to $178 million in 1993–94 (VCA 1993, pp.342-3).

Trends in dividend payments

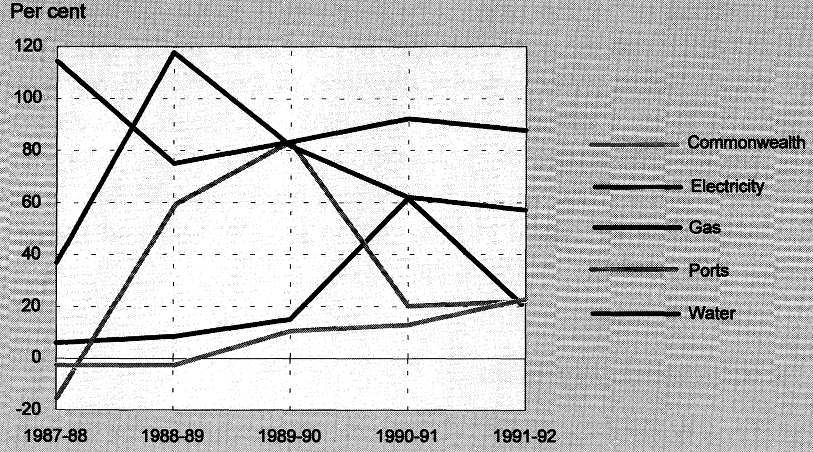
A recent study published by EPAC (Clare and Johnston 1993b) indicates that total dividend payments as a percentage of earnings after interest and tax have increased in aggregate for Commonwealth and State GBEs paying dividends. Over the three years to 1991–92, the proportion has increased from 36 per cent to 58 per cent.

For Commonwealth GBEs, the ratio has more than doubled over the three years, from 18 per cent to 43 per cent. In the case of State government GBEs the ratio declined from 85 per cent in 1989–90 to 69 per cent in 1991–92. This change largely reflects a decline in dividend payments in the energy sector from 214 per cent in 1989–90 to 70 per cent in 1991–92.

The Steering Committee on National Performance Monitoring of Government Trading Enterprises (SCNPMGTE 1993) has published data on the dividend payout ratios (dividends as a proportion of operating profit before tax and after abnormals) of GBEs in several core industries. These data are summarised in Figures K1 and K2.[1]

From Figure K1 it can be seen that, over time, governments have been able to obtain substantial dividend payouts from their gas and electricity GBEs. Generally, lower payouts have been obtained from water, ports and a group of major Commonwealth GBEs which include Telecom, Australia Post and the Federal Airports Corporation; but exclude the Snowy Mountain Hydro-electric Authority and the Pipeline Authority. The average payout ratio for

Figure K1
Average dividend payout by industry[a], 1987–88 to 1991–92

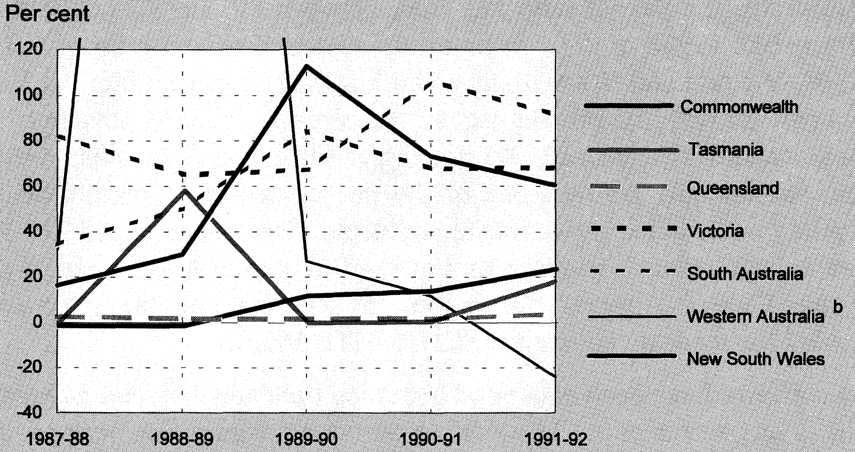


a Calculated as percentage of operating profit paid or provided for as dividends. Individual ratios combined using total revenue weights.

Source: SCNPMGTE (1993)

1 Railways and urban transport are excluded because in general they do not make dividend payments. The ACT has been excluded as only ACTEW provides a dividend. The Northern Territory has also been excluded as none of its GBEs provide a dividend.

Figure K2
Average dividend payout by jurisdiction[a], 1987–88 to 1991–92



a Calculated as percentage of operating profit paid or provided for as dividends. Individual ratios combined using total revenue weights.

b Ratio in 1988–89 over 450 per cent (see footnote 2).

Source: SCNPMGTE (1993)

port and water authorities has fluctuated significantly over the period, but was quite low in 1991–92. Payments from Commonwealth GBEs remain low but have been increasing in recent years. Urban transport and railways are in loss making situations and therefore do not generally contribute dividends to government.

Figure K2 shows the average dividend payout ratio for GBEs in different jurisdictions.[2] While there have been fluctuations, dividend payments have for the most part increased over the period. There have been some significant differences in the level of payments between jurisdictions. GBEs in NSW, Victoria and South Australia have paid a higher proportion of profit before tax in dividend payments than GBEs in other jurisdictions.

2 In 1988–89 SECWA had a dividend payout ratio of 778 per cent. This caused the Western Australian 1988-89 weighted dividend payout ratio to be over 450.

The dividend payouts by GBEs in NSW, Victoria and South Australia are similar to those of the private sector. Aggregate dividend payout ratios in recent years for private sector companies, constructed from Australian Stock Exchange data, have been 70 to 80 per cent of earnings. In the case of industrials, the payout ratio has been between 80 and 90 per cent of earnings (BIE 1993b, p.17). At times, the dividend payout ratio of GBEs in NSW, Victoria and Western Australia has been relatively high, at least in comparison with the private sector. In general, dividend payments by Commonwealth, Queensland, Western Australian and Tasmanian GBEs remain substantially below those of the private sector. Commonwealth enterprises make quite low dividend payments. For example, in 1991–92, Australia Post had a dividend payout ratio of 21 per cent, Telecom 28 per cent, the Federal Airports Corporation 6 per cent and the Australian National Line made no payments (SCNPMGTE 1993).[3]

Some concerns have been expressed about the trends in dividend payments by GBEs to governments. There is concern that governments, recognising the monopoly power of many GBEs to increase prices, could use payments from these enterprises to support budgetary objectives in the face of a declining tax base and limitations on Commonwealth financial grants. Payments of dividends by GBEs making losses, dividend payments which exceed annual profit and special contributions required by governments have been cited as evidence of governments using GBEs as ‘milch cows’. However, as discussed in the next section, high dividends are not necessarily evidence of ‘excessive’ dividends.

There are several examples of GBEs which have paid dividends to government while making losses (earnings after interest and taxation). For example, ETSA paid contributions to the South Australian Government in 1984, 1985 and 1987 despite returning losses in all those years (ETSA 1992, p.61). In NSW, the State Transit Authority paid a dividend of $58.35 million in 1991–92 and the State Rail Authority paid a contribution to government of $7.8 million, despite both enterprises incurring losses on their operations (Fahey 1992, pp.3.11-3.12).

3 The Commonwealth Government has announced a dividend benchmark of 50 per cent of profit after abnormal items and tax. Payout in any given year will take into account the effect on a GBEs operations and its capital structure so that payment by a GBE in any year may be higher or lower than the benchmark (Dawkins and Willis 1993, p.4.36).

Many GBEs at some time in the past five years have paid dividends greater than their profit figure or an extraordinarily large percentage of their profit in dividends. For example, the Port of Melbourne Authority paid a dividend of $10 million in each of the years 1991 and 1992, but the return on equity in the years preceding the payment of these dividends was less than the dividend payments and in one year was negative (IC 1993d, p.57). SECWA made a profit in 1988–89 of $4.2 million but paid a statutory contribution to the Government of nearly $33 million (SECWA 1992, p.37). The SECV has stated that between 1982–83 and 1991–92 it earned $1.1 billion in profit and paid $954 million in dividends and that these large dividend payments impeded it in achieving a fully cost competitive position (SECV 1992, p.5). Sydney Electricity had a payout ratio of 237 per cent in 1989–90, the Gas and Fuel Corporation of Victoria has made payments in excess of 100 per cent for the years 1990–91 and 1991–92, the Pipelines Authority of South Australia made a payment of 168 per cent in 1989–90 and the South Australian Government has taken 100 per cent of the operating profit of the Department of Marine and Harbors in dividends in each of the last four years (SCNPMGTE 1993).

The Commission has noted that some energy authorities have been required to meet 'extraordinary dividend' or other 'ad hoc' payments to government (IC 1991b, Vol.III, p.69). It has stated that these arrangements may well be counter-productive by creating uncertainties in investment and cash flow planning.

In its report on Port authority services and activities, the Commission stated that several State Governments have used port authorities as revenue raising mechanisms irrespective of their profitability (IC 1993d, p.59). It said that the lack of competition between ports has facilitated the fulfilment of high dividend requirements by raising prices to users.

Some issues

Many GBEs remain protected from competition and can thereby exercise some monopoly power which creates scope for governments to use GBEs to meet revenue needs. In some circumstances, the practice could have serious implications for the efficiency of public enterprises. One possible effect is to cause prices to the users of GBE services to be higher than they otherwise need be. This may occur directly through increased prices to meet any excessive dividend requirements or indirectly as a result of increased borrowing by GBEs, running down their asset base and/or postponing new investment in capacity to meet the payments. Alternatively, the ability of enterprises to finance new capital projects from retained earnings may be inhibited, particularly in the presence of restrictions on external borrowings by enterprises. This could result in increased costs because of reduced capacity and flexibility to respond to changing demands.

The absence of competition for many GBEs and the use of financial targets set at inappropriate levels provide incentives for governments to extract excessive dividends. The extent of their success could inhibit moves to structural reform through either competition or by change of ownership.

For these reasons, it is necessary to monitor the extent to which governments improve their revenue raising capacity through GBEs without regard to the effects on users and to consider how the potential for such 'milking' can be reduced.

As noted above, there are specific examples of what appear to be high dividend payments to governments by GBEs. The dividend payout ratio in the energy sector, for example, has been very high at times — over 100 per cent for electricity in 1988–89 and for gas in 1987–88.

However, it is difficult to form judgements as to whether examples of high dividend payments by GBEs can be considered excessive and an abuse of market power. Several factors need to borne in mind before reaching premature conclusions about the significance of such examples.

A high payout ratio may mean little in the absence of information about the financial and economic performance of an enterprise. For example, an enterprise may be paying out a high proportion of its profits in dividends but its real rate of return on assets may be very low because prices are too low and/or costs too high. In such a case, it is the financial and economic performance of the enterprise which is to be questioned rather than its dividend policy.

The average payout ratio in the private sector is substantial. Although similar payout ratios are achieved by some GBEs, the overall picture of the dividend performance of GBEs seems to be one of payout ratios which are too low, rather than too high. As noted above, there are many

Commonwealth and State GBEs which pay very low or no dividends. Also, large losses are incurred regularly by a number of GBEs, particularly in the transport sector, which, in general, are not able to make dividend payments. The available data do not suggest systematic use of GBEs by governments to extract excessive dividend payments.

The increases in dividend payments that have occurred may reflect a move away from past practices of underpricing of services, low or negative rates of return and low or no dividend requirements. Some cases may reflect the normal practice of linking dividend payments to profits in the previous year.

Examples of high dividend payments may also mean little in the light of exemptions from a range of taxes and charges. Many enterprises are not liable for the full range of Commonwealth, State and local government taxes and charges.[4] Some are not required to make payments which reflect actual or imputed government guarantees on major borrowings.[5] Excessive dividend payments could be seen as payments in lieu of these exemptions. Nevertheless, it seems difficult to sustain this argument in relation to income taxes when losses are being incurred by enterprises. This is not to deny the argument in relation to other taxes and charges which are not based on profit levels.

Apart from these considerations, there are arguments both for and against relatively high levels of dividend payments by GBEs. Governments as shareholders can claim that taxpayers should receive appropriate benefits from public ownership of firms. Efficient pricing requires allowance to be made for the true costs of the capital employed. Retained earnings cannot

4 Several States have indicated their intention to implement tax equivalent payments by GBEs. Premiers and Chief Ministers have agreed in principle to apply the full range of government taxes and charges to all commercial GBEs through the creation of tax equivalent payments encompassing both Commonwealth and State taxes (Premiers and Chief Ministers 1991). The Commonwealth and State Governments have agreed to establish a Commonwealth/State working party to explore the scope and mechanisms for the States to consider subjecting their GBEs to Commonwealth income and wholesale sales tax in return for compensation from the Commonwealth (Dawkins 1993).

5 Several GBEs are subject to charges to reflect actual or implicit government guarantees on their borrowings. Commonwealth GBEs are subject to a borrowing levy on outstanding loans at the rate of 0.125 per cent. Some State Governments, including New South Wales, Victoria and Queensland, have legislation which provides for a levy on GBE borrowings to reflect government guarantees on borrowings.

be reflected in an increase in the value of shares on the stock market and sale of equity is not common. The only method for obtaining a benefit from the increased capital value of a GBE is through dividends.

As owner, a government may decide legitimately to seek to reduce its equity in an enterprise. This may be part of a program to reduce the scope of activities of the enterprise and its investment program or to encourage it to take on increased debt to maintain the level of operations. Withdrawal of funds by requiring high dividend payments is one way to reduce equity in an enterprise.

On the other hand, there is the ever-present possibility that short-term considerations such as impending budgetary constraints may lead governments to require excessive dividend payments. Also, GBEs need additional capital to fund investment and must rely to some extent on their retained earnings in the face of unwillingness or inability of governments to provide additional equity capital or access to increased borrowing.

Whatever weight is given to these conflicting considerations in forming judgements, reduced incentives for efficient pricing through the lack of competition provides ongoing opportunities for governments to maintain excessive contributions from GBEs. Financial targets may reinforce the traditional inefficient pricing practices of GBEs, particularly in the absence of competition (Appendix J). Financial targets can serve to support requirements for high dividend payments by GBEs. Indeed, it could be suggested that reform programs for GBEs which focus on administrative reform and financial targets but neglect efficient pricing and the need to promote competition are more likely to lead to taxation of consumers through dividend policies than to improvements in economic efficiency.

GBE reform and dividend policy

Removal or reduction of the incentives for governments to extract excessive dividend and other payments from GBEs can only occur through effective reform of the environment in which GBEs operate. Structural reform of GBEs and focus on efficient pricing provide the main mechanisms to avoid governments using GBEs as 'milch cows'. The practice is not sustainable in the long-term under competitive conditions; or, at worst, no more sustainable than for shareholders in the private sector.

The real difficulty, however, arises in the case of natural monopolies. Creating the potential for competition (by removing barriers to competition, vertical separation, intermodal competition, etc), performance monitoring and regulation provide the main means of avoiding governments using GBEs as 'milch cows'.

Improved performance monitoring and public disclosure of results have a contribution to make.

The actual level of dividend payment in a particular year should be the subject of a recommendation by the board of the GBE to its shareholder, the government, taking into account relevant information on shareholder's funds at current market valuation, past and prospective profitability, proposed levels of capital investment, proposed pricing structures and the associated funding requirements. While there may be room for negotiations between the boards of GBEs and government about the appropriate level of dividends, it is the government, as owner, which should ultimately take the decision. It is a decision for which it should be publicly accountable.

As with private sector companies, the return to the shareholder arises through dividend payments and the potentially realisable increase in the market value of the shareholder's funds arising through retained earnings and capital appreciation of assets. The market value of the shareholder's funds is the overall market value of the enterprise, less the market value of debt in the enterprise. Comparing dividends with the current value of shareholder's funds provides a basis for assessing the adequacy of dividends from a commercial perspective, and in a way which takes into account the amount of the income stream needed to service the debt.

One benchmark from which to assess the outcomes and government decisions is the rate of dividend payment by equivalent-risk private companies, but allowing for the payment of government taxes and charges. But, such a benchmark cannot be absolute. The actual dividends to be declared will depend on the specific financial circumstances and investment outlook of different GBEs, among other factors.

Public scrutiny could be promoted by standardisation between jurisdictions of the definition of dividends and what is classified as dividends as well as by consolidation of the range of payments to government by GBEs on a common basis — according to whether they are dividends, special dividends, taxes or charges. Setting dividend payments on the basis of profit will better ensure that payments more accurately reflect the financial situation of enterprises.

Many GBEs still retain exemptions from several Commonwealth, State and local government taxes and charges. As long as these exemptions remain, dividend policies and other contributions to government will continue to be somewhat difficult to assess. It is difficult to determine if contributions to government are excessive if enterprises are not required to meet taxes and charges expected of private firms or pay an amount which reflects government guarantees on their borrowings. It points to the need to continue to advocate reforms which remove special exemptions and constraints on GBEs which do not apply to private firms.

While exemptions from government taxes and charges remain in place, it is possible to assess the total contribution to government by taking into account taxation equivalent payments as well as dividends. As noted above, several governments now require their GBEs to make taxation equivalent payments. One possible approach is that recently announced by the NSW Government in its new financial distribution policy for GBEs. Under these new arrangements, the total of both dividend payments and taxation equivalents is determined as a proportion of pre-tax profits. Structuring the total pay-out target to government on a pre-tax basis explicitly recognises the government role as both owner and tax collector. It also allows for some consistency in approach between GBEs which pay some government taxes and charges and those which do not. The 50 per cent floor for the pre-tax profit target used in NSW is fairly conservative compared to the average payout ratio on a pre-tax basis for private companies of about 70 per cent during the 1980s.

APPENDIX L
PROGRESS ON MICROECONOMIC REFORM

Since 1989–90, the Commission's Annual Report has included a list of microeconomic reforms undertaken by Commonwealth, State and Territory Governments. This appendix collates the responses from Governments on their microeconomic reform progress in 1992–93.

This appendix is intended as a general overview of the scope and depth of recent reform. The focus is on reforms implemented in 1992–93, as opposed to providing a full measure of net progress in each jurisdiction.

The information is provided by Commonwealth, State and Territory governments in response to a Commission request. Apart from general checks on consistency, however, the extent to which the Commission can verify the nature and extent of the benefits listed is very limited. In some cases, there are likely to be differences of view about the nature and extent of benefits. For example, an amendment to workers' compensation arrangements in one State is listed as a reform, but would appear to be at odds with the Commission's recent draft report on Workers' compensation in Australia.

As in previous years, the material presented has been categorised in the following sections:

- industry-specific reform;
- general reforms;
- labour market reforms;
- environmental management; and
- government business enterprise (GBE) reform.

Some general impressions can be drawn from the responses. Some reform has been innovative and experimental in nature and is indicative of a willingness to extend the reform effort on a broad front. For instance, in the Victorian health sector, casemix-based funding for inpatients at public hospitals has been introduced, whereby hospitals will be paid the same amount for equivalent work, rather than on the basis of historical budgets. The NSW Government has privatised the Gumly Gumly Irrigation District near Wagga Wagga; this represents the first measure of this type to be undertaken in Australia.

Some other general impressions from the categories of reform are:

- Substantial progress has been made in industry-specific reforms through the reduction of assistance and the promotion of competition.
- In the area of general reform, improvements to local government procedures have been implemented in NSW, Queensland, Tasmania and Victoria. These reforms have resulted in increased autonomy for and accountability of local government.
- Labour market reforms have been implemented by all States and Territories, particularly to facilitate the spread of enterprise bargaining. The education system has also been the focus of significant reform, particularly in vocational education and training where student places have been greatly increased.
- Environmental management has concentrated on improved resource management. For instance in NSW, guidelines have been prepared to encourage more innovative and cost-efficient approaches to land drainage.
- In reforming GBEs, some States are promoting reforms which should lead to increased competition. The State Electricity Commission of Victoria is one such example.

Industry-specific reforms

Sector	Jurisdiction	Date	Nature of reform	Significance

Primary industry

Mining and mineral exploration	Tas	1992–93	Declaration of zones of high prospectivity. If the development of mineral reserves identified by exploration is prevented by any change in the land status, the government of the day would be bound to compensate the developer.	To provide industry with the confidence to undertake capital expenditure needed to discover new ore bodies.
	Tas	1992–93	Revocation of a portion of the south-west conservation area and limitation of the depth of national parks to 50 metres in most cases.	Enhances access to an area that although previously available to industry was seen to be difficult to access.
	Qld	completed June 1993	Review of restrictions applying to exploration and/or mining on certain areas of land.	Increase in land available for exploration and/or development.
Mining (health and safety regulation)	Qld	1993	Commencement of Exmark certification licence scheme for explosion protected electrical equipment.	Enhanced safety in the work place, ready identification of safety products and equipment certified for use in areas of hazard. Reduced uncertainty and costs to employers of complying with safety requirements.
Coal mining	Qld	completed May 1993	Review of current coal mining lease conditions to identify restrictive and/or inappropriate conditions in relation to coal mining and sales.	Inappropriate conditions have been identified and amendments to lease conditions are now being negotiated and implemented.

Industry-specific reforms (continued)

Sector	*Jurisdiction*	*Date*	*Nature of reform*	*Significance*
Coal exploration	Qld	1993–94	Removal of restrictive access conditions to land prospective for coal exploration in Central Qld Coal Area. It is intended that 12 areas of known prospectivity will be made available on a competitive basis and that a modified cash bidding system will be used to select the successful applicants.	Allows industry to dictate pace of exploration and development based on commercial considerations.
Agriculture	Tas	1992	Fertiliser Act/Pests, Diseases and Weeds Act introduced streamlined and simpler administrative procedures.	Cost savings and increased productivity for the industries.
Animal quarantine	Tas	1991	Review of animal quarantine procedures to streamline and dismantle older procedures.	Producers have faster access to clean breeding stock while still maintaining disease free status.
Meat and livestock industry	Vic	July 1993	The Victorian Meat Authority replaces the licensing activities of the Abattoir and Meat Inspection Authority. This provides for moves towards self regulation, cost efficient quality assurance programs, and more effective registration and inspection requirements.	Improves efficiency of quality licensing framework and should result in cost savings. More competitive arrangements for service delivery.
	WA	1993	Amendment of the *Meat Marketing Act 1971* and the *Abattoir Act 1909*.	Rationalise government involvement in meat marketing and processing.
	Qld	1992–93	Agreement to splitting of the regulatory, commercial and policy functions of the existing statutory marketing authority into three bodies.	Restructuring will provide each new body with a clearer focus and increased accountability.
			Complete overhaul of complex regulatory arrangements with legislation due by late 1993.	Replacement of prescriptive licensing regime with quality assurance accreditation.

Dairy industry	Qld	1993 ongoing	Total restructuring of industry, including introduction of a scheme to rationalise milk distribution (vendors) sector and termination by December 1998 of post farm-gate market intervention arrangements eg price controls.	A more competitive industry with enhanced prospects for long term viability. Queensland will be brought into line with other States.
	Vic	November 1992	Passage of *Dairy Industry Act 1992* to deregulate and re-structure part of the industry. The VDIA can now enter into joint ventures with private industry.	The *Dairy Industry Act 1992* is a first step in achieving the Government's policy of post farm-gate deregulation of milk pricing.
	WA	1993	Amendment of the *Dairy Industry Act 1973*.	Removal of unnecessary regulation.
	SA	1992–93	New Dairy Industry Act abolishing the Metropolitan Milk Board and creating the Dairy Authority of South Australia. Fixed retail price of milk has been abolished.	A move to reduce regulation of the dairy industry by giving more responsibility to the industry for its own pricing mechanisms and quality control.
Egg industry	Vic	June 1993	The *Egg Industry (Deregulation) Act 1992* provides for deregulation of the Victorian egg industry and the vesting of the property rights and liabilities of the Victorian Egg Marketing Board (VEMB) into an industry cooperative.	Deregulation of the egg industry, promoting competition and benefiting consumers.
	Qld	1993	Restructuring of egg industry organisations to form a single (grower-owned) State-wide marketing body with statutory powers to be phased out by December 1998.	Will deregulate the industry and allow for significant marketing improvements.
Barley industry	Vic	March 1993	New barley marketing legislation allows stockfeed barley to be sold to the Australian Barley Board (ABB) or to private sources; and allows maltsters to source barley through the ABB or deal direct with growers. Prices and terms for these options are freely negotiable.	Provides growers with greater marketing choices. Introduced in line with South Australia.

Industry-specific reforms (continued)

Sector	*Jurisdiction*	*Date*	*Nature of reform*	*Significance*
	SA	1992–93	Amendment to Barley Marketing Act. The new Act establishes a consultative Committee to provide grass root advice to the Australian Barley Board.	Provides for elements of domestic competition whereby barley processors are able to more readily source grain direct from producers.
Potatoes	WA	1993	Amendment of the *Marketing of Potatoes Act 1946.*	Move towards eventual commercialisation of the activities of the Potato Marketing Authority.
Navy bean industry	Qld	1993	Removal of statutory powers of the Navy Bean Marketing Board including power of compulsory acquisition, and grower-owned co-operative association.	Will deregulate the industry and allow for significant marketing improvements.
Fisheries	WA	1993	Legislation to enable the Fisheries Department to manage the State's fisheries into the next century.	Safeguard the resources of the State's fisheries and improve the performance of marine based industries.
	NSW	1992–93	Implementation of Fisheries management plans comprising of property rights to ensure sustainable fisheries while improving economic viability of the industry.	Encourages greater operational efficiency within the fisheries.
	Vic	June 1993	Introduced new process for setting seasonal catch rates for the scallop industry.	More flexible use of the resource.
Forestry	Tas	1993–94	The establishment of a new Forestry Corporation of Tasmania as a statutory authority.	Potential productivity gains through commercial focus and increased financial return to Tasmanian stakeholders.
	Tas	1993–94	Establishment of crown softwood resources.	Greater potential gains in productivity through commercialisation and the concentration of softwood resources to new entrants.

	Tas	November 1992	Increased access to crown sawlog resource on a competitive tender basis.	Establishes access of a significant amount of crown sawlog resource to new entrants.
	Tas	July 1992	Increase in product differentiation between pruned and unpruned sawlogs.	Allows market to decide the quality and price combination to select rather than accepting the average royalty rates.
	Tas	1992	New and more commercial contracts between Tasmanian Forestry Commission and Tasmanian sawmillers.	Increases the interstate and international competitiveness of Tasmanian sawmillers.

Services — transport

National road charging and regulatory system	Joint	August 1992	The National Road Transport Commission released its first determination that was subsequently approved by majority vote of the Ministerial Council for Road Transport for full implementation by 1995.	Movement towards user-pays charging and uniformity of regulations for heavy vehicles should avoid the costly duplication of separate regulations for each State and Territory and should lower input cost to industry.
Transport	ACT	ongoing	ACT/Commonwealth agreement to permit ACT legislative process to act as catalyst for development of national legislation and charging regimes.	Allows national legislation to be instituted without infringing on States' rights issues.
Roads	C'wealth	December 1993	The Commonwealth will assume funding responsibility for the National Highway System (NHS) — to consist of existing systems plus Sturt and Newell and link roads in capital cities. Other Commonwealth road programs will end.	Establishment of a clearly defined NHS and rationalising the role of each level of government will remove overlapping and confusing road funding responsibilities; and improve government accountability.

Industry-specific reforms (continued)

Sector	*Jurisdiction*	*Date*	*Nature of reform*	*Significance*
	Vic	February 1993	Introduction of permits for use of longer semi-trailers (Increased from 12.5 to 13.7m).	Increases carrying capacity and efficiency.
	Vic	January 1993	Introduced permits for longer vehicle combinations (up to 19m).	Allows use of vehicles with better stability, driver ride and crash protection.
	Vic	May 1993	Introduction of a General Permit for 4.6m high livestock vehicles, expanding the network of routes available to the industry.	Increases efficiency.
	Vic	May 1993	Permits introduced for step-deck semi-trailers to carry hay bales up to an overall height of 4.6m on high livestock routes.	Efficiency improvements of 50 per cent.
	Vic	December 1993	A standard 12.5m long semi-trailer permitted at rear of B-doubles.	Greater fleet flexibility and productivity.
	Qld	ongoing since 1992–93	Establishment of a Road Reform program to achieve productivity improvements in Commonwealth and State funded projects, through greater competition in tendering and sound prioritisation of projects.	Efficiency gains of around $50 million realised in 1992–93. Efficiency gains of $150 million targeted by the end of 1995 (equivalent to 20 per cent of 1992–93 works program).
	Tas	April 1993	Increase in maximum height limits (between 0.2m to 4.5m) for vehicles over an appropriate network of routes.	Easing of regulations.
	NT	ongoing	Phasing out of day labour for construction or maintenance.	By 1994–95 it is anticipated that the day labour force for the Department of Transport and Works will have been phased out and that all road maintenance will be undertaken by contractors.

Road freight	NSW	July 1992	Improved road access for high productivity trucks. Trial extension of routes for road train operations in Western NSW. Provides an additional 3800km of routes for road trains.	Increased productivity for the road freight industry.
	NSW	1992–93	Roads and Traffic Authority has identified and published maps of approved routes for road trains and B-doubles.	Increased industry productivity.
Road construction	Tas	ongoing	Road network development.	The streamlining of the Government's road construction resources, the partial untying of State road works and the successful move to a project management approach in the Transport Infrastructure Program of the Department of Transport and Works.
	Vic	1992–93	Introduction of innovative approaches to contracting including 'partnering'(working with contractors) and 'design and construct' which allows tenderers to work with designs which best suit their methods and materials.	Provides cost savings and greater flexibility; reduces disputation between client and contractor.
School bus system	Tas	1993–94	Provision of school bus services.	The development of a process to rationalise services and establish an environment to upgrade bus standards and service levels.

Industry-specific reforms (continued)

Sector	*Jurisdiction*	*Date*	*Nature of reform*	*Significance*
Aviation	C'wealth	1992–93	• The International Air Services Commission was established to allocate rights to Australian airlines to fly international routes. • In-principle agreement between Australia and New Zealand to establish a single trans-Tasman aviation market. • The introduction of multiple designation of Australian airlines on trans-Tasman route and the operation of these flights from domestic terminals. • Carriage of domestic passengers by Qantas.	Multiple designation on overseas routes will introduce greater competition. Ansett, for example, has been allocated rights to fly international services to Malaysia, Indonesia, Singapore and New Zealand.
Intrastate aviation	NSW	May 1993	Approval given for the simultaneous deregulation of air services on the expiry of existing licences in 1996.	Introduction of greater competition into the industry. Greater choice of flights, departure times and fares.
Ports	SA	January 1993	Department of Marine and Harbours introduced stage 2 of its new charge structure based on types of services provided.	Removes cross-subsidies between services and links charges to costs of services.
Intrastate ferry services	SA	1992–93	Performance-based subsidy agreement established for the operator of the Government sponsored 'Island Seaway' ferry with inbuilt performance incentives for 2 years to June 1994.	Reduced Government subsidy level.
Marine	Vic	May 1993	Length of vessel not requiring compulsory pilotage extended from 30m to 35m and above.	Reduction in costs to vessel operators.
Rail transport	Tas	July 1993	Removal of fees payable by road based operators when competing with rail. Phased out July 1993 to July 1995.	Removal of artificial barriers.

Public transport	Vic	May 1993	First step in implementing automatic fare collection (AFC) with evaluation of tenders for the provision of automatic ticketing systems for metropolitan train, tram and bus services.	Reduces operating costs for the Public Transport Corporation (PTC) and boosts revenue by reducing fare evasion.
	Vic	March 1993	Introduction of Driver Only Operation of trams after 8.00pm Monday to Friday and at weekends on certain routes.	Cost savings and productivity improvements. The Driver Only Operation program will be implemented with the introduction of AFC.
	Vic	May 1993	Introduction of Driver Only Operation of suburban and country trains. The expected completion date is the end of 1996–97.	Reduction of operating costs for all train services. Introduces best practice work arrangements.
	Vic	April 1993	The country passenger services network structure has been altered with the replacement of some publicly provided train services by privately operated coach and rail services.	Increased private sector involvement and efficiency in public transport provision. Significantly reduces government infrastructure asset requirements for rolling stock, track, signalling, structures and land.
	SA	1993	Expansion of local community transport as part of the reform of metro urban public transport.	Initiative allowed local councils and community organisations to tailor community transport services to their needs and enable restructuring of metro mass transit services.
	SA	1992–93	Development of integrated transport/urban development strategic plans at a regional level in the context of the Metropolitan Planning Strategy.	Achievement of true integration of strategic plans for transport and urban and economic development at a regional level.

Industry-specific reforms (continued)

Services — general

Sector	*Jurisdiction*	*Date*	*Nature of reform*	*Significance*
Electricity distribution	NSW	July 1993	The *Electricity (Amendment) Act 1993* consolidated legislative provisions for the electricity supply industry into one Act and to a single administration (Minister for Energy).	The Act promotes the safe and efficient use of electricity. Minimises legislative and administrative requirements.
Electricity council	NSW	1992–93	Standardisation and rationalisation of electricity supply industry policies, procedures and practices including: technical specifications of equipment, saving the industry $9 million — and adoption of Quality Assurance guidelines by suppliers of services and materials to electricity distributors.	Guaranteed levels of quality for suppliers of services and materials.
Shop trading hours	Vic	November 1992	Passage of *Capital City Shop Trading Act 1992* provides unrestricted trading for shops in Melbourne's central business district and Southbank.	Liberalisation of retail trading provides benefits to the community, retailers and the tourism industry.
Building	NSW	ongoing	The NSW Government is using its purchasing power to implement reforms through codes of practice covering industrial relations, work practices, contract administration and tendering.	Greater certainty to the industry resulting from a consistent approach. Expected longer term savings in building costs as a result.
	Tas	1993	Legislation enabling implementation of the Building Code of Australia.	Uniform building controls will be adopted through the Building Code of Australia.
Construction	Qld	August 1992	Introduction of a Tenderer's Register for State Government building construction contracts.	Pre-registration of tenders will reduce Government exposure to risk of non-performance by contractors.

	Qld	1993	Introduction of the *Mixed Use Development Act 1993* which represents a new code for development, subdivision and management.	Planning approaches can be tailored for each project, there will be an increase in the use of shared facilities and project financing will be easier.
Crushed stone	Vic	1992–93	Self regulation in the crushed stone and ready mixed concrete industry.	Reduction in delays and compliance costs for industry and decreases in costs for the Roads Corporation through less direct enforcement.
Legal services	NSW	1992–93	Introduction of the *Conveyancers Licensing Act 1992* allows licensing of non-legally qualified but competent conveyancers, in addition to solicitors who previously monopolised conveyancing services. Formally takes effect on 1 July 1993.	Promote greater competition in the conveyancing market. Encourage greater efficiency and a lowering of costs and fees.
Water and sewerage provision	NSW	ongoing	Public Works has issued asset management guidelines for water supply and sewerage schemes.	Improved overall performance by councils resulting in lower costs of services to customers and reduced need for government assistance.
Public housing	Tas	December 1992	Closure of Department of Construction division for building construction and maintenance. Move to 100 per cent construction and maintenance by private sector through open tendering.	20 per cent reduction in house unit construction price, up to 15 per cent reduction in recently let maintenance contract price schedules.
Housing	NSW	July 1993	Landcom, the Government's land development and land banking agency, to be folded into the NSW Property Services Group and operate on a more commercial basis.	Improved efficiency of operations.
Health services	ACT	by 1996	Consolidation of two hospitals onto one site. There is now a two Public Hospital System comprising one principal hospital and one community-based hospital.	Reduced overheads and eliminated some duplication by improved utilisation of infrastructure.

Industry-specific reforms (continued)

Sector	*Jurisdiction*	*Date*	*Nature of reform*	*Significance*
	ACT	ongoing	To change the mix of hospital occasions of service from emphasis on overnight care to day-only service.	Target of 36 per cent of all surgical admissions are day only, rising to a target of 40 per cent in 1995–96. Improved utilisation of beds contributing towards length of stay reduction.
	Vic	July 1993	Introduction of casemix based funding for inpatients at public hospitals, whereby hospitals will be paid the same amount for equivalent work, rather than on the basis of historical budgets.	System rewards lower cost hospitals and gives incentive for additional throughput.
	Tas	ongoing	Continued rationalisation of public sector aged care nursing home beds including transfer of facilities to the private sector.	Provision by private sector recognising Commonwealth-private sector services funding and provision models, allowing cessation of quasi-hospital bed provision. State resources redirected to the community-based sector.
	Tas	Ongoing	Continued implementation of community integration in Disability Services and Mental Health programs.	Achievement of quality of life improvement, while pursuing reduced direct service provision by the Department. Funding through community organisations with service agreements involving clear output and outcome standards.
	Tas	June 1993	Contract with North-west private hospital for the provision of public patient maternity services.	Rationalise provision of public patient services in a community with maternity case rate too low to sustain private and public facilities. Avoidance of major capital cost and operational overheads by negotiated fee-for-service based on DRGs.

Education	Vic	December 1992	Introduction of contract cleaning in government schools.	Improved efficiency and effectiveness in school cleaning at a significantly reduced cost. Savings used to provide additional tertiary places.
Community services	Vic	July 1993	Kindergartens to be funded on per child basis rather than payment of teacher salary.	Promotes more flexibility in use of teachers, buildings and other resources.
	Vic	July 1993	Funding of maternal and child health centres to be based on 10 key outcomes in early childhood development rather than salary subsidy.	Enables flexibility in how service is to be provided.

General reforms

Sector	*Jurisdiction*	*Date*	*Nature of reform*	*Significance*
Mutual recognition of standards and regulations	Joint	March 1993	The *Commonwealth Mutual Recognition Act 1992* commenced. Introduction of mutual recognition in Qld, NSW, NT, Vic and ACT. Legislation passed in SA and Tas.	Increased competition between States leading to lower prices for consumers and lower costs to business. Lowers red tape and compliance costs. Also encourages competition between regulatory regimes as operators may relocate to the most efficiently regulated State.
Small business licensing databases	C'wealth	May 1993	Integration of business licensing databases in all States and Territories.	Improves access to licensing information and thereby assists new business starters as well as avoiding duplication, overlap and inconsistencies of information and resources.
Business licence centre	WA	June 1993	The Business Licence Centre is a 'one stop' source for information on State and Commonwealth business licensing and regulation.	An effective one stop service for business.
	SA	May 1993	Establishment of a Business Licence Information Centre and abolition of a number of licences.	Improved provision of licensing information to business and a decrease in industry costs associated with regulation.
Business regulation review	ACT	June 1993	ACT Government prepared a Territory Plan, which consolidates 1100 former planning policies within a single framework of planning control.	Plan allows Territory planning policy and controls to be more easily understood and accessible.
Planning	NSW	1992–93	Amendments to planning legislation have introduced: a more integrated planning and building approvals system; provisions which allow 'in principle' consent; and authority to grant staged development consent.	Reform of the planning system allows for greater flexibility in determining applications, and increased responsiveness to worthwhile development proposals.

Urban planning	SA	1993	New Development Act passed by Parliament. A monitoring unit established to ensure that the changes deliver speedier, more certain results.	The Act will provide for speeding up the approvals process while ensuring more certainty.
	Tas	1993	Legislative provision for greater responsibility for Local Government in conjunction with the establishment of the Sustainable Development Advisory Council and the Land Use Planning Review Panel.	Enhanced strategic planning and coordination between State and Local Government.
Regulatory reform – subordinate legislation	Tas	1992–93	*Subordinate Legislation Act 1992* will repeal all existing subordinate legislation over a period of eight years and establish a ten year sunset clause on all new subordinate legislation.	Removal of unnecessary and counter-productive subordinate legislation. Benefit-cost assessment of proposed subordinate legislation and alternative proposals. Introduces formal public consultation procedures.
Local government	NSW	1992–93	*Local Government Act 1993* signifies an overhaul of the management and administrative practices by local government and makes them more accountable to the community. Councils are required to produce financial, management, reporting and performance targets.	Enable the community to evaluate the performance of their councils.
	NSW	1992–93	*Local Government Act 1993* introduces a single approval system which will enable the integration of a large number of approvals; and an order system which will become standardised.	The single approval and orders system streamlines regulatory activities. It makes the system simpler, more flexible and encourages more efficient administration processes.
	NSW	1992–93	Local governments are being commercialised. This involves the introduction of accrual accounting, user charging principles, setting of performance targets and monitoring of progress toward objectives.	Adoption of commercial principles lays the foundation for improving efficiency and increasing the return on investment to the NSW Government. Prices of services will more closely reflect costs.

General reforms (continued)

Sector	*Jurisdiction*	*Date*	*Nature of reform*	*Significance*
	Qld	1992–93	Establishment of regional planning frameworks in south east Qld and far north Qld to manage growth in these areas.	Increased co-ordination between levels of government and efficiencies realised in infrastructure servicing to growing communities.
	Tas	1993	Local Government Modernisation — reduction of Local Government municipalities from 46 to 29.	Greater efficiencies in resource management and increased autonomy and accountability for Local Government.
	Vic	June 1993	Introduction of the *Local Government (General Amendment) Act 1993* establishes the Local Government Board, and sets out a new framework for examining and developing proposals for boundary reform.	Through the Board, councils will be able to advise on ways to improve the efficiency and effectiveness of the local government system.
	Vic	1993	The *City of Greater Geelong Act 1993* amalgamates six Councils to form the City of Greater Geelong.	The new structure will provide considerable savings to ratepayers.
	NSW	1993	Deregulation of council requirements on the operation of certain businesses such as hairdressers and boarding homes. Standards to be enforced under the orders system.	Abolition of certain regulations while council standards are maintained.
Government budget sector	NSW	June 1993	Clarification of the financial and accounting requirements for Budget Sector Departments. Introduction of consistent cash budgeting and accrual accounting, and monitoring procedures.	Aims to provide better value for the taxpayer's dollar; to provide better quality and more responsive services; and to provide better consumer responsive information to public sector managers, Parliament and the Government.

Financial distribution policy	NSW	August 1992	As part of the commercialisation or corporatisation process, GTEs are progressively being subject to payments of: target returns on equity; target returns on total assets; a pre-tax profit distribution; government guarantee fees; and interest payment of outstanding debt.	Improve efficiency of GTEs by exposure to financial distribution conditions similar to those experienced in the private sector. Increases the transparency of the opportunity cost for the NSW Government in employing capital in government businesses.
Monitoring policy	NSW	October 1992	Improved financial management of GTEs through the preparation of quarterly reports. Certain ratios are compared to 'benchmarks'.	Informs NSW Governments as shareholder/owner on the financial health of a GTE; its ability to repay debt; provides an assessment of risk-adjusted returns on investment; and potential financial distributions to the Government.
Public infrastructure	SA	May 1993	Guidelines for private sector provision of public infrastructure release.	Aimed at encouraging private sector involvement in the State's infrastructure, reducing costs and improving quality of infrastructure.
Government pricing tribunal	NSW	1992–93	Provisional Pricing Tribunal advice on prices in 1992–93 facilitated the following changes: real electricity price decrease for non-residential sector of 4.1 per cent and a real price increase for the residential sector of 1.5 per cent; and real water price decrease by the Sydney Water Board of 1.1 per cent for the non-residential sector and a real price increase of 2.9 per cent for the residential sector.	Changes in prices reflect a deliberate movement towards the removal of cross subsidies from the commercial sector to the residential sector.

General reforms (continued)

Sector	*Jurisdiction*	*Date*	*Nature of reform*	*Significance*
Government services	ACT	July 1992	Establishment of ACT Asset Management Service combining roads and building maintenance — central provider of maintenance services to ACT Government agencies on fee-for-service basis. Devolution of previous budget funding to clients.	Efficiency gains through more accurate cost attribution, accurate reporting, and clients' ability to make informed decisions on level and scope of services.
	ACT	February 1993, ongoing	Drawing together of emergency response agencies and revision of emergency management planning and operations.	Efficiency gains through concentration on potential hazard and risk and on emergency management rather than on support services and minimisation of overhead costs.
	ACT	November 1993 & May 1993	Introduction of tip charges for industrial and commercial waste and trialing of wheeled bins for kerbside collection of recyclable material.	Encourage waste minimisation and recycling and a more sustainable use of resources, and reduce costs of waste disposal.
Government	Qld	July 1993	Conversion of all Crown land rentals to an unimproved capital value basis and striking commercial rental levels.	Rents and therefore land values will more closely reflect market forces.
	Qld	1993	Development of a single integrated development approval system to streamline and expedite the approvals process and establishment of the Office of the Co-ordinator General as a first point of contact for proponents of economic development projects requiring State Government consideration.	Reduction in delays in gaining approval for projects to proceed and some rationalisation of functions between different levels of Government.
Government business units	Qld	1992–93	Introduction of a user-pays regime in the supply of government services to other departments and the private sector and rationalisation of infrastructure and staffing.	Increases service quality, and productivity, more competitive pricing policies and efficient use of existing infrastructure and resources.

State purchasing policy	Qld	June 1993	Modification of the Quality Policy which forms part of the overall State Purchasing Policy, whereby suppliers of goods and services to Government Agencies are expected to meet an externally rated quality management system.	Will assist in increasing local quality standards to international levels.
Public sector	SA	1992–93	Commencement of a restructuring program involving a reduction in the number of operational agencies from 30 to 12.	The move will deliver benefits including: reduction in overlap and duplication of functions; increase in inter-departmental cooperation; streamlining of the decision making process; greater flexibility in portfolio operations; and economies of scale in corporate services, IT and support service generally.
Trade practices	C'wealth	January 1993	Amendments to the Trade Practices Act.	Prohibits mergers or acquisitions which substantially lessen competition; introduces compulsory pre-merger notification; increases penalties; and provides for the enforceability of undertakings to the TPC.
Occupational health and safety (OH&S)	Joint	May 1992	Heads of Government have agreed to develop national uniform standards for (OH&S) and dangerous goods.	Lower costs for nationwide companies with plants in several States; will improve (OH&S) and decrease industrial accidents and costs and thereby positively affect productivity.
Major projects	C'wealth	February 1992	Establishment of the Major Project Facilitation Unit (MPFU). The MPFU facilitates the administrative and regulatory decisions on major projects typically involving investments in Australia in excess of $50 million.	Improvements to the efficiency of the project approval process. Reform attempts to ensure that commercially viable progress through Government approval regimes without delay.

General reforms (continued)

Sector	*Jurisdiction*	*Date*	*Nature of reform*	*Significance*
Co-operatives	NSW	1992–93	The *Co-operatives Act 1992* introduced a single category for registering co-operatives; provided for interstate co-operative mergers; removed application of the *ultra vires* doctrine; and required a clearer statement of accountability for directors.	Allows a more flexible and commercial approach to operating co-operatives. Brings the operations of co-operatives closer into line with private companies.
Asset management	NSW	ongoing	Development and use of the Total Asset Management (TAM) guidelines to manage public infrastructure. TAM replaces the 'build' mentality with an approach that uses and maintains existing assets better; manages demand for assets; seeks performance at a lower cost; and provides for disposal of surplus assets.	TAM introduces a better system to manage infrastructure and improve the efficiency of past and future investment. Other States are using the NSW initiative as a model.
Land administration legislation	WA	1993	Legislation to modernise current procedures, reduce administration costs, provide solutions to existing problems and facilitate development of land in new and innovative ways.	Reduce administration time and costs with subsequent savings to business and government.
Tax	WA	1993	Procedures have been put in place to provide 'Unimproved Values' for the whole State annually for the adoption by the Commissioner of State Taxation for Land Tax purposes.	Ameliorate the problems of landowners who, in the past, have faced inordinately large increases in their land tax bills as property prices have increased.
	NSW	September 1992	Extension of the special 3x3 road funding program for a further three years. This fuel levy is expected to raise $645 million and is to be fully hypothecated to roads.	The 3x3 levy is a tax that specifically targets users.
	Vic	December 1992	Abolition of stamp duty on debenture issues of less than $10 million by finance companies.	Removes arbitrary discrimination between debentures of less than $10 million and others. Brings Victoria into line with NSW.

Building control	NT	September 1993	Transfer of statutory responsibility for the control of buildings from government to private sector certifiers on user-pays basis.	Cost saving to Government of approximately $1 million per annum.
Superannuation	NSW	1993	NSW has introduced a fully-funded portable, accumulation scheme for State public servants called First State Super.	Contain recurrent superannuation costs and (reduce) unfunded liabilities. Savings estimated in excess of $7 billion.
Architects	Vic	June 1993	Introduction of new Architects Regulations.	Simplification of administrative arrangements for regulation of profession and facilitation of commercial operations.
Information technology	Vic	ongoing	Establishment of an Office of Geographic Data Co-ordination to introduce standard planning and coordinate activities across the State.	Linking dispersed systems will allow exchange of data between agencies resulting in improved efficiency, costs savings, and better information.
Communications	Vic	ongoing	Implementation of shared trunked mobile radio networks covering the State for the use by Victorian public sector agencies, particularly the emergency services.	Leads to more effective resource management and substantial cost savings as this replaces current arrangements under which there are over 30 separate networks.

Labour market reforms

Sector	Jurisdiction	Date	Nature of reform	Significance
Enterprise bargaining	C'wealth	July 1993	*Industrial Relations Legislation Amendment Act No 109 of 1992* proclaimed.	Increased productivity; more flexible workplaces; co-operation and a shared view of firms' interests at the workplace level; improvements in quality and/or lower prices.
	NSW	July 1992	Registration of an enterprise agreement between staff of the NSW Adult Migrant English Service and the NSW Government. The enterprise agreement has resulted in the staff receiving salary increases, a more flexible program of professional development, and new conditions of annual leave and hours of duty.	This was the first registered public service enterprise agreement. It signified a more flexible approach to the establishment of working conditions.
	NSW	April 1993	Release of NSW Government guidelines for enterprise bargaining arrangements in the public sector.	Assist the progress of enterprise bargaining by implementing a standardised framework for negotiation at an organisational level.
	NSW	1992–93	Establishment of one enterprise agreement within the treasury group of Pacific Power.	Improved and flexible working arrangements to increase organisation efficiency.
	Tas	1993	Passed revised industrial relations legislation.	Facilitates enterprise bargaining.
	Vic	November 1992	Introduction of the *Employee Relations Act 1992* to abolish State awards and introduce a framework for the preparation of individual and collective employment agreements.	Provides improved flexibility in the labour market through an enterprise based bargaining system.
	Vic	November 1992	Introduction of the *Public Sector Management Act 1992* consistent with the framework established by the *Employee Relations Act 1992*.	Frees up public sector employment, establishing a more flexible industrial framework and introducing management reforms for the Executive group.

ACT	1992–94	ACT Government unions have agreed on a model of enterprise bargaining similar to that adopted by the Commonwealth.	Measures to achieve productivity increases set out in the Agreement include a range of sector-wide reform measures which are immediately available.
NSW	ongoing	Commenced consolidation of the present 60 industrial instruments into 5 enterprise agreements. Some agreements were ratified in March 1993.	Agreements link pay increases to the Department's performance management system.
Vic	1992–93	The Port of Melbourne Authority has reduced the number of workforce awards and agreements for its workforce from 28 to 3 and enterprise-based agreements are progressively being introduced.	Increased workforce flexibility, the removal of skill demarcations and greater multiskilling. Cost savings to the organisation.
Qld	December 1992	Amendment to Industrial Relations Act to facilitate reform of the labour market, rationalisation of union coverage and union amalgamation for all industry sectors where there is State award coverage.	Facilitation of enterprise/workplace bargaining. Allow industrial parties to use the certified agreement provisions in conjunction with union rationalisation provisions, to seek and gain a single union site enterprise agreement.
SA	1992–93	Enterprise-based agreement implemented for the Island Seaway.	Full-time stevedoring labour reduced by 50 per cent.
SA	October 1992	Enterprise agreement to provide for the employment of part-time bus operators by the State Transport Authority.	Improved labour productivity.

Labour market reforms (continued)

Sector	*Jurisdiction*	*Date*	*Nature of reform*	*Significance*
	SA	August 1992	State Transport Authority enterprise bargaining agreements for rail, bus, metals and salaried sectors. Includes provision for: revised sick leave arrangements; revised working hours; and agreement to implement outcomes of functional/organisational review.	Improved cost efficiency, coupled with new service provisions.
	NT	December 1992	The Darwin Port Authority Enterprise Agreement came into effect.	Part of the reform effort which has led to reduced manning levels and quicker turnaround of vessels.
	Vic	1992–93	The Gas and Fuel Corporation of Victoria (GFCV) has undertaken enterprise bargaining at business unit level to negotiate productivity improvements.	Facilitates the development of productivity agreements that reflect specific business needs.
Vocational education and training	C'wealth	July 1992	The Commonwealth and State and Territory Governments agreed to the introduction of a new national vocational education and training system.	A more skilled workforce through an expansion of the number of training places. Greater efficiency in the use of public sector training resources through a better co-ordinated approach.
	Vic	1992–93	Registration of over 200 private providers. Funding of public training through private providers (enterprises, industry, commercial) for $3.3 million in 1993.	Efficiency and quality gains from greater competition. Wider range/diversity of providers for public funds and greater choice for consumers.
	Vic	1992–93	Profile funding model adopted which funds colleges in relation to the average actual cost of delivery rather than on historical base.	Greater efficiency; sets benchmarking; greater output for dollars.

C'wealth	July 1992	Provide $43.6 million over three years to develop infrastructure essential to underpin the changeover to a new system of entry level training, the Australian Vocational Certificate Training system.	A more skilled workforce by allowing training programs to be more closely tailored to the individual. Greater efficiency in the use of public sector training resources. Accreditation will guarantee that skills acquired will be widely recognised and transferable.
NSW	ongoing	The Vocational Education and Training Board accredits and authorises other persons and bodies to accredit vocational courses, allowing greater competition in a market dominated by TAFE. Application of the user-pays principle minimises the cost of training to the taxpayer.	Greater competition in the training market ensures that the quality of training is improved at minimum cost to the taxpayer. In 1992–93, 153 courses and training programs were accredited by VETAB.
Qld	January 1993	Introduction of the Vocational Education and Training (Industry Placement) Act which allows students to undertake both paid and unpaid training on-the-job which reinforces college courses.	The legislation will increase opportunities for young people to gain work experience.
Vic	May 1992	Legislation to provide for TAFE Colleges to employ their own teaching staff from 1 July 1993.	Together with the Employee Relations Act, presents College Councils with greater independence and a significant opportunity to achieve workplace reform.
Vic	1992–93	Ongoing implementation of the National Framework for the Recognition of Training which covers course accreditation, provider registration, recognition of prior learning and assessment.	Training is more relevant to the needs of industry and individuals and is recognised nationally. Facilitates competition between private and public sector training providers.

Labour market reforms (continued)

Sector	*Jurisdiction*	*Date*	*Nature of reform*	*Significance*
	Tas	1992–93	Development and implementation of a program and sub-program structure for training delivery that focuses on industry sectors.	Encourages allocation of resources for training based mainly on current and projected priorities between and within industry sectors rather than enrolment trends.
	SA	1993	Establishment of the South Australian Vocational Education Employment and Training Authority.	Vocational education and training activities more responsive to the requirements of industry, commerce and community.
Community services and health industry	ACT	January 1993	Establishment of the Community Services and Health Industry Training Advisory Board tasked with developing strategic training systems for industry. (In context of National Training Reform Agenda).	Analyse and address the changing training requirements of industry. In child care, likely greater recognition of on-the-job training and improved service and reduced costs to clients.
Industry training	Qld	July 1992	Implementation of changes to structured training arrangements to make the system more efficient and responsive to clients and industry needs. (In line with National Training Reform Agenda).	The changes will enable the development of a more flexible training structure, industry specific training arrangements and a competitive training market.
	NT	January 1993	Establishment of a holistic training environment including allied health professionals.	Aim to improve staff retention, awareness of other professional concerns, professional support for trainers and improved efficiency.
Service industries, manufacturing and resource industries	Qld	ongoing	Competency Based Training (CBT).	CBT will help promote recognition of prior learning, identify key generic competencies to facilitate award restructuring and removal of demarcation barriers, and lead to ultimate increases in productivity and savings to government.

Construction	Qld	1992–93	Establishment of the Housing Industry Trade Training Program to provide employment and training opportunities to 200 apprentices working on the construction and maintenance of public housing.	A doubling in the number of projects allocated for construction by group training schemes without any loss of public housing production volume.
Performance management	NSW	May 1993	Department of Mineral Resources has developed a performance management system for non-SES staff. A pilot system commenced July 1993.	Expected increase in productivity and motivation of staff. Provide feedback on worker performance.
	ACT	1993	Implementation of Senior Officers Performance Pay Arrangements in ACT Electricity and Water Authority.	Improved labour performance measurement and assessment to improve labour productivity.
	NT	July 1993	Replacement of employment legislation with modern, streamlined legislative provision.	Decentralisation of authority within the Public Sector. Improved efficiency and service delivery.
	SA	1992–93	Establishment of Office of Public Sector Reform to pursue opportunities for greater public sector efficiency and effectiveness.	Simplification and streamlining of public sector structures increased service quality and more skilled and flexible workforce.
Staff development	NSW	1993	Pacific Power has extended the Performance and Development Program to all employees.	Enables clearly defined individual roles and responsibilities to be aligned to business units and corporate objectives.
Best practices demonstration program	C'wealth	August 1992	Second round of grants announced.	Aimed at accelerating the introduction and dissemination of a new workplace culture based on international best practice.

Labour market reforms (continued)

Sector	*Jurisdiction*	*Date*	*Nature of reform*	*Significance*
Migrant English language training	C'wealth	January 1993	Changes to provision of English as a second language (ESL) tuition to migrants.	Increase the efficiency of ESL tuition by opening to competition. Provides incentives for migrants to make best use of tuition through introduction of charges for a previously free service.
Road corporation	Vic	1992–93	Under Structural Efficiency Principles, work redesign was undertaken to professional, technical, administrative and trade areas of the Roads Corporation.	Implementation of multi-skilling and skills based work systems enhances employee flexibility and employee job satisfaction.
Award restructuring	NSW	ongoing	State Transit Authority introduced changes to award provisions for Newcastle bus operations. Changes have resulted in more effective rostering and the introduction of part-time work.	Reduction in staff numbers by 110. Annual savings estimated at $4.3 million.
	NT	August 1992	Establishment of a career structure for medical officers.	Designed to improve staff retention, mobility, recruitment and efficiency.
	NT	ongoing	Remove staffing classification barriers within the Hotel Services Sections of hospitals.	Designed to improve staff retention, career advancement, job satisfaction and efficiency.
	SA	December 1992	New Port Services Award ratified for the Departments of Marine and Harbours.	Simplified classification structures and improved flexibility through multi-skilling.
	NSW	1992–93	Introduction of a new award for local government employees with increased emphasis on training and multi-skilling.	Introduces greater flexibility into local government employment.
Multi-skilling	NSW	1992–93	Pacific Power has implemented broadbanding and multi-skilling to improve work team efficiency.	Multi-skilling improves skills and work practices resulting in efficiency gains. Staff numbers have fallen by 8 per cent.

Electricity distribution industry	NSW	ongoing	Ongoing labour programs in the electricity distribution industry include award restructuring, multi-skilling, and Total Quality initiatives.	Improved productivity performance. Number employed has fallen from 13 707 to 13 175 in 1992-93.
Electricity supply industry	Qld	1992 ongoing	Award restructuring and enterprise bargaining undertaken across the industry (12 awards and 1 Industrial Agreement consolidated).	Increased flexibility of workforce mix (especially contractors).
Salary restructuring	NSW	ongoing	State Transit Authority abolished divisional offices and a new multi-skilled salaried position implemented in business units.	Improved work practices and the reduction of about 100 positions during the year.
Work practices	NSW	1993	The *Local Government Act 1993* provided for a shift to performance based employment contracts for senior staff.	Improve work practices and increase flexibility in support of increased productivity.
Mining hours	NSW	June 1993	Amendment to the *Mines Inspection Act 1901* freeing hours of work for underground non-coal mines and allowing for site-by-site determination of work arrangements.	Productivity gains are expected.
Construction	Qld	July 1992	Introduction of the *Building and Construction Industry (Portable Long Service Leave) Act.*	Equity for Qld building and construction industry employees with other States. Increased flexibility in the building industry labour market.
Meat industry	Tas	1991	Transfer of inspection services for meat hygiene from the Commonwealth to the State. Introduction of Australian Quality Assurance schemes at meatworks.	Significant cost reductions in inspection to the industry. Re-skilling of the labour force. Strong move to self-regulation by the industry.

Labour market reforms (continued)

Sector	*Jurisdiction*	*Date*	*Nature of reform*	*Significance*
Workers' compensation	Vic	November 1992	*Accident Compensation (WorkCover) Act 1992* introduces a changed definition of compensable injury, a greater emphasis on rehabilitation and return to work, simplification of dispute resolution process and changes to benefits.	Reduction of costs to industry and improved return to work rates, enhancing industry competitiveness. As at 31 March 1993 unfunded liabilities have been reduced by over $1300 million.
	Vic	June 1993	*Accident Compensation (WorkCover Insurance) Act 1993* made further reforms aimed at partial privatisation of WorkCover. Employers to be liable for workers' compensation costs and required to insure against the liability. Introduction of experience-based premium system resulting in a direct relationship between an employers' premium and cost of claims.	Elimination of cross-subsidisation and premium volatility. In 1993–94, 80 per cent of employers will receive reduced premiums.
Building	Vic	1992–93	Deletion of clauses for the payment of Site Allowances in Government building contracts.	Reduction of project costs and encouragement of adherence to agreed employment conditions.

Environmental management

Sector	*Jurisdiction*	*Date*	*Nature of reform*	*Significance*
Environmental management	WA	1993	Clarification of the various roles of the Environmental Protection Authority (EPA).	Ensures the EPA is able to give independent and impartial advice to the government and community.
	NSW	1992–93	The Roads and Traffic Authority (RTA) is implementing 'Best Practice' methods in the planning and management of all its activities.	Balancing community concerns about the environment with the RTA's role in managing the NSW roads and traffic system.
	NSW	May 1992	Integration of transport and land use planning through the development of an Integrated Transport Strategy with the review of the Metropolitan Strategy.	An integrated planning approach will provide a consistent basis for assessment and prioritisation of capital works and service development. Transport planning decisions will more closely reflect the environmental and social costs of transports.
	NSW	1992	Pacific Power implemented an Environmental Management Program which provides clear guidelines on the protection of the environment and heritage and ensures implementation of recommendations from environmental audits.	Assist to improve environmental control of electricity operations.
	SA	1993	Cleaner Industries Demonstration Scheme introduced, jointly developed and funded by Commonwealth EPA, South Australian EPO and the SA Economic Development Authority.	Program is aimed at assisting industry with environmental innovation and promoting the development of the environmental management industry.

Environmental management (continued)

Sector	*Jurisdiction*	*Date*	*Nature of reform*	*Significance*
	NT	1992–93	Reforms to Pastoral Land Management include: prescriptive lease development covenants removed; formal rangeland monitoring introduced; and provision made for the prevention or minimisation of land degradation and the rehabilitation of degraded land. Also provides for perpetual tenure to facilitate the sustainable use of pastoral land and for reasonable public access to perennial waters and places of public interest on pastoral land.	Radical change of focus from administering prescriptive lease development covenants to providing a policy framework which promotes the sustainable use of the Northern Territory's pastoral lands (consistent with the objectives of the Decade of Land Care).
Sustainable management	NSW	September 1992	The State Rivers and Estuaries Policy is a commitment for the sustainable management of the State's rivers estuaries. Policy covers monitoring of water quality in the river systems and environmental flows.	To reduce, and if possible, halt environmental degradation.
Ecologically sustainable development	Joint	December 1992	National ESD strategy is an agreed Commonwealth, State and local Government document to contribute to the integration of environmental and economic decision making in Australia.	Attempts to integrate economic and environmental policy making and avoid the environmental conflicts that have resulted in the past from incompatible policies.
Environmental regulations	NSW	1992–93	The Environment Protection Authority developed guidelines for the preparation of Regulatory Impact Statements (RIS). RISs are required to evaluate the benefits of proposed regulations.	Guidelines provide a basis for setting environmental standards that are more allocatively efficient.

Conservation and land management legislation	WA	1993	Amendment to the *Conservation and Land Management Act 1984.*	Legislative support to the security of resources accessed by timber harvesting operations from State Forests. Also clarifies the Department of Conservation and Land Management's role and responsibility with sharefarming agreements and allow for greater certainty with respect to final marketing arrangements.
Mining	NSW	1992	Requirement that all mines develop and operate under Mine Rehabilitation and Environmental Management Plans (MREMPs) approved by the Department of Mineral Resources.	Ensures that sound environmental management practices are employed in all NSW mines. As of 30 June, 50 per cent of coal mines and 24 large non-coal mines had prepared plans.
	Qld	1992–93	Implementation of environmental management policy, provision of pro-forma environmental management overview strategy, and plan of operation and environmental audit reports to assist industry in complying with legislative requirements, and environmental policy requirements.	Enhanced industry awareness and compliance to necessary standards of rehabilitation and environmental management.
	Qld	July 1992	Amalgamation of a number of mining leases into a single project for more effective and efficient tenure management.	It is estimated that 3500 Mining Leases will be reduced to 600 mining projects. Allows for a single security deposit based on the project rather than on individual leases.
Vessels	NSW	July 1992	Vessels prohibited from discharging waste into Sydney Harbour. New vessels required to have onboard storage or treatment facilities. Commercial vessels without a holding tank must pay a discharge licence fee.	Reduces the amount of pollution in Sydney Harbour.

Environmental management (continued)

Sector	*Jurisdiction*	*Date*	*Nature of reform*	*Significance*
Greenhouse gases	NSW	1993	Pacific Power is implementing strategies to reduce greenhouse gases, including improved thermal efficiency of the system.	Improved end-use efficiency reduces energy costs and improves environmental performance.
Local government	NSW	1993	*Local Government Act 1993* requires councils to promote environmental sustainability by properly managing, protecting and conserving the environment of their area. The state of the environment is to be reported in annual reports.	Councils are to be more accountable for environmental management within their areas.
Water services	NSW	June 1993	Public Works released guidelines for residential use of highly treated reclaimed water in dual reticulation systems. Water is suitable for gardening and toilet flushing. Installation of this system in Wagga Wagga is proposed by late 1993.	Conserving water and recycling nutrients. Adoption of these guidelines is also proposed for new developments in western Sydney to reduce effluent discharges to the Hawkesbury-Nepean system.
Fisheries management	NSW	1992–93	NSW Fisheries assisted with conservation and allocation of fisheries resources in Marine Reserve at Lord Howe Island.	Managing fisheries habitats.
Property rights	NSW	ongoing	Department of Water Resources developed a policy on the management of NSW salinity credits. Policy is aimed at improving water quality in the Murray River.	System of property rights and salinity credits is aimed at assisting efficient resource allocation and improving the management of the environment
	NSW	ongoing	Development of property rights to control phosphorus in the Hawkesbury-Nepean River system; reduce salinity in the Hunter Valley; and improve water quality in the catchment of Carcoar Dam.	Improve management of the environment.

Energy efficiency	NSW	May 1993	Release of the 'Building Energy Manual' which provides guidelines on energy efficient building designs for the public and private sector.	Promote energy efficient building design in NSW to assist in the conservation of energy.
	NSW	1992–93	State Energy Efficiency Drive program for government organisations to reduce energy consumption and greenhouse gas emissions. Programs include energy efficient criteria for public passenger vehicles.	Reducing energy consumption and greenhouse gas emissions in the public sector.
Electricity and water resources	ACT	ongoing	Electricity and water pricing reform and financial management changes in keeping with user-pays principle.	More efficient electricity and water resource use.
Drainage systems	NSW	1992–93	Guidelines on the multiple use of drainage systems.	Encourage more innovative and cost-efficient approaches to land drainage.
Construction	Qld	1992–93 ongoing	The establishment of a single unit in the State Government to co-ordinate State Government involvement in impact assessments.	Increased efficiencies and consistency in processing applications. Cost savings for industry in not having to prepare a number of environmental studies for different agencies. Rationalisation of the number of impact assessments required.
Wildlife licensing	Vic	1992–93	New wildlife licensing system introduced which reflects demand for possession or sale of wildlife.	Greater flexibility in wildlife licensing and efficiency in enforcement effort through utilisation of a tiered licensing system.
Salinity control	Vic	1992–93	Development of model planning controls and guidelines in the Bendigo area to assist implementation of Regional Salinity Management Plans.	Promotion of consistent approaches to land use and planning across local government jurisdictions in the region.

Government business enterprise reforms

Sector	*Jurisdiction*	*Date*	*Nature of reform*	*Significance*
Administrative				
Gas and electricity	Vic	1993	Tariff restructuring to better reflect costs of supply and market conditions. Progressive removal of customer class cross-subsidies in electricity pricing.	Will improve the efficiency of energy use and production decisions.
Electricity	Vic	1992–93	Some restructuring of the SECV into profit centres and financial separation of the generation, transmission and distribution functions.	Improved performance and accountability of electricity generation, transmission and distribution.
	Vic	1993	VICPOOL Trial.	Allow for competition between generators and to prepare the Victorian Industry for a national competitive electricity market.
	SA	1992–93	Restructuring of ETSA involving reduction in the number of operating divisions and workforce to improve efficiency.	Reduction in industrial and commercial tariffs by up to 12 per cent.
	WA	1992	Introduction of new 'R' time-of-use tariff.	Reduction in operation costs to industry.
	WA	1993	Abolition of the SECWA security deposit scheme for businesses.	Cost savings to business.
	NSW	ongoing	Electricity Council's Industry Review Committee established to address electricity supply industry reforms and in particular the deliberations of the National Grid Management Council.	Committee plays an important role in assessing reform policy and ensuring that the consultative process on National Grid developments continues to be effective.

	NSW	1992–93	Establishment by Pacific Power of internal wholesale electricity market. Four generation businesses compete to supply electricity.	Spot pricing has been introduced. Internal market promotes commercial behaviour.
Gas	Vic	1992–93	GFCV is participating in inter-utility performance reviews; benchmarking performance against Australian and overseas utilities.	Benchmarking imposes a competitive discipline.
Water industry	Vic	April 1993	Major pricing policy reforms for Melbourne Water and a number of non-metropolitan water authorities.	Introduction of user-pays pricing providing better signals to users and providers and more efficient use of resources.
	WA	1993	Water tariff reduction for small businesses.	Cost savings to small business and progress towards a user-pays principle for both industry and domestic consumption.
Pricing	NSW	1993	Pacific Power implemented structures to enable delivery of all non-core services by internal business units on a competitive fee-for-service basis.	Places market pressures on internal business units to increase customer focus, reduce costs and improve efficiency in service delivery.
Public transport	ACT	1992–93	Benchmarking study of ACTION bus service commenced to determine best practice. Closure of vehicle workshop and changes in scheduling arrangements introduced. New automated ticketing arrangements being introduced.	Budget savings and further reductions in ACTION's annual subsidy without significant reductions in standards.
	Vic	November 1992	Legislative change to refocus the mission of the Public Transport Corporation (PTC) on key objectives of efficiency and effectiveness.	Provides a framework for reform of the PTC into a responsible, commercially oriented and efficient organisation.

Government business enterprise reforms (continued)

Sector	*Jurisdiction*	*Date*	*Nature of reform*	*Significance*
	SA	May 1993	Asset Management Group established within the State Transport Authority to improve commercial asset management practices.	Minimisation of capital and recurrent expenditures for given corporate objectives and ability to monitor asset performance.
Automatic ticket machines	NSW	May 1993	Automatic ticketing is being introduced throughout the CityRail network.	Savings of $60 million over seven years. Improved services as staff able to concentrate on client services.
Government vehicles	NSW	July 1993	State Government vehicles are no longer exempt from vehicle weight tax and registration fees.	Estimated to provide $10 million per annum to the State's Roads Program. This initiative accords with the user-pays principle and will enable the true costs of operating the Government's vehicle fleet to be identified.
Public works	NSW	July 1992	Reclassification of Public Works as an off-budget agency. A more commercial approach to operations has included: separation of community service obligations from commercial activities; closer monitoring of commercial activities; accrual accounting; and requirements for some units to pay dividends and tax-equivalents.	A more commercial approach to operations is expected to result in improved productivity, a higher return on assets to the government, and charges which are more reflective of costs.
One-stop maintenance	NSW	June 1993	All rail wagon maintenance in the northern region now undertaken at Port Waratah Centre. Centre has state of the art facilities and operates under one work classification.	Reductions in wagon maintenance costs. Industrial agreement is expected to yield increases in individual productivity by 700 per cent.
Community service obligations	NSW	1992–93	Community service obligation contract established with State Transit Authority for Sydney ferries.	Ensure that the community gets value for money by contracts requiring a specific level of service.

	SA	1992–93	Net costs of Department of Marine and Harbours' CSOs funded by direct budgetary payment.	Financial management of DMH commercial and community services are now clearly separated.
Total quality management	NSW	1993	Pacific Power has implemented 'Partners in Power' a total quality program.	Aimed at developing competitive position in the energy market.
Port authority	Vic	1992–93	A redefinition of the role and activities of the Port of Melbourne Authority (PMA).	Reduction in PMA workforce from 1337 at June 1990 to planned 550 by December 1993, representing labour savings of $35.7 million per annum.
	Vic	1992–93	Vehicle booking services have been introduced at all container terminals in the port of Melbourne.	Average total truck turnaround time halved to 70 minutes, with resultant cost savings in excess of $10 million per annum.
	WA	1993	Amendment of port authority legislation.	Allow the complete adoption of commercial practices.
	Tas	ongoing	Marine Act amended in June 1993.	Introduction of modern accounting practices and standards, strategic three year planning, operational one year business planning procedures and payment by ports of corporate tax equivalent payments.
Racing industry	Vic	June 1993	Re-constitution of Totalizator Agency Board and Harness Racing Board membership to remove representational requirements from sectors of the racing industry.	Creates a greater commercial focus for the Board and enables the selection of Board members based on skills.
	Vic	June 1993	Reduction in commission levied on win/place totalizators bets from 15 per cent to 14.25 per cent.	Brings Victoria and other jurisdictions in 'SUPERTAB' into line with NSW, promoting a level playing field and greater competition.

Government business enterprise reforms (continued)

Sector	*Jurisdiction*	*Date*	*Nature of reform*	*Significance*
Timber	SA	1992	Formation of Forwood Products Pty Ltd by bringing together the SA Timber Corporation's operations and Woods and Forests Department's manufacturing and marketing activities.	Economies of scale through rationalisation and more efficient management of Government's timber processing assets.
Construction	SA	1993	South Australian Department of Housing and Construction confining its role to areas where it is competitive and a residual core in project and asset management and procurement.	Increased efficiency of the Department leading to significant annual savings.
Competitive				
Aviation	C'wealth	February 1993	Announced intention to fund the provision of common user terminals at Sydney, Melbourne and Coolangatta.	Will assist the provision of competition in the aviation industry.
Harbour tunnel	NSW	August 1992	Completion of the Sydney Harbour Tunnel, a $738 million joint Government/private sector venture.	Improved access and travel conditions that would not have been possible through traditional funding for many years.
Corporatisation	ACT	1993	Corporatisation of hospital laundry and support services.	Reductions in cost to the major client, ACT Health have been generated, as well as payments to the ACT Government.
	Vic	November 1992	Passage of *State Owned Enterprises (SOE) Act 1992* enabling legislation to provide an umbrella framework for significant restructuring of government business enterprises leading to corporatisation and/or privatisation.	Increase accountability and efficiency of SOEs, providing them with a clear commercial focus and management autonomy.

Electricity supply industry (ESI)	Qld	1992–93 ongoing	Corporatised structure which separates the generation function from that of transmission and distribution.	Increased efficiency and better resource allocation in industry and the energy sector generally. Greater competition in generation provides pressure to improve productivity and cut costs.
Contracting out	NSW	1992	Two year pilot project of contracting out road maintenance of 16 per cent of Blacktown region's road network by the Roads and Traffic Authority. (RTA intends to extend contracting out).	Improved performance from RTA teams and lower costs of 15-20 per cent likely from contractor. Greater flexibility in the allocation of maintenance resources.
	NSW	1992–93	Substantial contracting out of non-core RTA activities including: cleaning and building services; staff training; property valuations; and conveyancing. Also, 70 per cent of enhancement works on the State's classified roads are undertaken by contract.	Full-time staff numbers between June 1991 and May 1993 have fallen by 21 per cent.
	NSW	ongoing	Department of Transport contracted out corporate support functions including: all computer application developments; mail and courier services; legal services; auditing; publications; staff training; library; cleaning; machinery maintenance and engineering and quantity survey services.	Improvements in productivity.
	NSW	March 1993	State Rail Authority leases locomotives from the private sector.	Savings on direct acquisition expenditures of about $60m.
	NSW	April 1993	Maintenance of electric passenger rolling stock by the private sector at the State Rail Authority Clyde/Elcar workshop.	Reducing debt and improving operating efficiencies.

Government business enterprise reforms (continued)

Sector	*Jurisdiction*	*Date*	*Nature of reform*	*Significance*
	NSW	1992–93	Proposed private sector maintenance of Endeavour/Xplorer diesel railcars with potential for extension to XPTs.	State Rail Authority to withdraw from non-core activities with expected recurrent and capital cost savings.
	SA	1992–93	Use of contracted private labour for construction programs by E&WS Department.	Improvements in efficiency through the exposure of the GBE to competition between other GBEs and the private sector.
	Vic	1993	SECV contracting out support services including maintenance.	Assists focus on core activities. Efficiency gains and cost saving expected.
	Qld	May 1993	An umbrella Government Owned Corporations Bill passed. Indicative timetable announced for corporatisation of major Government Owned Enterprises.	Increased allocative efficiency, longer term performance efficiency gains, better utilisation of infrastructure, transparency in costs of providing CSOs and increased service quality.
	Vic	May–June 1993	Victorian Plantations Corporation (VPC) was transformed into a State Business Corporation under the SOE Act.	Improved financial reporting and accountability, greater efficiency and improved client focus.
	SA	May 1993	Public Corporations Act passed. Aimed at clarifying objectives, priorities and performance criteria for statutory authorities, including GBEs.	Improve GBEs performance and accountability. Provides a legislative framework for commercialisation of GBEs.
Rail	Qld	1993 ongoing	Preparation for corporatisation of Queensland Rail — reorganised into four business groups, adoption of accrual accounting and development of trial community service obligations contract for the delivery of Citytrain services.	Significant improvements in Queensland Rail operations and service delivery. Productivity has improved by over 30 per cent in the last two years.
	WA	1993	Closure of Westrail Midland Workshops.	Savings from closure to enable Westrail to become a competitive operator in the transport of bulk cargoes.

	Vic	1992–93	Review of all non-core GFCV services for contracting out.	Reduced costs, increased access to expertise greater efficiency in provision of services.
	Vic	May 1993	Release of guidelines for contracting out processes.	Increase operational efficiency of GBE sector through extensive contracting out processes.
	NSW	1992–93	Contracting out of Department of Mineral Resources services to the Office of Energy and other organisations.	The Department of Mineral Resources received $1.8m for contracted out services in 1992–93. Approximately 20 per cent cost savings. Duplication of resources have been minimised.
Ports	Qld	1993 ongoing	Preparation for corporatisation of Port Authorities — revaluation of land and other assets, adoption of accrual accounting, drafting of new Port Management legislation.	No significant dollar savings in the short term but increased public accountability, and improved utilisation of infrastructure. Should provide savings to users in the medium to long term.
Ports	NSW	1992–93	Maritime Services Board has leased out portside services including storage and distribution facilities throughout the State.	Withdrawal of the Maritime Services Board from portside operations. Leasing out is in line with the MSB adoption of the 'landlord port' model.
Ports	NSW	August 1992	The Goodwood Island Wharf, Yamba, declared a full cargo import facility.	'Port of First Entry' status removes all restrictions on entry of all import cargoes into the port. Potentially allows greater trade access to the North Coast.
Ports	Vic	December 1992	Re-estimation of dredging needs in the port.	Increased utilisation of dredging facilities.
Pilotage services	NSW	October 1992	Withdrawal of the MSB Sydney Ports Authority from pilotage services in Sydney Harbour and Botany Bay.	Shedding of non-core activities by the MSB. Opening up the provision of pilotage services to the private sector.

Government business enterprise reforms (continued)

Sector	*Jurisdiction*	*Date*	*Nature of reform*	*Significance*
Irrigation	NSW	1992–93	Murray-Darling Basin Ministerial Council agreed on a common basin-wide approach to property rights, transferable water entitlements and water pricing. An Irrigation Management Strategy is due for completion in October 1993.	Assists efficient resource allocation.
Water rights	NSW	1992–93	Department of Water Resources has negotiated new water entitlements with sales from the enlargement of Glenbawn Dam in the Hunter Valley. So far 69ML of water has been sold at $260 per ML.	Sale of water entitlements on a commercial basis.
	NSW	1992–93	A trial inter-valley transfer of 20,000 ML from the Murray and Murrumbidgee River systems to the lower Darling River Valley has been agreed. Interstate transfers between NSW and Victoria have also been agreed.	More efficient allocation of water resources.
	NSW	1992–93	Department of Water Resources is developing markets in water entitlements, in particular, inter-valley transfers.	Assists efficient resource allocation.
Public transport	Vic	January 1993	The PTC rolling stock maintenance activities and facilities have been reviewed to develop a commercially viable maintenance division.	The strategy for the commercialisation of the maintenance activities to world best practice is central to the PTC achieving targeted savings.
	Vic	1993	Ancillary administrative and trading activities within the PTC (eg audit, catering, freight handling, freight road operations, cleaning) have been put to public tender.	Reduction in costs and staffing requirements.

Gas	Vic	1993	GFCV using private sector equity and joint ventures for ancillary activities such as exploration and consultancy.	Improved access to risk capital and private sector skills.

Ownership

Education	Tas	1993	Privatisation of all student hostels.	Now fully self supporting.
Meatworks	WA	1993	Closure of the Robb Jetty Abattoir and transfer of function to commercial operators.	Removal of an unnecessary function for government and boost to non-government operators.
Grain handling depot	NT	July 1992	Privatisation of the operations of the Katherine and Douglas Daly Grain Depot.	Improvement in the overall efficiency of the grain handling operations in the NT.
Tourism marketing	NT	1992	Closure of the Australian Tourist Bureau Network.	Improved the effectiveness of the new Commission with sales of tourism products now substantially in the hands of private sector travel agencies.
Asset sales	NSW	1992–93	Sale of Maritime Services Board properties at Newcastle, Fort Denison, Glebe Island, Botany Bay, Parramatta River and Coffs Harbour.	Shedding of non-core assets by the MSB with proceeds available for retiring debt or new investment.
Infrastructure provision	NSW	August 1992	Private sector provisions and operation of major new sections of the M5 Motorway providing 15km of road in South Western Sydney.	Allows for improved road access that would not have been available through traditional funding sources for many years.
	NSW	ongoing	Installation of private hydro-power station at Wyangala Dam.	Lower demand on public sector financial resources.

Government business enterprise reforms (continued)

Sector	*Jurisdiction*	*Date*	*Nature of reform*	*Significance*
Industrial relations	NSW	1992–93	Amendment of NSW public sector superannuation schemes removing impediments to transfer of personnel from public to private sector in privatisation projects.	Removal of impediments to privatisation.
Sydney–Canberra tilt train	NSW	November 1992	Expressions of interest called for the private sector provision of a tilt train passenger service between Sydney and Canberra.	Potential for improved passenger service at reduced cost to the Government.
Privatisation	NSW	June 1993	Sale of the MSB Waterways Authority Navaids and Waterfront Services businesses.	Shedding of non-core activities by the MSB.
	NSW	June 1993	Privatisation of Gumly Gumly Irrigation District near Wagga Wagga.	First government irrigation scheme to be privatised. Potential for cost savings.
Joint venture	NSW	ongoing	Enlargement of the Pindari Dam is being conducted jointly with the private sector.	Lower demand on public sector financial resources.
	NSW	ongoing	Department of Water Resources has signed an agreement with the private sector for the joint provision of infrastructure supply pipelines.	Lower demand on public sector financial resources.
Electricity council	NSW	1992–93	Adoption of Total Quality principles by distributors. Total Quality Committee set up to promote the reform including sharing between distributors of information, experiences and resources on total quality.	Guidelines implemented to improve quality of service and efficiency of electricity distributors.
Electricity supply	NSW	1992–93	Financial separation of electricity network businesses from other business units.	Provides greater transparency of prices and efficiency in the supply of electricity to consumers.

Transport accident commission	Vic	April 1993	Declaration of the Transport Accident Commission (TAC) as a reorganising body under the SOE Act with the view to all commercial insurance functions being operated by the private sector.	Will lead to the development of a competitive, efficient and sustainable Compulsory Third Party insurance market.
Government employee housing authority	Vic	June 1993	Declared a reorganising body under the SOE Act, with the aim of introducing program of house sales to reduce the number required to meet employee needs.	Sale of surplus employees houses will lead to the retirement of State debt.
Gas	Vic	1993	Sale of Heatane (100 per cent) (liquid gas) division of the GFCV.	Restructuring of the GFCV to remove the non-core functions.

Regulation review

M Developments in regulation and its review

APPENDIX M
DEVELOPMENTS IN REGULATION AND ITS REVIEW

While various anti-competitive regulations continue to be dismantled, the focus of reform is shifting towards pro-competitive regulation. Following several far-reaching reforms in the previous year, in 1992–93 the Government modified mergers regulation and foreshadowed further changes to the corporations law. The Hilmer Review has also proposed wide-ranging changes and a national approach to competition law.

But while reform of existing regulation continues apace, the growth of new regulation is not being checked. Much new Commonwealth regulation receives limited public or parliamentary scrutiny, and the processes for making and reviewing new regulation are inadequate. As a result, new regulation can often be overly complex, costly and prescriptive. The Government therefore needs to adopt comprehensive procedures for vetting new regulation, such as those proposed by the Administrative Review Council.

Microeconomic reform involves not only review of the existing stock of regulation but also measures to ensure that the flow of new regulation is justified and that new regulatory regimes are well designed. Whereas much of the Industry Commission's workload focuses on existing government intervention in the economy, the Office of Regulation Review (ORR) — incorporated into the Commission in 1989 — deals mainly with new Commonwealth business regulation.

In assessing new regulatory proposals, the ORR seeks to implement the Commonwealth Government's policy of 'minimum effective regulation'. Under this policy, regulation will be supported only where a well-defined social or economic problem exists, where other solutions such as self-regulation or market-based measures are inappropriate, and where the likely benefits of the regulation exceed the likely costs. The policy does not seek 'deregulation' *per se*: rather, it seeks more selective, appropriate and better designed regulation.

As well as scrutinising particular regulatory proposals, the ORR seeks to encourage governments and their agencies to adopt sound regulation-making processes. This aspect of the ORR's work aims to influence the culture of regulation within government and the bureaucracy towards the 'minimum effective regulation' objective.

This appendix discusses major developments in regulation and its review over the last year.

Aggregate changes in Commonwealth regulation

Types of regulation

Business regulation refers to government actions which:

> ...whether by the use of fiat or inducement, persuade business entities to pursue their commercial interest in ways they might otherwise not have chosen. It seeks to modify or augment that body of common law which governs interactions in general and which constitutes the basis of a model free market economy (BRRU 1986, p.1).

Regulation can be classified into three groups — primary legislation, subordinate legislation and administrative decisions and instruments — on the basis of how it is made. *Primary legislation* consist of Acts of Parliament. *Subordinate legislation* comprises all rules or instruments which have the force of law but which have been made by an authority to whom Parliament has delegated part of its legislative power. There are three main types:

- statutory rules must be approved by the Governor General in Council and are subject to review by the Senate Standing Committee on Regulation and Ordinances (SSCRO) and disallowance by Parliament;
- disallowable instruments are made by Ministers or Departments and are subject to review by the SSCRO and disallowance by Parliament; and

- other subordinate legislation which is not subject to parliamentary scrutiny.

Administrative decisions and instruments, while not legislative in character, usually consist of the application of legislation to particular circumstances.

Regulation can also be classified according to the way it affects economic activity. *Pro-competitive regulation* establishes property rights, secures contractual obligations and keeps markets open and competitive. *Anti-competitive regulation* governs the entry of firms and individuals into markets, or controls prices or production levels. *Social regulation* directs firms' production and marketing activities generally to achieve social objectives.

Trends in regulation

There are several problems involved in attempting to measure and make judgments about the aggregate level of business regulation in the economy. While a listing of primary legislation can be obtained, there is no consolidated listing of all subordinate or administrative regulation at the Commonwealth and State levels.[1] Even if there were, the amount of regulation in existence would not indicate its actual economic impact. A further problem is that determining whether any particular regulation meets with the 'minimum effective regulation' criterion involves several complex and, in some instances, contestable judgments.

Although these problems preclude useful comments about the desirability of existing Commonwealth business regulation at the aggregate level, several trends in new regulation are evident.

1 188 Acts were passed by the Commonwealth in 1992–93. Of these, 32 were Acts relating to supply or appropriation, 51 were new Acts and the balance, 105 Acts, involved amendments to existing legislation. The ORR estimates that at least 54 Acts provided for mainly business regulation. Many of these deal with minor amendments or procedural matters. The Acts involving more substantive amendments or new regulation are listed in Table M1.

Table M1
Significant Commonwealth primary business legislation, 1992–93

Primary legislation	*Main feature*
Antarctic (Environment Protection) Legislation Amendment Act 1992	Brings Australia into line with the Protocol on Environmental Protection to the Antarctic Treaty.
Broadcasting Services Act 1992	Regulates (less heavily than previously) radio and television broadcasting, and establishes the ABA.
Broadcasting Services (Subscription Television Broadcasting) Amendment Act 1992	Includes provisions relating to the issuing of subscription (Pay) television broadcasting services.
Broadcasting Services Amendment Act 1993	Effects cross-media ownership and MDS licenses.
Broadcast. Services Amend. Act (No. 2) 1993	Sets out deposit requirements for bidders for Pay TV.
Charter of the United Nations Amendment Act 1993	Provides for sanctions (including on trade) to give effect to certain decisions of the Security Council.
Corporate Law Reform Act 1992	Relates to winding up in insolvency, related party financial dealings and the securities clearing house.
Endangered Species Protection Act 1992	Aims to protect endangered species.
Great Barrier Marine Park Amend. Act 1993	Provides for environmental management charges.
Health and Community Services Legislation Amendment (No. 2) Act 1992	Changes the regulation of health insurance and nursing homes.
H&CSL Amendment (No. 3) Act 1992	Sets health standards and nursing home regulation.
Health Insurance (Quality Assurance Confidentiality) Amendment Act 1992	Relates to quality assurance activities and information disclosure for health services.
Imported Food Control Act 1992	Provides for inspection and control of food imports.
Industrial Relations Legislation Amendment Act (No. 2) 1992	Relates to the setting of national standards and codes of practice under the *National OHS Commission Act.*
Industry, Technology and Commerce Legislation Amendment Act 1992	Changes to industrial and intellectual property regulations.
International Labour Organisation (Compliance with Conventions) Act 1992	Gives effect to and ratifies certain international labour conventions.
Law and Justice Legislation Amendment Act (No. 4) 1992	Amends, among others, the *Bankruptcy Act 1966.*
Mutual Recognition Act 1992	Allows mutual recognition of goods and occupations.
National Health Amendment Act 1992	Regulates nursing homes.
National Health Amendment Act 1993	Sets up privacy guidelines.
Natural Resources Management (Financial Assistance) Act 1992	Establishes the Natural Resource Management Fund and the National Landcare Advisory Committee.
Petroleum (Submerged Lands) Amendment Act 1992	Promotes the occupational health and safety of persons employed in the designated areas.
Radiocommunications Act 1992	Regulates the radio frequency spectrum, including provision for price-based and tradeable licences.
Seafarers Rehabilitation and Compensation Act 1992	Covers rehabilitation and workers' compensation for seafarers, including compulsory insurance.
Superannuation Guarantee Charge Act 1992	Charges firms which fail to provide compulsory superannuation contributions for their employees.
Telecommunications Amendment Act 1993	Allows for the development of a Land Access Code.
Tobacco Advertising Prohibition Act 1992	Limits advertisements for tobacco products.
Trade Practices Amendment Act 1992	Provides for a new product liability regime.
Trade Practices Legislation Amend. Act 1992	Expands the concept of unconscionable conduct.
Transport and Communications Legislation Amendment Act (No. 3) 1992	Allows for codes of practice under the *Broadcasting Services Act 1992* and refines AUSTEL's functions.

Source: ORR (derived from examination of original legislation)

Table M2
Commonwealth statutory rules and disallowable instruments, 1982–83 to 1991–92

Year	*Statutory rules*	*Disallowable instruments*	*Total*
1982–83	553	150	703
1984–85	445	276	721
1985–86	429	426	855
1986–87	322	335	657
1987–88	345	493	838
1988–89	398	779	1 177
1989–90	411	820	1 231
1990–91	484	1 161	1 645
1991–92	524	1 019	1 543

Source: SSCRO (1993)

First, as noted in last year's Annual Report (IC 1992d), the amount of anti-competitive regulation is declining, while there has been a revamping of pro-competitive regulation and an increase in social regulation. This can be seen in Table M1 which lists significant new primary Commonwealth legislation, including Acts which made significant changes to existing regulatory regimes. Anti-competitive legislation has been reduced in broadcasting and through the implementation of the Mutual Recognition Act. Pro-competitive regulation has been refined in product liability law, corporations law and intellectual property law. Most new primary legislation in 1992–93 provided for increased social regulation, such as in areas of the environment, occupational health and safety, and health services.

Second, available information suggests that the volume of new Commonwealth statutory rules and disallowable instruments has increased significantly over the last ten years. The SSCRO reports that 1543 instruments were added to the existing level of these types of regulation in 1991–92 (the latest year for which figures are available). Although this is slightly lower than the previous year's figure, it remains well above the level of a decade earlier (Table M2).

Third, within this trend, there is an increasing reliance on disallowable instruments. As these instruments do not receive Cabinet or effective parliamentary scrutiny, and their economic impact has not been addressed in most cases, the trend towards this type of instrument has the potential to reduce the quality of regulation.

Changes in pro-competitive regulation

As previously stated, pro-competitive regulation refers to laws which establish private property rights and keep markets open, and is essential for the smooth functioning of market-based economies. It includes:

- companies and securities regulation;
- trade practices legislation;
- liability laws; and
- intellectual property laws.

Pro-competitive regulation has received greater emphasis in recent years, for two reasons:

- in the past, the impact of anti-competitive regulation and industry-specific regulation has diminished the role of less prescriptive and more general pro-competitive regulation. As anti-competitive and industry-specific regulation has been phased down during the late 1980s and early 1990s, pro-competitive regulation has had more impact; and
- as this has occurred, there has been an increased awareness of the costs of inappropriate pro-competitive regulation and the importance of 'getting it right'.

Following on from the already significant reform activity discussed in last year's report, in 1992–93 the Government launched major reviews of two of the most important areas of pro-competitive regulation: the corporations law and restrictive trade practices regulation. Both reviews question the scope and detail of the respective regulation.

Other areas of pro-competitive regulation being examined include intellectual property law and workers' compensation, while the product liability issue, after several years of dispute and review, now appears to be largely settled.

Companies and securities regulation

Companies and securities regulation aims to ensure the free flow of information on the financial position and prospects of commercial organisations. It stipulates penalties for misrepresentation or financial misconduct by company directors and agents.

A new national companies and securities regime was brought into effect in January 1991. It replaced the previous separate State and Commonwealth laws and agencies with a national Corporations Law and a new and more independent Australian Securities Commission (ASC).

The Government then launched four waves of amendments and further reforms to the Corporations Law — some procedural, others more far-reaching. Many of the amendments were criticised by the legal profession and the business community as being too complex, intrusive and prescriptive.

In April 1993, the then Attorney-General, Mr Kerr, foreshadowed a comprehensive program of simplification of the Corporations Law:

> Now is the time to take the whole body of law inherited from the old co-operative scheme, and strip away all the unnecessary verbiage and complexity that has grown up during the century of company law development in this country (Kerr 1993, p.1).

The new Attorney-General, Mr Lavarch, has endorsed the review, suggesting that another goal would be to ensure that Australia's corporations legislation was compatible with New Zealand law and the laws of Australia's Asian trading partners (Davies 1993).

The Attorney-General is in the process of forming a Task Force to oversee the review of the Corporations Law. This Task Force will work in consultation with a part-time private sector consultative group. Mr Lavarch (1993) has stated that he sees the active participation of private sector representatives as an important element in making the Corporations Law simpler and cheaper for its users.

Business groups favour a more 'fuzzy law' approach to corporate governance. Fuzzy law refers to an approach to regulation that replaces prescriptive statutory 'black letter' rules with performance standards, by using general legal principles. These principles are applied by the courts to individual cases and, over time, a body of law based on actual commercial behaviour of firms is developed.

Critics argue that this approach reduces the certainty in the law, but the ORR notes that any problems with uncertainty can be dealt with by according 'deemed to comply' status on the prescriptive rules; thus allowing firms who prefer to adhere to the old-type rules to continue to do so with impunity. In any case, prescriptive rules do not avoid uncertainty because of the ongoing identification of 'loopholes' and subsequent amendments.

Competition law

Competition law, also referred to as anti-trust law or restrictive trade practices regulation, aims to restrict the ability of firms with market power to engage in anti-competitive activities. The main developments in competition law during 1992–93 were the National Competition Policy Review (the Hilmer Review) and changes to the regulation of mergers.

Competition policy: the Hilmer review

In October 1992, the Prime Minister, in consultation with the heads of State and Territory governments, established an independent inquiry into competition policy in Australia to be chaired by Professor Fred Hilmer. The Review was prompted by concern about the range of exemptions from the competition law provisions of the Trade Practices Act.

The Review's report (Hilmer 1993) was presented to the Prime Minister on 25 August, following circulation of a draft report and consultation between the Review committee and the Commonwealth, States and Territories.

The first part of the report is concerned with technical changes to existing competition law, and extending the application of this law to new areas, such as all government enterprises and unincorporated associations.

The second part deals with the new policy elements needed to regulate markets traditionally supplied by governments, particularly where there are natural or mandated monopolies. These new policy elements are:

- review of regulatory restrictions to competition on a national level;
- structural reform of public monopolies;

- determination of rights of access to 'essential facilities' (natural monopolies);
- determination of limits on monopoly pricing; and
- review of the extent that public provision of goods and services should be subject to the same rules as private provision of similar products (competitive neutrality).

The third part outlines institutional, legal, transitional and resource issues. In it, the Review recommends a new body, the National Competition Council (NCC), to "play a key role in policy decisions" relating to the new policy elements listed above. The NCC would be responsible for safeguarding State and Territory interests, and would also report on transitional issues.

The Review suggests that the Trade Practices Commission (TPC) and elements of the Prices Surveillance Authority (PSA) be combined to form the Australian Competition Commission (ACC). In addition to the current functions of the TPC, the ACC would:

- oversight adherence to access declarations for essential facilities, and provide an arbitration process for dispute settlement;
- administer the prices oversight mechanism for essential facilities; and
- expand its review of anti-competitive regulation to reflect the broader scope of the Trade Practices Act, and report on compliance with competitive neutrality issues and legislative exemptions from the Act.

The Review suggests that implementation of its recommendations should be negotiated between all governments with referrals of power to the Commonwealth where necessary. In so doing, it has suggested that the Commonwealth generally not act unilaterally, even though it believes that the Commonwealth could probably put in place most of its recommendations alone. This approach would involve testing the limits of Commonwealth constitutional powers and, in particular, the power to regulate corporations and their dealings with others.

The report of the Hilmer Review will be discussed at the next meeting of the Council of Australian Governments (COAG), probably in December.

Changes to mergers regulation

In June 1992, the Government announced that it would accept the major recommendations of the Cooney Committee inquiry into Mergers, Monopolies and Acquisitions regarding the mergers provisions of the Trade Practices Act. Part IV of the Trade Practices Act was subsequently amended to change the threshold test for mergers from the 'create or enhance a position of dominance' test to the 'substantial lessening of competition' test.

In November 1992, the TPC released draft guidelines to explain in detail how it will administer applications for authorisation of mergers under the new test.

In the last few years, the TPC's regulation of mergers has placed more emphasis on the competitive discipline of import competition. Indeed, Fels and Walker (1993) note that the TPC has not opposed a merger in the traded goods sector since at least July 1991.

The new merger guidelines (TPC 1992a) appear to reinforce this trend: the focus of merger scrutiny will be the non-traded goods and services sectors. Such a shift in emphasis has already been endorsed by the Commission in its discussion paper on Pro-competitive Regulation (IC 1992f).

However, the ORR is concerned that the new market concentration thresholds in the new TPC guidelines are similar to those in the 1992 US Merger Guidelines. The US domestic market is so large that it may be a reasonable rule of thumb to assume that scale economies have been exhausted at modest market shares. When transferred to Australia, these thresholds may frustrate the formation of industrial units of an efficient size. An example of the large difference in minimum efficient scale, relative to market size, comes from the Commission's report on the automotive industry (IC 1990a). Annual assembly volumes of 200 000 per plant were generally regarded as necessary for efficient production. No Australian plant was then operating at more than 100 000 units a year for a market where new car registrations were about 440 000. The draft guidelines recognise that cost savings can flow from mergers, but only if they are likely to be passed on as lower prices to buyers (with some qualifications about exports and import replacement). Thus, in Australia, mergers to the minimum efficient scale immediately places a car manufacturer 'at risk' under the merger guidelines. This would not occur in the US because aggregate car production in 1989 was 6.8 million units.

While the TPC may confer authorisation on merging firms under these particular circumstances, this aspect of the merger procedures could create unnecessary uncertainty for businesses, particularly those competing in the traded goods sector, where imports promote competitive outcomes in the domestic market.

Product liability

Product liability laws specify the circumstances in which people who suffer product-related loss or injury are entitled to receive financial payment from the producers (or sellers) of the goods. They are essentially the legal means of compensating consumers for faulty products, and they affect the incentives for firms to increase the safety and quality of their goods, and for consumers to use goods carefully.

After a series of reviews, inquiries and reports on Australia's product liability laws and several drafts of new legislation, the Government last year enacted a new regime. The new regime — Part VA of the *Trade Practices Act 1974* — is based on the European Community Directive on Product Liability and follows the thrust of the recommendations from the Commission's report (IC 1990b).

When introducing the new regime, the Government referred three controversial issues to the Senate Committee on Legal and Constitutional Affairs for further consideration. The three matters related to the length of the 'statute of repose', whether overseas consumers of Australian products should be entitled to rights under the new Australian law, and whether consumers should face a reduced burden of proof.[2] The ORR (1992), in a submission to the Committee, supported abolition of the statute of repose and the extension of rights to consumers overseas, but argued that the onus of proof should not be tampered with unless experience shows significant problems with the new regime. The majority of the Committee (SSCLCA 1992) argued that there should be no change to the regime except in the

2 The 'statute of repose' refers to the time limit (after the purchase of the goods) for which a producer can be held liable for loss caused by its goods.

case of the statute of repose, where it considered that a court ought to be able to extend the repose period under certain circumstances.[3]

While this may provide some time to 'settle down' the details of new regime, there remain problems in this general area of the law that warrant attention:

- product liability laws in Australia remain complex and overlapping, with remedies available under different parts of Commonwealth and State law. With the implementation of the new regime, these other laws are unnecessary and should be repealed; and
- the law of contract fails to attribute appropriate responsibility to consumers for their actions in product liability cases. If remedies to consumers are to remain available under that law, it should be modified to better reflect concepts of contributory negligence on the part of consumers.

There would also be merit in reviewing the new product liability regime in five years time to determine, amongst other things, whether in practice it provides appropriate access to remedies for consumers.

Changes in anti-competitive regulation

Anti-competitive regulation includes: tariffs; quotas; statutory marketing arrangements; minimum accreditation standards (eg minimum qualifications to practice law); and legislated monopolies.

There has been considerable progress in recent years in the reform of anti-competitive regulation. This has included reducing tariffs, liberalising primary industry markets, and opening up transport and communications markets. During this year, there has been a further reduction in broadcasting regulation (for areas other than Pay TV) and the introduction of mutual recognition of regulation for goods and occupations has the potential to reduce the impact of State-based, anti-competitive regulation (see below).

3 Specifically, while considering that the repose period should generally remain at 10 years, the committee recommended that a court should be able to extend the period if it is shown that, on or before the date a product was supplied, the manufacturer knew or ought to have known that it was defective (SSCLCA 1992, p.xi).

However, substantial anti-competitive regulation prevails in some sectors and further reform may be warranted. Two examples are now discussed.

The professions

The professions are exempt from the operation of the *Trade Practices Act 1974*. This allows them to undertake practices which would otherwise contravene the Act including various forms of collusive dealing (especially price fixing agreements), exclusive dealing arrangements, and anti-competitive restrictions on entry and conduct. The regulation of professions is usually developed and enforced through self-regulatory codes although, in some instances, these codes have legislative backing.

Regulation of certain aspects of some professions may be justifiable. In the market for medical services, for example, the availability of subsidised health care, and the fact that doctors both advise patients of the need for treatment and supply the service, mean that some form of regulation may be necessary to ensure that doctors do not over-service their patients. The costs consumers face in selecting between practitioners may also justify regulation of entry into a profession through appropriate accreditation standards.

However, some regulation of the professions appears to have different motives. For example, bans on advertising professional services, as apply in the legal profession, appear to serve no purpose other than to restrict competition. Likewise, accreditation standards are often set at very high levels and have the potential to unduly exclude new entrants from the market.

The TPC has been undertaking a series of reviews of the professions. It has already released studies on architects (TPC 1992c) and accountants (TPC 1992b) which found that, while these professions had some unjustifiable regulation (eg an hourly rate fee schedule for insolvency practitioners), they were generally competitive and not significantly constrained by regulation. The TPC is due to release a draft study on the legal profession in early October 1993. In a submission to the TPC, the Attorney-General's Department criticised barriers to entry and restrictive trade practices in the legal profession.

There have been some reforms to regulation of professions in recent years. For example, since 1991, all States other than Queensland that had banned the advertising of legal services have lifted those bans. In NSW, property conveyancing, previously restricted to lawyers, has been opened up to para-professionals and the Government has announced that it will no longer appoint Queen's Counsels (although the extent to which these NSW reforms will increase competition is unclear). Further, mutual recognition of entry standards has reduced some previous State barriers to competition within professions.

The Hilmer Review has recommended that the Trade Practices Act be extended to apply to the professions. If accepted, this recommendation should increase competition in the market for professional services, thereby providing consumers with access to services at lower cost and potentially improving equity in terms of the remuneration received by different groups within the workforce. This reform alone will not remove those anti-competitive practices which have State legislative backing. However, as noted above, some anti-competitive practices may be justified in certain circumstances. The Hilmer review envisaged that such issues would receive scrutiny under the auspices of the NCC to determine whether the benefits of such practices exceed their costs.

Pay TV

During the past year, the Government put in place the regulatory framework for the introduction of Pay TV services to Australia. The main legislation is the *Broadcasting Services (Subscription Television Broadcasting) Amendment Act 1992*.

The framework is highly prescriptive, involving regulation of the number of stations, ownership, local content and transmission technology. Industry development criteria are also included in the licensing requirements for Pay TV providers. As such, the regulatory regime involves aspects of both social and anti-competitive regulation.

In its paper on Pay TV regulation, the ORR (1991) found little justification for the detailed regulation of Pay TV services, and that common arguments for regulating the technological means of providing Pay TV services were invalid.

Some of the problems associated with this type of regulation have been highlighted by recent developments. In particular, the unexpected threat posed to satellite provision — the Government's chosen transmission technology — by potentially more competitive microwave multi-point distribution services (MDS) demonstrates the problems governments face in attempting to pick 'technological winners'.

Overall, in the ORR's view, the regulatory framework developed for Pay TV is likely to inhibit competition and limit the benefits to consumers from the new services.

Changes in social regulation

Social regulation directs firms' production and marketing activities, generally, to achieve social objectives. Examples of social regulation include: environmental controls; food standards; product safety regulations; occupational health and safety (OHS) standards; and broadcasting content requirements.

Social regulation is often used as a response to forms of 'market failure', such as the problem that polluters do not bear the full costs to society of their activities. Some forms of social regulation, such as emissions standards, seek to over-ride market processes and prescribe desired outcomes. Alternatives to achieve these social goals include the use of economic instruments, such as pollution taxes, which seek to augment market processes by integrating the costs of pollution into firms' and individuals' production and consumption decisions.

Environmental regulation

National strategies

As discussed in last year's Annual Report, several national strategies to deal with environmental problems have been developed during the last few years. These include strategies dealing with waste and recycling, used motor vehicle tyres and waste lubricating oil, bio-diversity, ozone depletion, greenhouse emissions and ecologically sustainable development (ESD).

Progress in implementing the strategies has been mixed. For example, many elements of the National Waste Minimisation and Recycling Strategy have been or are being implemented by the Commonwealth, including the compilation of a national data base on waste disposal and work on the feasibility of using waste pricing to overcome disposal problems (BIE 1993d). Meanwhile, various States (particularly Victoria) have pushed ahead with their own actions. However, other measures included in the strategy have not been progressed (eg targets for recycling and packaging reductions). The ORR also understands that there has been only limited progress in implementing the recommendations of the Australia and New Zealand Environment and Conservation Council report on waste lubricating oil and used motor vehicle tyres (ANZEC 1991).

During the year, further revisions and updates were made to the Strategy for Ozone Protection (ANZECC 1993). This strategy represents an amalgam of the measures to reduce production and use of CFCs and certain other controlled substances, endorsed by the Australian Environmental Council (the predecessor to ANZECC) in July 1989. The strategy's measures, and associated State-based initiatives, include bans on certain products and manufacturing processes, controls on the purchase and sale of specified products, the accreditation of mechanics who use CFCs, and the implementation of industry codes of practice. These measures are in addition to the tradeable permits scheme for CFCs, and licenses for the production, import and export of CFCs, provided for under the Commonwealth's *Ozone Protection Act 1989*. The strategy's measures have been modified, tightened and supplemented over time.

In the ORR's view, some of these approaches may be overly prescriptive, costly and complex to administer and comply with. In particular, the overlaying of complex product, sale and end-use controls at the State level on the Commonwealth's tradeable permit scheme is an unnecessary process, as the reduction in CFCs could have been obtained more efficiently, and with less cost, using an appropriate tradeable permits scheme alone. As the complete phase-out of all remaining CFCs (except for essential uses) is scheduled for the end of 1995, it may not now be sensible to attempt to overhaul this regime. However, in developing a regime for reducing HCFCs — the next step in ozone protection — State and Commonwealth environmental agencies should seek to avoid the complexity and inefficiencies inherent in the current approach.

Institutional arrangements

The Intergovernmental Agreement on the Environment (IGAE) — signed by the Commonwealth, the States and the Local Government Association in May 1992 — provides for the establishment of a Ministerial Council to be known as the National Environment Protection Agency (NEPA). NEPA will be charged with developing national environment protection measures. Despite delays in giving effect to this aspect of the agreement, the establishment of NEPA brings potential benefits insofar as it may reduce unnecessary discrepancies between State environmental standards, while enhancing environmental regulation-making.

To fulfil this potential, NEPA will need to adopt a rigorous approach to assessing proposals. It will need to identify the objectives, evaluate the alternatives and assess the benefits and costs of proposals before it. The ORR considers that the approach taken by the National Road Transport Commission may provide a useful analytical model for NEPA.

It is also important that any measures endorsed by NEPA be subject to external scrutiny to ensure that the cross-portfolio effects and economy-wide benefits and costs of decisions are properly considered. A proposal for subjecting standards developed by national agencies to regulation review procedures is discussed later in this appendix.

NEPA decisions will also need to recognise that the costs and benefits of environmental protection measures often vary across states and across regions, so nationally uniform standards will not always be appropriate. For example, factory airborne emissions standards will generally need to be tighter in metropolitan areas than in country areas. This means that NEPA standards will need to incorporate a degree of flexibility to account for such differences. That said, for some substances such as CFCs which affect the environment more at the global rather than the local level, a uniform regulatory approach will be appropriate.

Food standards

The year saw an advance in the reform of the regulatory environment of the processed food industry. The establishment of the National Food Authority (NFA) is now complete and it has:

- increased its throughput of decisions, reducing the large backlog of outstanding applications;
- completed the comprehensive policy review ordered by Cabinet; and
- adopted a five year program for the total review of the individual standards in the Food Standards Code.

However, these positive developments were offset by:

- the adverse nature of some of the decisions on new standards (eg the proposal to limit the vitamin and mineral fortification of products, which was made on questionable nutritional grounds, will require some popular brands of breakfast foods to be reformulated and greatly limit producers' future ability to service markets for functional foods); and
- the implementation, after a delay, of the expanded Commonwealth imported food inspection program, announced in 1992.

The ORR also considers that the final report of the policy review (NFA 1993) does not provide a sound basis for the future formulation of food standards. While the report endorses the analysis of the problems of food regulation identified in earlier reviews, it makes no significant recommendations for improvement. In particular, it fails to recommend careful economic evaluation of applications (as is required by the regulation review policies of the Commonwealth and most State governments), minimum standards of technical information on scientific and consumer concerns, and the development of base-line standards for risk acceptability. Consequently, many of the arbitrary 'rules of thumb' that have characterised food standard setting in the past will continue.

Moreover, the NFA has yet to establish effective mechanisms for the coordination of food regulation enforcement by the many agencies involved. Indeed, its first enforcement proposal was to expand the Commonwealth Government's imported food inspection program beyond a targetted risk-based approach to include inspection for compliance with the full requirements of Australia's highly prescriptive, unique and changing food standards. This simply imposes an additional layer of regulation on imports without addressing the underlying issue of rationalisation of Australia's un-coordinated and arbitrary State and local government inspection programs.

Occupational health and safety

Reflecting its concern about the slow progress in the development of national OHS standards, the National Occupational Health and Safety Commission (Worksafe Australia) has been directed to complete a program of national uniform OHS regulation by the end of this year. The programs main priorities include the development of uniform regulations relating to:

- plant;
- certified users and operators of industrial equipment;
- workplace hazardous substances;
- manual handling;
- noise;
- storage and handling of dangerous goods; and
- major hazardous installations (Emmett 1993, pp.6-7).

The approach taken by Worksafe in developing national standards has been to replace State-based prescriptive rules with performance standards and codes of practice which focus on formal programs of hazard identification, risk assessment and abatement by a hierarchy of measures.

This hierarchy creates a preference for particular forms of abatement. For example, in the case of noisy equipment, redesign to reduce noise is preferred to adding sound deadening material, which in turn is preferred to issuing protective equipment to employees. Such a hierarchy can be sensible; many OHS problems can be remedied by a simple and cheap redesign, and Worksafe may have expertise it can bring to bear.

However, there is a problem if mandating a hierarchical approach involves high cost thresholds before alternative approaches can be used. Firms should be allowed to choose the most cost-effective solutions to OHS problems. This should allow larger reductions in the frequency and severity of accidents for a given amount of resources spent on OHS.

While the ORR considers that the approach adopted by Worksafe represents an improvement on past practices, full adoption of a cost-effectiveness approach is desirable to maximise the benefits from OHS regulation.

Regulation-making processes

Mutual recognition

National arrangements for the mutual recognition of regulation commenced in March 1993, two months behind the introduction of similar arrangements into the European Community.

Heads of government agreed to the Australian scheme in May 1992. It allows most goods that are first produced in or imported into one State or Territory under the laws of that jurisdiction to be sold freely throughout the country. In addition, members of regulated occupations, once registered in any one State or Territory, will be able enter the practice of an equivalent occupation anywhere in Australia.

Legislation giving effect to the agreement has been passed by the Commonwealth government and in all States and Territories other than South Australia and Western Australia. Legislation had not (at 10 September) been introduced into the Western Australian Parliament. In South Australia, the enabling Bill was initially rejected by the Legislative Council, but the legislation was finally passed on 9 September 1993.

By and large the scheme creates a common market for goods within Australia. Firms are now able to gain the advantages of economies of scale by avoiding the need to produce and stock variants of the same product required in the past to meet different State requirements, particularly for labelling. Consumers gain from an intensification of competition and a wider choice of some products previously not available in some States, such as game meats.

Moreover, governments now have increased incentives and easier collective means to agree on national standards where it is important to do so. For instance, in the absence of a national standard for the lead content in automotive fuel, petroleum retailers are free to sell fuel produced to any of the widely varying current State standards. But, unlike in the past when a unanimous decision would have been required, a binding national standard can be set now by a majority vote in the relevant Ministerial Council.

The reduction in the barriers to entry for regulated occupations will increase the flexibility of some important labour markets, particularly those for professional services. That said, two problems remain. First, significant legislative entry barriers remain for many occupations in all States, and individual States continue to regulate the practice of similar occupations differently, without cogent reason. This problem has been to some extent addressed by the Hilmer Review. As noted above, the Review recommended that the Trade Practices Act be extended to cover the professions and that other anti-competitive regulation be examined under the auspices of the NCC. The second problem is that entry to some 300 individual occupational groupings is regulated by only some States or Territories. A working group of officials has recommended to Commonwealth and State labour ministers lists of those occupations in this class which should be regulated nationally and those where entry requirements should be broadened or dropped. In the event that these recommendations are accepted, individual governments will need to enact separate legislation.

Negotiations are well advanced for the Australian mutual recognition agreement to include New Zealand, and a future extension to the countries of the Asia Pacific Economic Cooperation grouping is under examination. While expansion of mutual recognition arrangements to other countries raises questions of national sovereignty, considerable benefits for Australia arise from the ensuing increase in trade. Not the least of these is the avoidance of the protracted negotiations involved in trying to achieve detailed harmonisation of product regulatory standards. The essence of mutual recognition arrangements is the willingness of communities to tolerate and benefit from the differences which arise inevitably when separate approaches are applied to similar regulatory problems.

Self-regulation

Broadly defined, self-regulation is the acceptance of mutual obligations by firms in an industry or by members of a profession. These obligations are usually embodied in an industry 'code of practice' or a professional 'code of conduct'. While adopted and administered as an industry initiative, these codes usually complement both Commonwealth and State laws and regulations.

Self-regulatory codes currently deal with a range of matters. According to the TPC (1988, p.4), self-regulation can cover:

- *membership* eligibility criteria, for example, for professional qualifications or type of business activities;
- *geographic coverage*—national, state or local;
- *standards* prescribed for business premises, equipment, training and qualifications, terms and conditions of trading, industrial and consumer safety;
- *complaint-handling procedures* which specify how complaints are to be dealt with and what avenues of appeal are available;
- *product recall procedures* which specify the circumstances in which products should be recalled and the procedures to be followed;
- *representation of industry views* on all matters of concern to the industry or profession; and
- *pricing and costing assistance.*

While many industries and professions have established self-regulatory codes on their own initiative, in some instances they establish them to reduce the political pressure on government to regulate. Indeed, governments have recently encouraged certain industry groups to develop self-regulatory codes to overcome particular problems in the market-place rather than have the government itself regulate to attempt to solve the problem. For example, the television industry has been encouraged to develop a self-regulatory code relating to advertising time limits, although the *Broadcasting Services Act 1992* provides the Australian Broadcasting Authority (ABA) with the power to overturn the industry code if "there is convincing evidence that a code of practice ... is not operating to provide appropriate community safeguards."

This raises the question of when government should regulate and when it should defer to industry to devise its own codes.

Self-regulation can be a less costly alternative to regulation for addressing problems in the marketplace. While regulation has legislative authority, regulatory agencies often have insufficient information to devise appropriate regulation, and government regulation can be costly to enforce and slow to change. Self-regulation lacks legal backing, but can be developed and monitored through existing industry channels and is relatively easily tailored to suit specific geographical or other needs.

The market problems which best suit self-regulation relate to inadequate information. Information may be inadequate where it is misleading, where consumers are unable to evaluate it, where the cost of misinformation is high, or where it is very costly for firms (or professional members) to provide. To overcome these problems, firms (or professional members) may co-operate by, for example, agreeing to information disclosure standards, having their products or qualifications independently certified, or offering low-cost arbitration of disputes.

However, self-regulatory codes will not always be appropriate, particularly where:

- enforcement mechanisms are inadequate. Self-regulation is difficult to enforce because it lacks the backing of legislation. For this reason, self-regulation is most effective in mature, concentrated markets or in markets where consumers largely make repeat purchases. In a concentrated industry, it is easier for other firms to highlight breaches of the industry code. In addition, if the market largely consists of repeat purchases, customers can penalise firms for any divergences from the code.
- self-regulatory codes have the potential to be used as an anti-competitive tool. This anti-competitive effect will be evident in a number of ways: entry restrictions, restricted supply, restricted range of products, increased prices and promotion of the cartelisation of the industry.

In such cases, regulation by government will tend to be preferable to self-regulation by industry.

Regulation review procedures and policy

The ORR review

As foreshadowed in last year's Annual Report, the Industry Commission established a Review of the ORR in early 1993. It was conducted by an external reviewer with staff support from the Commission. The terms of reference required the Review to:

- identify the functions currently performed by the ORR;

- determine the extent to which the ORR's performance helps achieve the Government's regulation review objectives and other objectives embodied in the Industry Commission Act;
- assess whether the ORR uses its resources efficiently and effectively; and
- identify options to improve the regulation review process.

While the Review was conducted against a background of increasing calls on Government to strengthen its regulation review policies and procedures (see below), the Review did not examine these issues; and instead framed its report on the basis that these policies would remain unchanged.

In commenting on the ORR's role, the Review (IC 1993b) stated:

> The ORR fulfils a useful function in encouraging regulatory agencies to pursue an objective of 'minimum effective regulation' and in advising Ministers of the regulatory impact of proposed measures. It also contributes to a wider understanding of regulatory issues, including the economic cost of inappropriate regulation, through its contributions to Industry Commission inquiries and the publication of papers.

However, the Review pointed to several constraints on the ORR's effectiveness:

> ... the ORR's effectiveness is constrained by deficiencies in the existing policy and procedural framework. In practice, the ORR is only able to comment on a small proportion of the total volume of new and amended business regulation. And in many cases, the ORR is consulted too late in the process for its comments to have a significant impact on the adoption or design of the proposed regulatory measure. The ORR's effectiveness is also constrained by the propensity of other Government objectives to take priority over regulation review objectives.

The Review also found that the task presented to the ORR exceeded its capabilities:

> The ORR's charter is an ambitious one and the resources allocated to it have been relatively modest. Inevitably, it has not been able to fulfil comprehensively all the functions ascribed to it...

However, the Review did not consider that this necessarily justified an increase in the ORR's resources.

Subject to the constraints the ORR works under, the Review considered that it was operating well:

> ...the ORR has worked with commitment and vigour. It has developed extensive expertise on regulatory issues, and developed an analytical framework which allows the impact of regulation to be assessed from an economy-wide

> perspective. Consistent with the ORR's underlying charter, and in contrast with the more narrowly focused approach of most regulatory agencies, this framework allows analysis of broad equity, economic efficiency and community welfare considerations. The ORR has been active in identifying key regulatory issues...and has initiated and facilitated reform in several important areas...In addition, it has made an increasingly valuable contribution to the Industry Commission's on-going work, monitored major trends in domestic and international regulation review, and maintained a good working relationship with State regulation review units.

The Review's main concern about the ORR was that it devoted too many resources to its Cabinet role relative to its other functions.

In suggesting ways to increase the ORR's effectiveness within the existing policy and procedural framework, the Review made recommendations in three main areas:

- re-weighting the ORR's work priorities to place greater emphasis on its educative and research role and to adopt a more focused and selective approach to its Cabinet role;
- measures to increase awareness and understanding of regulation review policies within the bureaucracy; and
- measures to raise the public profile of the ORR and regulation review policy.

A copy of the report is available from the Industry Commission.

Proposals for strengthening the regulation review function

Review of national regulatory standards

Intergovernmental co-operation on various social and economic issues is increasing. Governments at all levels have long acknowledged the cost of market fragmentation caused by excessive duplication and overlap of regulation in a federal system. However, effective political means to deal with the problem have been established only in the last few years, the COAG arrangements being the most prominent. This increased co-operation between Australian governments has resulted in the Commonwealth Government being given an increased role in the regulation of firms for a wide range of social and economic purposes — a role which the Constitution and past practice left with the States.

This trend has seen the creation of a number of institutions charged with developing national regulatory standards and, to a lesser extent, strategies for enforcing these standards. The more important national institutions established under Commonwealth/State agreements to rationalise regulation include the National Occupational Health and Safety Commission (Worksafe Australia), the Australian Securities Commission, the NFA, the Therapeutic Goods Administration and the National Registration Authority for Agricultural and Veterinary Chemicals. Negotiations are proceeding with the States to establish an agency to regulate the release of genetically modified organisms and, as mentioned, to establish the NEPA.

A range of legislative and administrative models have been used in establishing the agencies, but they share the common feature that Commonwealth and all State governments are parties to the arrangements. While the agencies have a national character, the Commonwealth Government has a prime role.

However, these developments have occurred ahead of the Commonwealth Government's adoption of comprehensive procedures for vetting new regulatory proposals, of the type used by some States.

This problem will be overcome, should the Commonwealth Government adopt the recommendations of the ARC (1992) report on rule making by Commonwealth agencies (see below), and apply them to national agencies. The issue of the need for nationally uniform standards for the assessment of regulation has been referred by the Victorian government to the COAG committee on regulatory reform.

Review of subordinate regulation

The ARC completed its review of Commonwealth regulation-making and presented its report to the Attorney General on 26 March 1992. The Council recommended the enactment of a new statute, to be known as the Legislative Instruments Act, to control the assessment, making and retiring of all subordinate legislation. It is proposed that the new regime contain the following elements:

- better guidance on matters appropriate for inclusion in Acts of Parliament and matters which can be included in delegated legislation;

- improved practices to ensure high-quality drafting for all Commonwealth rules;
- mandatory consultation with the community prior to the making of important rules;
- 'sunsetting' of all rules on a ten-year rotating basis;
- establishment of a Legislative Instruments Registrar in which all rules should be published (rules would not be enforceable if they were not published in this way); and
- special adaptation of these general procedures for rules of court and rules made under intergovernmental schemes for nationally uniform regulations.

The ARC's proposals extend the Commonwealth guidelines for internal governmental scrutiny of new major regulatory proposals to all subordinate legislation, and they introduce standardised and enhanced public consultation processes. Importantly, the ARC recommended that, should agencies avoid the use of these processes, the regulation should be liable to disallowance by the Senate.

During the development of the 1993–94 budget, the Commonwealth Government decided to postpone for twelve months consideration of the ARC's recommendations, largely because of uncertainty about the cost to regulatory agencies of the implementation of the proposals.

Assistance review

APPENDIX N
DEVELOPMENTS IN SELECTED INDUSTRIES

Special assistance arrangements for certain manufacturing industries continued with some amendments during 1992–93. Assistance arrangements have been revised for selected agricultural industries. Reform programs have been put in place in most jurisdictions for major infrastructure industries. The extent of reforms proposed vary between jurisdictions and in some cases significant delays have occurred in the implementation of reforms.

As part of its annual reporting on industry performance and assistance, the Commission reviews developments in specific industries. The industries are selected on the basis of special assistance arrangements which are in place (and which may not be included in the Commission's measures of assistance in Appendix S), because they have been subject to recent Commission review and government decision or because they are an important area on the reform agenda. The appendix does not attempt to be comprehensive in reviewing reforms or areas awaiting reform.

Industries for which summaries of recent developments in special arrangements are reported in this appendix are:

- industries with special assistance arrangements
  - sugar (p.280);
  - wool (p.281);
  - automotive industry (p.288);
  - pharmaceuticals (p.291);
  - textiles, clothing and footwear (p.293); and
  - dairy (p.296);

- infrastructure industries
  - aviation (p.297);
  - energy supply and distribution (p.301);
  - rail (p.304);
  - road transport (p.308);
  - telecommunications (p.310);
  - water and sewerage (p.315); and
  - waterfront and shipping (p.319).

The Commission normally also reviews, in a companion appendix, developments in general industry policy arrangements: that is, those which are available to more than one industry. Such a review has not been undertaken this year as some important elements — research and development and defence procurement — are to be examined in new Commission inquiries. Export assistance is reviewed in detail in Appendix O.

Industries with special assistance arrangements

Sugar

The Commission's report on the sugar industry was released on 29 March 1992 (findings and recommendations were included in the Commission's 1991–92 Annual Report, Appendix M).

The Government proceeded with its previously announced tariff reductions on 1 July 1992. Also in July 1992, the Minister for Primary Industries and Energy announced the establishment of the Sugar Industry Task Force. The Task Force included representatives of canegrowers, millers, refiners and unions and was chaired by a Queensland member of the Federal Parliament.

The terms of reference for the Task Force were to advise the Minister on:

- impediments to sustainable growth, investment and competitiveness at all levels of the industry: that is, including growing, milling, refining and manufacturing;

- the means for overcoming those impediments so as to develop a growth strategy for the industry, including increased emphasis on value-adding and the potential for refined sugar exports; and
- the appropriateness of future Government support for the sugar industry including tariff arrangements.

The Task Force reported to the Minister in December 1992. On 2 February 1993, the Government announced details of its 'Sugar Package'. A comparison of the recommendations of the Industry Commission and those of the Task Force are summarised below in Table N1, together with the Government's decision. In general, the Government has favoured higher levels of assistance than recommended by the Commission.

Wool

Australia is the world's largest producer and exporter of raw wool. Except for a period of drought and depressed prices in the late 1960s, the wool industry has received relatively low levels of government assistance. Since early 1990–91, the level of assistance has been significantly increased. From 1971–72 to February 1991, the industry operated under government supported marketing arrangements. These arrangements established a grower-financed reserve price scheme which guaranteed growers a minimum price for their wool. The scheme was financed through a tax on wool sales which also funded growers' contributions to research and promotion. At times of low prices, the Australian Wool Corporation (AWC) purchased wool which failed to reach the pre-announced minimum reserve price. The wool was stored until prices improved and it was re-offered to the market.

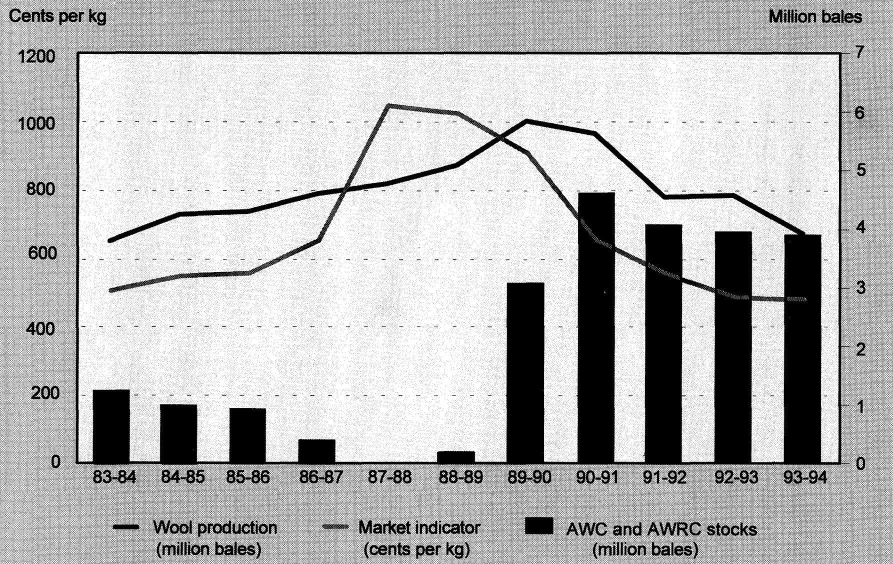
As a result of significant increases in world prices, the minimum reserve price for wool was raised by 70 per cent between 1987 and 1989. During 1989–90, however, the market for wool began to deteriorate. The AWC attempted to maintain the high reserve price through increased purchases of wool. As a result, the AWC's wool stockpile rose dramatically — from 188 000 bales in June 1989 to 4.6 million bales at the end of 1990–91 (Figure N1).

Table N1
Summary of recommendations of the Commission and the Sugar Industry Task Force and the Government's decision

	Commission's recommendation	*Sugar Industry Task Force's recommendation*	*Government's decision*
Production controls — assignment system	Expansion of assignments at 5 per cent each year and following the 1995 season the assignment be abolished.	Assignments system be maintained as a basis for contractual arrangements between millers and growers at a local level.	The assignment system be an industry decision based on land availability and crushing capacity. Expansion decisions to be channelled through the Sugar Corporation, the Sugar Industry Policy Council and the Queensland Minister of Primary Industries.
Division of sugar monies between growers and millers	Negotiated contracts between growers and millers.		Consultation between growers and millers would follow the presentation of the Queensland Sugar Corporation's report in July 1993.
Compulsory acquisition	Domestic acquisition end immediately. Single desk selling for the export market remain to satisfy long-term contracts only.	There was no agreement on whether acquisition should remain, partially removed or abolished. Single desk selling should be retained.	Acquisition for both the domestic and export market remain until 1996 and then be reviewed by the Queensland Government. (This will enable the Sugar Corporation to appropriate the full benefit of the tariff and natural protection available to the sugar industry.)

Two price pooling	Elimination of the 12 per cent price differential between No. 1 and No. 2 Pool prices.	This is an impediment to expansion. Suggestion by millers and canegrowers for a compensation package of $65 million for its removal.	The differential be retained, but reduced to 10 per cent for 1993, 8 per cent for 1994 and 6 per cent for 1996. This to be reviewed by State Government in 1996.
Bulk handling terminals	The ownership of individual bulk terminals in each region be returned to millers and growers and be managed separately.	Terminals should be transferred to the raw sugar industry.	Agreement in principle that bulk terminals become the property of the industry and be managed by a single entity.
Tariffs	Phase down from $55 per tonne to zero by 30 June 1998 while compulsory acquisition retained.	No recommendations. options provided: • freeze current tariff • provide bounty • one-off payment	Tariff to remain at $55 per tonne until July 1997 with tariffs to apply post July 1997 to be reviewed in 1995–96 conditional on $20 million matching State government funding.
Additional assistance			$40 million be provided over 4 years for infrastructure projects such as irrigation and drainage projects.

Figure N1
Australian wool production, stocks and market indicator, 1983–84 to 1993–94[a]



a 1993–94 figures are forecasts.

Source: ABARE (1993 and various issues)

The market indicator for wool (the weighted average price across all micron classifications) averaged 488 cents per kilogram clean in 1992–93 (ABARE 1993), the lowest in nominal terms since 1982–83, and fell to an annual low of 381 cents per kilogram in April 1993. Although debt repayments were readily met in 1991–92, sales from the stockpile throughout 1992–93 were insignificant. The Australian Wool Realisation Commission (AWRC), which inherited the stockpile and debt from the AWC, had an outstanding net debt of \$2.3 billion at 30 June 1992, falling marginally to \$2.27 billion at 30 June 1993. Over 3.9 million bales were held by the AWRC on 30 June 1993 — a 3 per cent reduction from 1991–92 levels. Shorn wool production has declined from its 1989–90 peak but still remains above mid-1980s levels. Shorn production is forecast to fall by about 14 per cent in 1993–94. However the equivalent of one year's production remains in the stockpile.

Government response

Between May 1990 and June 1992, the Government made a number of policy changes in response to the increasing level of wool stocks and the deteriorating financial position of the AWC. These included:

- suspension of the reserve price scheme in February 1991 on the recommendation of the AWC which had suspended wool auctions and, following the recommendations of the Wool Industry Review Committee, abolition in July 1991 of the reserve price scheme;
- an initial increase in the wool tax from 8 per cent to 25 per cent over the period from July 1990 to October 1990 to finance the continuing operations of the reserve price scheme. The tax was subsequently reduced to 12 per cent in July 1991, in recognition of the financial difficulties facing farmers, and was further reduced to 8.5 per cent in June 1992, following the better than expected performance of the AWRC — with a proviso that the tax be increased to 12 per cent if required;
- the establishment of the AWRC, with responsibility for the management of the industry's $2.8 billion debt and stockpile;
- the establishment of a seven year cumulative debt reduction schedule, terminating in 1997–98;
- the introduction of a government guarantee on borrowings for as long as required to eliminate the industry's debt;
- the funding of a $300 million supplementary payment to offset price falls which followed the suspension of the Reserve Price Scheme in February 1991 and covering the period to the end of June 1991;
- the provision of two $22.5 million grants to the AWRC in 1991–92 and 1992–93 to facilitate asset sales;
- the provision of a $400 million credit facility for exports to the USSR; and
- the provision of three instalments totalling $75 million towards wool promotion over the period 1991–92 to 1993–94.

Developments since June 1992

Due to the prevalence of higher than expected prices, the AWRC readily met its debt repayment of $20 million in 1991–92. Throughout 1992–93, the industry faced reduced demand in major markets due to continuing recession in Western Europe and the inability of Russia to finance purchases of wool. Combined with domestic oversupply and overseas stocks of yarn and semi-processed wool, prices fell dramatically. After selling 539 000 bales of wool from the stockpile and repaying almost $400 million in debt in 1991–92, wool stock sales in 1992–93 totalled approximately 114 000 bales. The low sales did not adversely affect the 1992–93 industry commitment to the schedule of debt repayments, as the AWRC had already repaid in excess of the required $300 million. The continuing economic climate, however, threatened the ability of the AWRC to make future repayments.

On 28 April 1993, a Wool Industry Review Committee, chaired by Ross Garnaut, was established to review the wool industry's structures and operational arrangements. In addition to the review, new measures were announced to assist the wool industry. The Government decided to maintain the wool tax at 8.5 per cent due to the financial pressures faced by wool growers, postponing a return to the 12 per cent wool tax for one year. Instead, the debt repayment schedule was extended from seven to eight years and included the removal of any requirement for the Commission to repay debt in 1993–94 beyond the $118 million already in hand for the purpose. The actual debt repayment target was to be determined at the beginning of each financial year by the Government.

The new measures also included Commonwealth funding of up to $44.6 million under the 'exceptional circumstance' provisions of the Rural Adjustment Scheme, allowing an interest rate subsidy of up to 100 per cent for eligible growers. The funding included $5 million of drought assistance to help drought-affected wool producers.

The 1990 recovery package for the wool industry had included a $400 million roll-over credit facility to the former USSR for the purchase of wool, mutton and butter. The credit was backed by an Australian Government credit guarantee provided through national interest provisions of the Export Finance and Insurance Corporation. Credit provided to the USSR for the purchase of wool totalled $271 million. The credit facility broke down as a result of failure of the USSR to make timely repayments. As at June 1993, Russia had repaid $11 million. Further payments are subject to a Paris Club agreement involving country-to-country negotiations.

The Garnaut review

The Wool Industry Review Committee report on the industry's structures and operational requirements was released in August 1993 (WIRC 1993). The Committee identified the following long, medium and short term structural problems.

> The *long term* structural problems are of three kinds: high industry and economy-wide costs in Australia; poor links between growers and all stages of the processing chain; and protection, high costs and fragmentation in processing and consuming countries (WIRC 1993, p.5).
>
> The *medium term* structural problems of the industry are mostly associated with the Reserve Price Scheme and its subsequent collapse (WIRC 1993, p.6).
>
> The *short term* causes of the wool industry crisis are mostly associated with recession in the high-income industrial countries with the recent agonies of the Soviet and then the Russian economies, and with the decline and slow rehabilitation of the former communist economies of Eastern Europe (WIRC 1993 p.7).

The Committee's recommendations to address these structural problems were wide ranging. The Government's response on 8 September 1993 involved the introduction of a number of measures largely in accord with the recommendations. These measures included:

- replacing the AWRC with a commercially-oriented statutory authority called Wool International. Wool International is intended to be privatised on 1 July 1997 with rights to shares being allocated initially to wool growers in proportion to their levy contributions up to that time. Wool International will predominantly be a selling organisation, responsible for the commercial sale of the stockpile based on a fixed disposal schedule, commencing 1 July 1994. Wool International will have limited power to buy wool but only to meet its disposal schedule and will have no special commercial or trading advantages over other organisations. It will not be involved in price support purchases. The organisation will be responsible for developing mechanisms which will spread risk and allow processors to secure future delivery of wool at hedged prices. The Government Guarantee on stockpile debt will cease at the time of privatisation;

- merging the AWC and Wool Research and Development Corporation into a single statutory authority to be known as the Wool Research and Promotion Organisation and limiting its functions to research, development and generic promotion; and
- the introduction of the 'Australian Trade and Investment Package', a program of assistance and overseas development aid. This package, which will focus primarily on China, is aimed at increasing the demand for wool, encouraging the development of wool industries and reducing trade barriers in developing countries. A taskforce will investigate ways of developing closer commercial linkages between the Australian and Chinese wool and wool textile industries.

Automotive industry

Post-1992 assistance arrangements for the automotive industry were announced by the Commonwealth Government in March 1991, as part of its Industry Statement (DPM&C 1991). Details of the plan, which will continue until the year 2000, were reported in the Commission's 1990–91 Annual Report (IC 1991c, Appendix 5). Some changes to the plan, brought about by vehicle classification amendments, were reported in last year's Annual Report (IC 1992d, Appendix H).

The scheduled phasing in of arrangements, aimed at reducing assistance to the industry, continued during the year. There were, however, some amendments to the proposed program. These relate to replacement components and export facilitation arrangements involving New Zealand.

Current arrangements

In 1993, the tariffs on imported vehicles and components are as follows:

- passenger motor vehicles (PMVs) and original equipment (OE) components for PMVs — 32.5 per cent, phasing down to 15 per cent by the year 2000;
- replacement components for PMVs — 15 per cent, retained through to the year 2000;

- light commercial and off-road vehicles, and OE and certain replacement components — 12 per cent, phasing down to 5 per cent by the year 1996. Replacement components for these vehicles which are of a type (or of a kind) capable of being used in PMVs — 15 per cent, through to the year 2000 (see below).

In 1992 the value of plan production was $4.89 billion, imports associated with plan production totalled $1.3 billion and comprised 80 per cent components and 20 per cent completely-built-up passenger motor vehicles. Of these imports, $693.3 million entered duty free under the automatic by-law entitlement arrangements. The remaining $558.9 million of these imports also entered duty free under the Export Facilitation Scheme (EFS). For further information on the assistance afforded to exports via the EFS, see Appendix O.

Developments during 1992–93

Replacement components

Replacement parts for passenger motor vehicles (PMV) were excluded from the general phasing announced in the March 1991 Statement and were to remain at their July 1992 rate of 15 per cent, in a measure designed to assist local PMV component manufacturers. The tariff on similar parts not intended for use in PMV, for example components for light commercial and off-road vehicles, were to be covered by the general phasing from 15 per cent to 5 per cent by 1996 and entered via a special concessional item. However, following the local component industry's representations regarding the potential for significant substitution and Custom's stated inability to police arrangements on an end-use basis, the Government announced in December 1992 that any imported parts of a type (or of a kind) that are capable of being used in passenger motor vehicles would attract the higher general tariff rate of 15 per cent, regardless of the actual intended use of the part (ACS 1993d).

The implication of this decision is to potentially extend the higher levels of tariff assistance to a host of components that are of a kind used in PMV but can also be used in non-PMV vehicles or in some cases even to parts with more general application throughout industry. This includes certain plastic and rubber products, various screws and bolts, bearings and springs which would otherwise have been subject to tariff rates phasing to 5 per cent.

In order to qualify for the lower rate of duty, importers must now be able to demonstrate that a particular component because of its size, specification or part number is designated for use only in non-passenger motor vehicle applications, and further that it cannot be used to directly substitute for a PMV replacement part. The onus and administrative burden has thus been placed on importers and a considerable degree of discretion granted to Customs in determining the applicable rate of duty.

EFS arrangements re New Zealand

The Government's original decision in March 1991 was that export credits would not accrue under the Export Facilitation Scheme (EFS) for exports of completely-built-up and completely-knocked-down vehicles to New Zealand, but that the situation regarding components would be the subject of further negotiation. In December 1992, the Governments agreed on a list of 'designated' components (ie those that are produced in New Zealand) which are to be excluded from export credit accrual when shipped to New Zealand (eg batteries, tyres, glass, seats, springs).

The assistance implication is a reduction in the implicit export subsidy for these components in comparison to the previous EFS arrangements applying to automotive exports to New Zealand.

Development Allowance

A Bill to amend the Development Allowance Authority Act 1992 was introduced into the Senate on 27 May 1993. This Bill proposes to extend the development allowance to the automotive industry as well as print production projects in the print media. The allowance supplements depreciation charges and applies to new projects with a capital cost of $50 million or more, but is only available on the plant and equipment component of the investment. Under existing arrangements, firms in an industry receiving substantial assistance or protection were specifically excluded from applying for this additional depreciation allowance.

The Bill proposes that all automotive project applications submitted by the due date of 30 September (or 28 days after Royal Assent) be subject to competitiveness tests in relation to work practices and input pricing in determining their eligibility for the allowance. The extension of the allowance to the automotive industry is estimated to cost $9 million in 1994–95, $10 million in 1995–96 and $9 million in 1996–97.

Commonwealth funding of research joint venture

In December 1992, Ford, Toyota, Mitsubishi, and parts makers Nissan, Castalloy and Southern Aluminium joined forces with the CSIRO in a $2.2 million joint venture research project to improve the industry's aluminium die casting technology and boost its machined-casting export performance.

The Commonwealth Government is contributing more than $760 000 to the project, via a generic technology grant under the GIRD program.

Passenger Motor Vehicle — Labour Adjustment Package (PMV– LAP)

Some $11.18 million was provided to retrenched motor vehicle workers under the PMV-LAP scheme during 1992–93. These payments provided such things as wage subsidies to employers, funding retraining of retrenched workers and relocation costs. Most of the PMV-LAP payments were accounted for by workers affected by Nissan's closure of its local car assembly operations in Melbourne in October 1992.

Pharmaceuticals

Under the Pharmaceutical Benefit Scheme (PBS), the Commonwealth government utilises its market power to reduce prices of listed drugs — these account for almost 80 per cent of the value of the pharmaceutical market. The resulting lower prices are intended to benefit pharmaceutical consumers.

Factor f

By reducing the returns to manufacturers, the PBS pricing policy is claimed to discourage pharmaceutical production and research in Australia. As a consequence, the Government established the 'Factor f' scheme in 1987 to encourage domestic drug production, exports and research. Under Factor f, approved companies receive compensatory payments — in the form of higher prices for selected products listed on the PBS — in return for commitments to increase domestic product development, research and local manufacture.

In 1992, the Commonwealth increased its funding commitments to the scheme. In addition, the entry provisions were widened. Currently, eligibility for Factor f depends on the net benefits and the relative international competitiveness of the proposed activity. The Pharmaceutical Benefits Pricing Authority (PBPA) assesses the eligibility of applicants. Prior to 1992, the eligibility criteria were closely linked to potential export and import replacement performance. Currently, the specific criteria for entry are:

- a commitment to increase the value added in Australia on pharmaceutical production by 50 per cent in 3 years; and/or
- achievement of research and development spending equal to 3 per cent of annual turnover (DITAC 1992).

In addition, where a company is unable to meet the specific criteria, the PBPA may recommend entry into the scheme on qualitative grounds. These may include, for example, new investment in production facilities, expenditure on R&D projects and active ingredient manufacture (DITAC 1992).

As a result of these changes, payments are expected to rise to $150 million per annum by 1998–99 — when the current program is scheduled to end. For the period 1988 to 1992, the average annual outlay on Factor f was only $14.3 million (Auditor-General 1993a, p.6).

On granting entry into the Factor f scheme, the PBPA and the new entrant establish performance targets for which additional price payments will be paid. These payments are then paid quarterly, based on the participant's reported performance in the previous quarter (PBPA 1992).

In 1991–92, the ten scheme participants received a total of $26.3 million. By the end of 1992–93, the number of Factor f participants had increased to seventeen. However, while total compensation payments for 1992–93 were anticipated to rise to $65.1 million, actual outlay by government for the period was $52.0 million. Payments are estimated to rise to $130 million during 1993–94.

In 1992–93, the Australian National Audit Office (ANAO) reviewed the Factor f scheme, as it operated in June 1992. The ANAO reported that, although the scheme has resulted in increased pharmaceutical production and research, the increase was approximately 55 per cent of the level forecast by participants. It found (Auditor-General 1993a, p.vi) that:

> Some companies have a shortfall in achieving pro-rata performance targets, indicating they may have difficulties in meeting the targets within the agreed

> timeframe... This situation led to concern by the ANAO about the need to seek repayments, withhold payments and grant extensions of time.

It was recommended by the ANAO that guidelines be developed to ensure quarterly payments take account of the proportion of targets actually achieved, procedures be developed for dealing with a failure to meet performance targets on completion of the agreements and various other improvements in administrative arrangements be implemented. The Department of Industry Technology and Regional Development accepted the majority of recommendations made by the Auditor-General.

After being established in March 1992, the first meeting of the Consultative Forum took place in June 1992. Since June, the Forum has concentrated on:

- the possibility for greater flexibility in price reviews of PBS listed drugs;
- the authority to prescribe for products priced $30 or more which limits prescribing of more expensive drugs;
- the development of guidelines to allow the PBPA to take into account wider industry development ramifications when setting prices; and
- producing a vision and strategy for the development of the pharmaceutical industry into the 21st century.

Textiles, clothing and footwear

The textiles, clothing and footwear (TCF) plan was announced in 1986 and began full operation on 1 March 1989. The aim of the plan is to improve the efficiency and international competitiveness of TCF industries by decreasing border protection and providing adjustment assistance to firms and employees. Significant changes to the plan were announced in the 16 July 1992 Industry Statement. A number of these changes were implemented in 1992–93.

The Industries Development Strategy (IDS) provides structural assistance to firms covered by the TCF plan. It is to operate until 29 February 1996, with tariff phasing scheduled to the year 2000. Total funding for the IDS over the life of the plan is currently set at $160 million.

Quotas were abolished on 1 March 1993. Bounty payments will end by the year 2000, at which time the maximum tariff applying to TCF industries will have fallen from the current level of 47 per cent to 25 per cent. Even with these reductions, however, TCF industries will still be the most highly protected in Australia. The effective rate of assistance for all manufacturing will be only 5 per cent, while the textile industry will receive effective assistance of 22 per cent and clothing and footwear will receive effective assistance of 50 per cent.

Major developments in 1992–93 include:

- quotas ending on 1 March 1993;
- administrative changes to the Import Credit Scheme;
- the commencement of the phasing out of tariff preferences for some countries;
- changes to the TCF policy by-laws, following a review by the TCFDA;
- the Overseas Assembly Provisions scheme was introduced; and
- the Further Wool Processing program was initiated.

Tariff quota ended

TCF quotas were abolished on 1 March 1993. By restricting the amount of imports available to be sold in Australia, quotas allowed higher prices to be charged for TCF goods. Thus quotas, like tariffs, had a taxing effect on consumers. In 1992, importers were willing to pay a price premium of up to 23 per cent in order to purchase the right to import quota goods. The abolition of quotas is a significant step in reducing assistance to TCF industries.

Changes to the Import Credit Scheme

The Import Credit Scheme was introduced on 1 July 1991. It gives exporters import credits equal to 30 per cent of the value added in their exports. These credits may then be used to offset, on a one-for-one basis, the duty payments on imported TCF goods. As they are transferable, a market has emerged for the trade of credits. In 1991–92, over 80 firms exported nearly $228 million worth of products earning them over $31 million in credits; and duty revenue forgone was over $26 million (TCFDAa 1992). Further information regarding the Import Credits Scheme is contained in Appendix O.

Changes made to the Import Credits Scheme in 1992–93 included:

- the commencement of phasing down of the scheme's 30 per cent accrual rate, which was initially due on 1 July 1993, was rescheduled for 1 July 1996;
- a one-year extension of the final application lodgment date to 30 June 2001 and an extension of the allowable period for use of credits by 7 months to 30 September 2001;
- the relaxation of the $50 000 minimum application threshold; and
- making a number of goods ineligible for credit including exports for use in an Australian Government agency (eg an overseas embassy) and sales from duty free stores or domestic 'over the counter' sales (ACS 1992, 1993b and 1993c).

Abolition of certain tariff preferences

On 1 July 1992, the preferential tariff rates for Hong Kong, the Republic of Korea, Singapore and Taiwan were frozen at their current level (ACS 1991). On 20 February 1993, the Government announced that developing country preferences would be removed for all but the South Pacific Forum Islands and 49 of the least developed countries and regions for a number of commodity categories including textiles, clothing and footwear (ACS 1993e). The developing country rate was frozen at its pre-July 1993 level. As announced in the 1992 TCF Industry Statement, the Canadian rate of duty for carpets has been frozen at the pre-March 1993 level until the general tariff rate of duty falls to the same level (ACS 1993b).

The general rate will apply in cases where the general rate is greater than or equal to the frozen rate.

By-law review

On 31 December 1992, the TCFDA completed a review of the textile and clothing policy by-laws (TCFDA 1992b). The TCFDA determined that such by-laws, which allow duty free or low duty entry for certain finished and intermediate goods, are in accordance with the Government's policy on the TCF industries.

The Government announced (ACS 1993a) a number of changes to the TCF by-laws in response to the TCFDA review, including:

- the consolidation of a number of old items into a newly created and expanded item 40A;
- the new item 40A is duty free and replaces the 8 per cent duty applying to the old item 40E; and
- an increase in the ratio of imported goods to locally produced goods in the taffeta by-law from 1:1 to 3:1.

Overseas Assembly Provisions scheme introduced

The Overseas Assembly Provisions (OAP) scheme was introduced in the 1992 TCF Industry Statement. It began operation on the 1 March 1993 and will operate for a trial period of three years. It allows participating firms to assemble pieces of apparel overseas and then import the finished product back into Australia and only pay duty on the value added in the assembly process. To qualify for the scheme, firms must use only Australian materials in the garment, although imported fabric may be used for up to 15 per cent of the Australian fabric content, provided it is cut in Australia. Unlike the Import Credit Scheme, the export and import of pieces and garments must be by the same firm, and the duty savings are non-transferable.

Further Wool Processing program

The Further Wool Processing program was initiated in June 1992, with applications closing on 22 June 1993. The scheme gives financial assistance for post-scouring wool processing. In 1992–93, two applications for assistance were approved for a total of $11.1 million in grants and $15 million in low interest loans.

Dairy

Historically, the Australian dairy industry has been highly assisted by both Commonwealth and State arrangements. The latest Commonwealth assistance scheme, known as the Crean Plan, was introduced in July 1992. There have been no changes in this plan since its announcement. This new arrangement replaced the Kerin plan which was introduced in 1986.[1] The Crean plan contains a market support scheme on exported dairy products.

1 For an explanation of the Crean plan, and the Kerin plan it replaced, see the Commission's 1991–92 Annual Report, Appendix H.

Details of this export assistance scheme are provided in Appendix O and assistance estimates for the dairy industry are reported in Appendix S.

State arrangements regulate most operations in the fresh milk market, including pricing, milk sourcing, distribution and processing. Although State governments are committed to maintaining minimum farm-gate prices for fresh milk they are currently in the process of deregulating some aspects of the non-farm sections of the dairy industry — retailers, distributors and processors. For example, in NSW, processors, retailers and vendors will operate in unzoned markets after 1 July 1997. In Victoria, after 1 July 1995, there will be no controls on milk pricing beyond the farm gate.

Infrastructure industries

Aviation

Australian aviation continues to adjust to a less regulated domestic environment and to developments in the international arena which are allowing airlines to bring together their international and domestic operations. Several concerns have been raised in the last year regarding the performance of the Commonwealth Government's GBEs involved in provision of airport infrastructure, air navigation services and air safety regulation.

Deregulation of domestic aviation

Domestic passenger activity has increased substantially since October 1990, when the Commonwealth's formal regulation of interstate aviation ended. A record 18.3 million passengers were carried on Australian domestic airlines' routes in the twelve months to 31 March 1993, but the rate of growth has fallen significantly in comparison with the previous two years. With little growth in economic activity generally, the aviation market appears to be stabilising after the stimulus of deregulation.

The revived Compass Airlines — which in its original form had collapsed after one year of operation — flew interstate routes for less than seven months before ceasing operations in early March 1993. The Bureau of Transport and Communications Economics (BTCE 1993) has suggested that the company's underlying difficulties largely mirrored those of its predecessor and did not result from control of travel agency networks, computer reservations systems or terminal facilities by the two incumbent airlines. The BTCE reported that Compass airlines faced both lower than anticipated yields and higher than anticipated start-up costs leading to critical liquidity crises. The BTCE argued that Compass was unable to penetrate the business market satisfactorily and that the airline underestimated its relative disadvantage in competing for full-fare passengers.

Although air fares rose after the collapse of the first Compass operation, they have not at any stage returned to pre-deregulation levels. Monitoring of air fares by the Prices Surveillance Authority (PSA) showed that fares at the end of March 1993 were on average 24.5 per cent lower in nominal terms and 28.4 per cent lower in real terms than before deregulation. The number of passengers travelling on premium fares has continued to decrease while usage of full economy and particularly discount fares has increased.

In reviewing the period since deregulation, the BTCE (1993) has claimed that, despite the failure of Compass and the reduction in profits sustained by the other carriers, there have been annual net gains in economic welfare of an estimated $100 million. The BTCE noted that there have been clear gains to consumers in almost all aspects of pricing and service quality and improvements in productivity.

Australia's government-owned international flag-carrier, Qantas, bought the government-owned domestic carrier, Australian Airlines, in 1992, resulting in considerable rationalisation of employment in both airlines (which are now moving towards trading under the one banner — Qantas). British Airways paid $665 million for a 25 per cent share in the expanded Qantas. The float of the remaining 75 per cent of Qantas has been postponed. Qantas commenced limited domestic services in November 1992 by offering package deals to fill surplus seats on domestic legs of its existing international services.

*Intra*state air services remain partially regulated in Queensland and Western Australia and are extensively regulated in Tasmania. New South Wales has lessened entry restrictions on some major intrastate routes in the last twelve months and permitted open competition on 'thin' routes relinquished by existing licensees.[2] Several newcomers entered the market, but on the open 'thin' routes many have ceased flying — possibly as a consequence of the inconsistency in permitting open competition on these routes while enforcing varying degrees of regulation on other 'thin' and major routes. In New South Wales, deregulation will occur in 1996 upon expiry of existing licences for air services.

International developments

In its first year, the International Air Services Commission (IASC) has allocated capacity rights on international aviation routes to Ansett Airlines and Qantas, as well as to the new-start carrier, Australia Air (to China). Ansett Airlines is proceeding with plans to phase in services on tourism and high-yield business routes in the Asia-Pacific.

Despite having already gained rights to service several New Zealand cities, Ansett Airlines is not expected to begin trans-Tasman operations until 1994. There have been claims that the delays are due to negotiations on customs and immigration matters and commercial considerations. Legislation has been passed in Australia and New Zealand covering immigration procedures although the practical arrangements are still being finalised. Meanwhile, inter-governmental talks continue on the possible establishment of a single aviation market with New Zealand, with a Memorandum of Understanding already signed agreeing in-principle to the establishment of a single trans-Tasman aviation market. Outstanding issues include fifth freedom rights (the access of foreign airlines to the trans-Tasman routes) and certain issues involving terminal access.

Commonwealth provision of airport infrastructure, air navigation services and air safety regulation

The Commonwealth Government is reviewing its commitment, announced in February 1993, to allocate $113 million for the construction of common-user terminal facilities at Sydney, Melbourne and Coolangatta airports. This follows the second collapse of Compass Airlines and the absence of other new entrants. Other developments such as Qantas' acquisition of Australian, the proposed establishment of a common Trans-Tasman aviation market and Ansett's entry into international routes have blurred

2 A thin route can be defined as a route in which a small number of persons are carried.

the distinction between airlines' international and domestic operations. The Federal Airports Corporation (FAC) will now negotiate on terminal facilities with airlines on a commercial basis.

Following the release of the Industry Commission's report on intrastate aviation, the Commonwealth Government, in November 1992, directed the PSA to report on the FAC's pricing of aeronautical and non-aeronautical activities. In its final report released in August 1993, the PSA found that the FAC has a monopoly on aeronautical charges (where aeronautical charges are more broadly defined under the FAC Act 1983) and significant market power over non-aeronautical charges. It recommended that the FAC adopt efficient pricing principles, including greater use of specific prices for specific services, location-based aeronautical charges and appropriate peak and shoulder charges to reduce congestion at airports such as Kingsford Smith in Sydney. The PSA also considered that individual airports should endeavour to recover costs through pricing. If this was not possible, consideration should be given to other measures including assessment of whether community service obligations are associated with particular airports and the level of airport services provided. The PSA also criticised the investment decision-making process of the FAC and recommended changes, including economic evaluation of investments and analysis of the consequences for user charges of full cost recovery of investments. The PSA also recommended that the Industry Commission undertake an inquiry into structural issues relating to the organisation of Australian airports (PSA 1993).

The Civil Aviation Authority (CAA) has been under scrutiny on several fronts. An independent review was established to examine the CAA's tender evaluation process for The Australian Advanced Air Traffic System (TAAATS), following complaints about the process used to select the preferred contractor. The review, chaired by Mr Ian McPhee, found that the original selection process was soundly based, but was departed from in a manner which was both unsound and unfair.

The report of the Study Group on the Safety Regulation and Standards Division, chaired by Mr Alan Terrell, noted concerns regarding the impact of commercialisation on regulatory areas of the CAA. Terrell recommended that the future funding base for the Division needed to be addressed as the highest priority. A key feature of the CAA Board's response to the Terrell report was the formation of a Directorate of

Aviation Safety Regulation. The Directorate will have broader powers and consolidate all of the CAA's safety regulatory functions within one area. The CAA is developing a long-term funding strategy for cost recovery in safety regulation, for implementation in July 1994. With the assistance of independent economic consultants, the CAA is examining the impact on the aviation industry of various mixes of charges and aviation industry specific taxes.

In terms of delivery of Air Traffic and Rescue and Fire Fighting Services, the CAA's commercial achievements have been significant. Real costs to the aviation industry have consistently fallen over recent years. The CAA expects that total industry charges will reduce by $109 million dollars in real terms in 1993–94.

Energy supply and distribution

There has been a number of developments over the last 12 months aimed at improving the efficiency of Australia's electricity and gas industries. However, progress has been slow in implementing several initiatives which would boost efficiency — including some required to increase competitive pressures. Some of the more significant events are summarised below.

National electricity grid

The development of a national electricity grid (which, in the first instance, would encompass New South Wales, Victoria, Queensland, South Australia, Tasmania and the ACT) is a central element in the reform process for the electricity supply industry in Australia. However, full implementation of the National Grid Management Council (NGMC) proposals have been rescheduled for July 1995 — two years later than originally planned.

If a competitive market for electricity supply is to evolve, arrangements relating to ownership, structure and management of the grid must promote non-discriminatory access. The clear separation and independent ownership of the transmission assets of the various authorities is consistent with this end. However, at the June 1993 Council of Australian Governments (COAG) meeting, agreement on this issue remained unresolved. In particular:

- The South Australian Government rejected a proposal for the separation of electricity transmission from its generation and distribution assets. Pending the resolution of cost issues associated with full separation, the Government indicated it may be willing to place its transmission assets in a subsidiary of the State electricity authority.
- The Tasmanian Government reserved its position. It is currently conducting a review of the electricity industry within the State.
- The remaining Governments, which agreed to vest their respective authorities' transmission assets into separate corporations, gave an undertaking to consider taking this process a stage further by amalgamating the grid corporations into a single transmission body.

To help ensure the interests of all shareholders are considered, the Commonwealth Government also proposed membership of the NGMC be extended to include a representative from the distribution authorities, industrial users and unions. The proposal was rejected by the State Governments, but will be reconsidered at the next meeting of the COAG.

Privatisation

Another key element in the reform process for the gas and electricity industries was expected to be greater private sector involvement — particularly in the area of electricity generation. Several existing operations were slated for privatisation, while contracts for new plant were let to private concerns. More recently, however, progress in this area has been mixed. Major developments over the last year include:

- The Western Australian Government has abandoned efforts to establish a privately-built, owned and operated power station at Collie, in the State's south-west, following private sector reluctance to proceed with funding of the project. It now intends to proceed with a publicly-owned power station, due for completion by the end of the decade.
- The Tasmanian Government, after failing to reach agreement on a satisfactory sale price has ceased negotiations with Comalco Ltd on the possible sale of certain assets of the Hydro Electricity Commission of Tasmania.

- The Queensland Government has agreed, conditional on the sale being finalised by the end of 1993, to sell the Gladstone power station to Comalco Ltd for $750 million.
- US-based Mission Energy has increased its holding in Victoria's Loy Yang B power project from 40 to 51 per cent. The first unit of the power station is expected to be completed by the end of 1993.
- The Victorian Government recently announced the sale of the Heatane division of the GFCV to New South Wales-based Elgas Ltd.

Restructuring

In August 1993, the Victorian Government announced a major restructuring program for the Victorian electricity industry. As a first step, the SECV is to be divided into three new and separate GBEs comprising generation, transmission and distribution. The Government will then examine the advantages of further splitting generation (for the purpose of introducing competition in generation) into a number of independent businesses holding one or more power stations and later consider privatising one or more generators. The transmission business (a natural monopoly) will remain in Government ownership, but operate as a common carrier. The Government will also consider restructuring the distribution sector into a number of separate regional businesses.

In Western Australia, a recent Government-commissioned report (Carnegie 1993), has suggested the separation of SECWA's gas and electricity operations. It also recommended separation of electricity generation and transmission.

Corporatisation and commercialisation

In general, governments have increasingly accepted the benefits of corporatisation and commercialisation. For example, in Queensland, the electricity supply industry will progressively adopt corporatisation principles by January 1995. The operations of the Queensland gas pipeline are expected to be corporatised during 1995.

The electricity authorities in New South Wales and Victoria have adopted new tariff structures which reduce cross-subsidies from business to domestic consumers. In New South Wales, for example, the Government

Pricing Tribunal has frozen residential tariffs, while allowing a 4 per cent decrease in prices for industrial and commercial users.

Interstate gas trade

Following its 1991 National Gas Strategy, the Commonwealth Government has recently proposed the development of a regulatory framework designed to promote interstate trade in natural gas. A central element of this reform is the implementation of provisions for open access to major gas pipelines such as the Moomba-Sydney line. According to the Federal Minister for Resources (Lee 1993, p.1), the new framework will ensure that:

> ... subject to spare pipeline capacity being available, pipeline owners and operators are able to provide access to potential third party pipeline users on commercially negotiated terms and conditions.

Despite these developments and an undertaking by governments at COAG to develop "gas markets on commercial criteria and remove impediments to free and fair trade in gas", the South Australian Government has indicated that it will continue to restrict the interstate sale of ethane gas. This has resulted in significant delays for ICI Australia Ltd in developing its Sydney plant. ICI continues to seek a supply of ethane gas from the Cooper Basin in South Australia. To date, however, the South Australian Government has refused to release the ethane supplies. This reflects South Australian concerns about gas reserves, the impact of the proposal on other petrochemical projects and the availability of interstate natural gas supplies.

Rail

The most important events in rail reform in 1992–93 were the commencement of operations of the National Rail Corporation (NR) and the beginning of significant rail reform in Victoria.

Reform of the government-owned railway systems continues slowly. Nevertheless, progress in some areas is evident, particularly in those systems which the Commission identified in its rail inquiry as having the greatest scope for improvement — SRA (State Rail Authority of NSW), QR (Queensland Railways) — excluding coal — and PTC (Public Transport Corporation of Victoria). Reforms in SRA and QR have been underway for some time, but major reform in PTC — the least efficient of the rail systems — did not commence until 1993.

Reforms in all systems are driven by a commercial approach and require increased productivity, which is being achieved by elimination of excess labour, upgrading of infrastructure and capital equipment to best practice, and increased use of outside contractors. Redundancy payments are a major cost in some systems.

There are plans to corporatise QR and Westrail by about 1995. State Governments are increasingly making explicit community service obligation (CSO) payments to railways, particularly for passenger services, rather than hiding subsidies in deficit funding. CSO payments, mostly for country passenger services, are now made to SRA, PTC, Westrail and AN, and are about to be introduced for QR.

The National Rail Corporation (NR) commenced operations on 1 February 1993, several months behind schedule. The major holdups were the time taken to negotiate a 'greenfields' enterprise agreement with the unions, and for Western Australia to pass legislation which ratified its signing of the Shareholders Agreement (Western Australia subsequently did not become a shareholder). Agreement on the enterprise agreement triggered the release of about $454 million of One Nation (Keating 1992) funds for upgrading the interstate rail network and the Commonwealth's shareholder contribution of $171 million for 1992–93. In 1992–93, NR received $64.1 million for One Nation projects and $162.7 million for the Commonwealth's equity contribution. Due to the (design and logistical) delays, the Commonwealth Government decided in November 1992 to reallocate $150 million of One Nation rail spending to other projects.

NR has control of marketing and freight management for interstate rail freight, and related terminal management (except in Western Australia), but it is too early to assess its performance. It will gain control of rollingstock and linehaul operations over the next few years. During 1993–94, NR is to commence the takeover from other systems of the relevant terminal, locomotive and rolling stock assets, with the task to be completed during 1995–96. The transfer and/or lease of physical infrastructure (track, structures, signals and communications) is yet to be resolved.

NR is a fully commercial enterprise, incorporated under the Corporations Law, liable for the full range of Commonwealth and State taxes and subject to no regulatory arrangements more onerous than those applying to private sector businesses. The shareholders are the Commonwealth and the States of NSW and Victoria.

The National Rail Enterprise Agreement and Award was certified in March 1993. The Electrical Plumbing Union is contesting the agreement, with IRC hearings scheduled for September 1993. The enterprise agreement comprises:

- a reduction in the number of unions operating within the NR from around 30 to two — the Australian Services Union and the Public Transport Union;
- a significant revision and restructuring of work practices with an emphasis on multi-skilling and work teams;
- simplification of allowances by consolidation of penalty rates, annual leave loading and other allowances within the salary structure; and
- payment for overtime based on total hours worked over a three month period.

In recognition of the expected productivity improvements, NR's employees are to receive a pay rise of 8.5 per cent over two years and an employer superannuation contribution of seven per cent of salary.

In NSW, the SRA continued to introduce competition by contracting out a number of key functions. In particular, it awarded a contract to a private firm to supply and maintain 84 locomotives which will be leased by SRA on a per-kilometre basis. Work has commenced on redeveloping the Enfield site to provide a single rail freight terminal for Sydney. It will be used by both SRA and NR and completion is expected in 1994–95. SRA is spending $125 million on new XPT trains, including sleeper cars, new XPLORER trains and refurbishment of existing XPTs. It receives funds for CSOs for country passenger services, freight services and Trackfast (small freight).

The NSW Department of Transport is investigating the feasibility of privatising the rail haulage of Hunter Valley coal.

In Victoria, the new Government, soon after its election in October 1992, proposed a $245 million reduction in the overall cost of public transport. This would be achieved by structural reforms and changes in work practices, as well as greater use of contracting out and the termination of some services. In response, the rail unions negotiated an agreement that many PTC services would be retained on the condition that the proposed cost savings would be met by productivity gains. The agreement contains references to benchmarking and the achievement of international best practice. It was accepted that staff numbers must decrease, that restrictive work practices had to be removed, and that a considerable amount of work could be contracted out. It remains to be seen if the objectives will be met. Over the year to 30 June 1993, PTC employment (which includes urban rail passenger services) decreased from 18 667 to 14 603.

Rail passenger services are to be retained on at least six country rail corridors, of which two will be operated by private firms. There will be driver-only operation of passenger train locomotives, where this is most cost effective, and reductions in country station staff. The intention is to achieve full cost recovery in freight, by means of driver-only operation of trains, rationalisation of country rollingstock, maintenance depots, reduction in corporate overheads, retirement of older locomotives and rationalisation of shunting operations.

In Queensland, rail freight charges for coal have included an undisclosed ‘coal royalty’ component for some years. The Government is working towards full separation of coal royalties and freight charges. Over the next few years, royalties will be increased above existing levels (5 per cent of ex-mine value of production for open cut export coal, 4 per cent for underground export coal, $0.05 per tonne for coal consumed in Queensland) and freight charges generally will decrease to commercial rates. Discussions are still in progress, but the next changes will apply to renewals of existing contracts, whereas previously announced interim royalties, known as ‘resource utilisation charges’, applied only to new mines and expanded output from existing mines where new commercially-based rail contracts were in place. During the past 12 months two new export coal mines, with a combined annual output of 7 million tonnes, commenced operations under the new arrangements.

Queensland has upgraded some of its country passenger trains (eg the Spirit of the Outback to Longreach), with a clear focus on the tourist market. The Government planned to close little-used branch lines, but is reviewing this decision following strong opposition from local communities. QR is spending $526 million over five years on upgrading its locomotives, wagons and tracks, particularly between Brisbane and Cairns.

This will reduce travel times, increase axle loads, and reduce maintenance costs. It also announced the consolidation of its five major workshops into just two upgraded facilities. It is continuing rationalisation of its small freight operations and the number of freight centres.

In Western Australia, Westrail is positioning itself in the market in readiness for deregulation. The newly elected Government announced that Westrail is to be restructured, with an emphasis on business units and business principles, in readiness for corporatisation within two years. Rationalisation of its operations includes reducing staff in its headquarters and closure, during 1993–94, of the uneconomic Midland workshop, with some of the further work to be undertaken by the private sector. The Government decided to withdraw as a shareholder from NR, although it still fully supports the concept.

Australian National (AN), the Commonwealth Government owned railway, will lose the majority of its assets and business to NR. The Commonwealth re-affirmed its decision on 27 July 1993 that all of AN's interstate rail freight business, including ore traffic from Broken Hill to Port Pirie and its licences for interstate Roadrailer services, will be transferred to NR when requested by NR to do so. Its remaining responsibilities are for intrastate services in South Australia and freight services in Tasmania (subject to agreements made with those States in 1975), some interstate passenger services (Indian Pacific, Ghan, Overlander) and contracting to NR a range of workshop and other services. The Commonwealth has decided to extend its commitment to fund Tasrail operations until June 1995. There will be a further review of AN in 1995.

AN has become the single manager of the Indian Pacific transcontinental passenger service. With a Commonwealth injection of $12 million for refurbishments over the next two years, it expects to cover operating costs by 1994–95, just as it does now for the Ghan. Nevertheless, three studies indicate that these services are not expected to cover full costs.

Road transport

The National Road Transport Commission (NRTC) was established in 1991 following an intergovernmental agreement on heavy vehicles. The NRTC was directed to recommend heavy vehicle charges, develop nationally consistent technical standards and uniform operating procedures for licensing drivers and registering vehicles. In May 1992, the NRTC was requested to extend its work to the development of uniform regulations for light vehicles.

Since its establishment, the NRTC has been progressing the development of uniform road transport regulation. The NRTC prepares regulatory impact statements for major initiatives, so as to ensure that the full costs and benefits of proposed new legislation are fully considered. The NRTC is consulting with interested parties over national legislation currently being drafted. The legislation is intended to provide an overall framework for stand-alone modules covering such issues as vehicle standards, Australian design rules, vehicle operations, heavy vehicle safety, vehicle registration, driver licensing, dangerous goods and performance measuring. State Governments are scheduled to introduce complementary legislation early in 1994.

Heavy vehicle charges were developed in 1991–92 and approved by majority vote of the Ministerial Council for Road Transport in August 1992. The NSW and Western Australian Governments opposed the charges at the 14 December 1992 meeting of the council of Federal and State ministers overseeing the work of the NRTC. Disagreement over the methodology used to allocate road costs (as approximated by annual expenditure) to heavy vehicles underlies the opposition to the recommended charges. NSW is concerned that the charges are too low and will result in an unacceptable loss of revenue. Western Australia objects to the NRTC charges on the grounds that they are too high. The Commonwealth proceeded to draft legislation with a view to implementing uniform charges by 1 July 1995. The Road Transport Charges (Australian Capital Territory) Act, received royal assent on 27 May 1993. It gives effect to the NRTC's charges only in the ACT, but is intended as a model for complementary legislation in other jurisdictions.

The Commonwealth believes ongoing refinements to cost allocation and charges — including the introduction of a mass-distance component — are essential to improving efficiency and equity. The Commonwealth has the constitutional powers to implement a national charging regime on interstate traffic. However, it would be difficult to administer without the co-operation of all States. To become operational, complementary legislation will have to be passed by State governments by 1 July 1995 if the timing schedule set out in the intergovernmental agreement is to be met.

The delay in the implementation of reforms of road-use charges for heavy vehicles has important implications for efficiency of road transport. It is important that there is a direct linkage between the road service provided and the true cost incurred by users. The inequity in the current level of charges is a major impediment to allowing vehicles to carry higher loads. Road authorities will not be disposed toward allowing operators to carry increased loads until they are paying for all their road-use costs. Road provision is a significant economic activity in its own right and correct charges will assist efficient investment decisions.

Telecommunications

In November 1990, the Minister for Transport and Communications announced a package of reforms to promote network competition in the telecommunications industry. Full competition will not be introduced until 1997. In the interim, duopoly arrangements will apply.

A number of elements of the package have already been introduced, including: the enhancement of the independent regulatory body (AUSTEL); the merger of Telecom and OTC; the sale of Aussat; the licensing of a second carrier (Optus); network access and interconnection arrangements; competition in the mobile phone market; price cap regulations; legislation for community service obligations; and new industry development arrangements. Details of these were provided in the Commission's previous two annual reports (IC 1991c and 1992d).

Important developments in the reform process during 1992–93 include:

- guidelines for determining market dominance;
- network extension by Optus;
- pre-selection ballot;
- mobile telephone licences;
- community service obligations;
- industry development arrangements; and
- interventions by the Trade Practices Commission.

Guidelines for determining market dominance

AUSTEL (1993, p.38) has released its guidelines for determining market dominance. The regulatory authority will use five criteria, with different weightings, to determine whether a carrier is in a position to dominate a market:

- the degree of market concentration and the market shares of firms (high weighting);
- the capacity of a firm to determine prices for its services without being consistently inhibited in its determination by other carriers (high weighting);
- the extent of barriers to entry, that is the ease with which new firms may enter and secure a viable share of the market (low weighting);
- the extent to which services of the market are characterised by product differentiation and sales promotion (low weighting); and
- the character of corporate relationships and the extent of corporate integration (low weighting).

Network extension by Optus

Under the Optus Carrier License, Optus must meet certain deadlines for the progressive extension of its network, termed 'network roll-out'.

In January 1993, Optus was called on to explain to AUSTEL its apparent failure to meet the first network roll-out condition by 31 December 1992 (Table N2). The carrier claimed it had interpreted the Act differently to AUSTEL and had provided services to 45 per cent of the population that had access to caller line identification. AUSTEL ruled that the carrier should calculate roll-out percentages on the basis of Australia's total population. Optus has now met the first roll-out condition.

Pre-selection ballot

In August 1991, the (then) Minister for Transport and Communications determined that preselection by subscribers of a carrier (with override codes for the other carrier) was essential to allow equal access to the carriers. AUSTEL determined that a ballot should be used to determine pre-selection after the two carriers failed to agree on a pre-selection process. The ballot began in Canberra on 15 July 1993. It will be extended to other capital cities and regional centres as Optus services become available.

Mobile telephone licences

The third mobile telephone licence was awarded to Arena GSM (now Vodafone), a British backed consortium, in December 1992 for $140 million.[3] It will commence services in September 1993.

As part of its industry development plan, the carrier has promised to: create 5 000 jobs; establish its Asia-Pacific regional headquarters in Australia; spend about $25 million on R&D over three years; build a research and development centre in Adelaide; and spend 60 per cent of its capital expenditure on local goods and services. Licence conditions stipulate that the company must convert to majority Australian ownership by December 2002.

No further entrants to the mobile phone market will be considered until 1997, although full resale of current licences is permitted.

Table N2
Timetable for Optus network extension

Deadline	*Optus must have offered and be in a position to supply domestic long distance and international services to:*
31 December 1992	not less than 45% of Australia's total population
31 December 1993	not less than 65% of Australia's total population
31 December 1994	not less than 68% of Australia's total population
31 December 1995	not less than 72% of Australia's total population
31 December 1996	not less than 80% of Australia's total population
31 December 1997	100% of Australia's total population

Source: Optus Carrier Licence

3 Telstra and Optus hold the other two licences.

Community service obligations

Specific carrier obligations, often called community service obligations, are prescribed as part of the *Telecommunications Act 1991*, the General Telecommunications Carrier Licences and the Telecommunications (General Telecommunications Licence) Declarations (Nos 1 and 2) of 1991.

There are currently five prescribed carrier obligations:

- the universal service obligation;
- prompt identification and repair of faults;
- provision of accurate call charging;
- continued access to untimed calls made using the standard telephone service; and
- Optus' General Carrier Licence obligations.

The most significant prescribed carrier obligation is of universal service, which obliges a carrier to ensure that the standard telephone service and also the payphone service is reasonably accessible to all people in Australia on an equitable basis, regardless of geographic location. Telstra has been declared to be the universal service carrier. Optus is required to provide capacity for certain telecommunications services as a condition of holding a licence.

To prevent carriers which supply the universal service obligations from being commercially disadvantaged, the Act (Part 13, sub. 287) provides that:

> the losses that result from supplying loss-making services in the course of fulfilling the universal service obligation should be shared among carriers on an equitable basis, namely, in the direct proportion to each carrier's share of the interconnect time.

At the end of 1992, AUSTEL (1992) announced procedures whereby carriers can claim reimbursement of loss making areas associated with the universal service obligation. It has developed four tests to determine whether a loss making service area should be declared as a net cost area for claim purposes.

- Is the service being provided and incurring a loss on a standard telephone service or a payphone service?

- Is the sole reason that the service is being provided to meet the universal service obligation?
- Is the service being supplied efficiently? and
- Is the loss being calculated using the avoidable cost method specified by the Act?

If all these conditions apply, the service area is declared a net cost area. Once AUSTEL has agreed to a carrier's claim that an area is a net cost area, the carrier may lodge a credit claim which is assessed by the regulatory authority before authorising the release of funds from the Universal Service Fund trust account to the carrier.

Industry Development Arrangements

In July 1989, the Federal Government established Industry Development Arrangements (IDAs) to encourage the development of dynamic, export-oriented telecommunications supply and information industries. As part of their licence conditions, carriers are required to submit, to the Minister for Industry, Technology and Regional Development five-year industry plans outlining their commitment to local industry. The carriers must notify the Minister of any variations to their plans and of any development which is likely to affect their implementation. Optus and Telstra must also report to the Minister at the end of each financial year until 1998 on progress made in implementing their industry development plans.

Industry Development Arrangements for customer premises equipment seek to encourage firms to increase local content, research and development and exports with the objective of integrating the firms into the world market. The arrangements were due to expire on 30 June 1993, but have been extended for a further three years to allow time for customer enterprise suppliers to adjust to a more competitive environment in the provision of network services after 30 June 1996. Some of the details of these arrangements have been revised. For example, the points allocation system will now permit companies to move between the IDAs and the Partnership for Development program of Fixed Term Arrangements.

Interventions by the Trade Practices Commission

AUSTEL has formally referred to the Trade Practices Commission (TPC) several matters relating to predatory pricing, refusals to deal, misleading advertising and unconscionable conduct. For example, in September 1992, AUSTEL accused Telecom of abusing its market power by cross-subsidising its tele-marketing business by at least $1.1 million in 1991–92. When Telecom disputed AUSTEL's finding, the TPC was called in to investigate whether the subsidy prevented or reduced competition. However, the carrier abandoned its tele-marketing business before TPC investigations were completed.

The TPC has investigated several complaints against both Telecom and Optus for misleading and deceptive advertisements comparing carrier charges in the lead up to the pre-selection ballot.

Water resources and waste water disposal

In September 1992, the Commission released its report into this sector. The Commission had been asked to identify ways of revising arrangements which lead to unsustainable and inefficient resource use. In its report, the Commission said that the pace of reform should be increased, with emphasis on pricing, cost recovery and greater accountability for service providers.

Pricing reform

Reforms to the pricing of water services have been progressing since 1977, when Western Australia introduced a degree of user-pays pricing. The Agriculture and Resource Management Council of Australia and New Zealand has found that over the five years to 1991–92, average charges per customer, including special levies, increased by about nine per cent in real terms (ARMCANZ 1993).[4]

A number of States have moved further towards user-pays pricing and reducing the cross-subsidy between domestic and commercial users over the last year. The Victorian Government has announced changes which moved Melbourne closer to a user-pays system and away from linking

4 The Australian Water Resources Council was recently amalgamated with the Agricultural Council of Australia and the New Zealand and the Australian Soil Conservation Council to form the Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ). This new Council comprises Ministers from the Commonwealth, States and Territories responsible for agriculture, soil and water resource management. It is the peak forum for consultation, cooperation and liaison for the development of policy on natural resources management.

charges to property values. These pricing changes run alongside reforms to reduce costs, including increased contracting out and reductions in staff levels.

The Western Australian Government has stated its commitment to achieving a full pay-for-use/pay-for-service system. Water rates based on property values will be replaced by charges based on meter size and the volume of water consumed. This combined with a reduction in charges to metropolitan businesses, will remove subsidisation of other water users by business.

The NSW Government Pricing Tribunal (1993) has announced a move to a greater reliance on user-pays charges. At present, 11 per cent of the average household water bill in Sydney is calculated according to water usage. Under the new determination this will increase to 33 per cent for average use. The average amount consumed, however, may well decline due to price increases.

The revenue previously collected through the special environmental levy will be collected via the higher usage prices, giving an incentive to reduce water consumption. It is expected that the resultant water saving will allow major capital works such as the Welcome Reef Dam to be deferred.

Charges to non-residential users based on the value of their property will be reduced. According to the Pricing Tribunal, this will result in the current cross-subsidy of $300 million from Sydney Water Board's business users to residential users being reduced by $60 million. The lower revenue received from the business sector will be partly offset by proposed reductions in operating costs and capital expenditure.

The Tribunal has proposed also that trade waste charges be separated into a charge which reflects the costs to the water supplier of treatment and disposal and an environmental tax which is designed to discourage discharges and reduce adverse environmental consequences. It proposed that the tax element be determined by the Government on advice from the EPA.

Water charges have also been increased in the Northern Territory and South Australia.

So far, only Hunter Water has implemented usage charges for domestic disposal of waste water into the sewerage system.

The ARMCANZ (1993) has reported increased average costs in metropolitan water authorities. Factors contributing to increased costs include: improved sewerage disposal systems, particularly in Sydney; the introduction of improved water treatment in South Australia; and redundancy payments for the shedding of staff. The ARMCANZ sub-group review (p.27) states:

> ...while much energy has gone into cost reductions, increased expenditure on quality of service has meant that consumers, through their annual charges and payment of environmental levies, have had to meet the cost of higher quality of service. In addition, it is likely that the increased requirement of state governments for returns on equity held in water utilities is applying pressure on charging levels.

The review (p.47) also raised concerns about the cost implications of improved waste water disposal:

> ... in areas such as more sophisticated sewerage treatment, the impact on costs is potentially very substantial.
>
> For example, the annualised cost of moving from current levels of sewerage treatment to full nutrient removal could be as high as $1 billion per annum, which would equate to an increase in total cost per service of around $300 per annum ...
>
> It is clearly very important that if commitments are made to a sustained program of improvement in standards, consumers are made aware of the long term financial commitments that will be required.

The diverse nature of the non-metropolitan sector inhibits summary interpretation of reforms. Progress in reforming prices of irrigation water generally lags behind the urban sector. Some steps have been taken to develop trade in water entitlements. The NSW Department of Water Resources has negotiated new water entitlements with sales from the enlargement of Glenbawn Dam in the Hunter Valley. There has been agreement to inter-valley transfers from the Murray and Murrumbidgee River systems to the lower Darling River Valley on a trial basis, and in-principle agreement has been reached for interstate transfers between NSW and Victoria.

Institutional and administrative reform

On 30 June 1992, the first stage of the Melbourne Water Corporatisation Bill was proclaimed. The corporation still needs to have legislation passed on its commercial and operational powers.

Since then, the State Government has enacted the *State Owned Enterprises (SOE) Act 1992.* It is the legislative instrument to implement the Government's corporatisation and privatisation program. Melbourne Water is to be brought under the provisions of the SOE Act, but final decisions about corporatisation have not been announced. Meanwhile, action is in hand to achieve administrative reforms.

In its July 1993 submission to the NSW Joint Parliamentary Select Committee on the Water Board, the Sydney Water Board also stated that corporatisation would assist in clarifying its roles and accountabilities for financial, environmental or social matters.

The South Australian Government proposes to merge the Department of Engineering and Water Supply and the Electricity Trust of South Australia. Subject to legislation being passed, the newly merged body will be a statutory authority, called Southern Power and Water. The provisions of the State Government's Public Corporations Act will apply to the authority. Pursuant to this Act, the authority will have a charter and performance agreement.

The NSW Minister for Land and Water Conservation announced the commencement of procedures to privatise the Gumly Gumly Irrigation Scheme on the Murrumbidgee River near Wagga Wagga. Other irrigation areas are currently being assessed as to their suitability for privatisation.

Reform to resource management

There is growing acceptance that users of water must take account of the environmental impact of water use and disposal.

In June 1993, the Council of Australian Governments affirmed its commitment to a coordinated national strategy for water quality and asked:

> ... a working group of officials, with an independent chair, to develop and report on a strategic framework for efficient and sustainable reform of the water industry, which, at the same time, takes account of the technical and policy diversity that exists across the States and Territories (COAG 1993, p.3).

The Commonwealth Environment Protection Agency is also addressing the improvement of water quality, notably through the National Water Quality Management Strategy, a Commonwealth-State initiative. A central platform of the strategy is to encourage community involvement in making choices about the uses of water resources, given the various trade-offs and costs involved in achieving different levels of water quality suitable for chosen activities. It is envisaged that community decision-making will be facilitated through the use of integrated catchment management committees.

The Murray-Darling Basin initiative is an example of the integrated, whole catchment approach. It provides a forum and legislative mechanism whereby the views and interests of the States and the Commonwealth can be discussed and trade-offs to accommodate conflicting interests can be formulated. During the last year, the Murray-Darling Basin Ministerial Council agreed on a common basin-wide approach to water property rights, transferable water entitlements and water pricing. A system of salinity credits has been devised, whereby States can better manage the drainage to the river system. In June 1992, Queensland became a signatory to the Murray-Darling Basin Agreement. The ACT Government has not become a full member.

New South Wales is investigating trade in water pollution credits in two areas. In the Belubula River Catchment, the NSW Department of Water Resources is investigating tradeable rights as a means of reducing nutrients, especially phosphorus.

Several management schemes to address salinity in the Hunter Valley have been investigated jointly by the NSW Environment Protection Agency and the Department of Water Resources. The alternative schemes are based on the tradeable rights concept and have tended to focus on areas with the greatest impact on river salinity (eg mine water discharges).

Waterfront and shipping

In mid-to-late 1989, the Government initiated three-year programs to reform Australia's waterfront and shipping sectors. The programs involved reducing stevedoring labour, reforming work practices on the waterfront, reducing crew numbers on Australian vessels and retraining seamen. In addition, consultations about reform of port authorities at the State/Territory level were announced.

Stevedoring reform

In September 1989, an In-Principle Agreement (IPA) was signed by the Australian Council of Trade Unions (ACTU) and the Association of Employers of Waterside Labour — spelling out the principles for a negotiated, orderly implementation of change in waterside employment structures, work and management practices, training and career opportunities and a reduction in the number of unions. The IPA was endorsed by the Commonwealth Government in October 1989. The waterfront reform process was implemented under the auspices of the Waterfront Industry Reform Authority (WIRA), established in 1989 and formally wound down in November 1992. Thus, the formal program for waterfront reform has come to an end.

Progress on reform

The IPA provided for a net reduction in the stevedoring workforce of 2000 (3000 voluntary redundancies less 1000 younger recruits). The Commonwealth provided $154 million for redundancy packages and retraining on a dollar-for-dollar basis with industry. A central feature of the program was the progressive introduction of enterprise-bargaining agreements (EBAs) to replace industry-wide arrangements.

Over its lifetime, WIRA approved a total of 70 EBAs in Australian ports. Enterprise employment now covers the five major ports of Sydney, Melbourne, Brisbane, Adelaide and Fremantle, which account for about four-fifths by tonnage of Australia's total non-bulk trade. Various solutions have been developed for Australia's regional ports in order to eliminate cross-subsidisation from the larger ports and to improve waterfront efficiency. These have included separate enterprise agreements and integrated port labour forces (WIRA 1992).

Through voluntary redundancy/retirement arrangements, the size of the waterfront workforce has more than halved to less than 4000 persons since the reform program began. A single skills-based award now applies, replacing 21 previous awards and agreements.

WIRA commenced a review of the three-year reform program in April 1992, as required under the IPA. A final report was presented to the Government in late 1992, signalling the winding up of the program.

The benefits of reform

WIRA regularly monitored reform in the stevedoring sector. It reported an average increase in containers handled per crane hour at container terminals from 12.8 TEUs at the beginning of the program to 18.7 TEUs in the June quarter 1992. Increases in handling rates for general, non-containerised cargo of between 40 and 60 per cent have occurred. Ship turn-around times and truck queuing times have also been reduced, as has time lost through industrial disputes. Stevedoring charges have generally declined by 20 to 25 per cent during 1992 (WIRA 1992).

In 1992, the Prices Surveillance Authority inquired into land-based charges levied in Australian ports by ocean carriers and conferences. It examined the basis for establishing land-based charges, and whether reductions in stevedoring charges arising from reforms to the stevedoring industry were being reflected in these land-based charges. The PSA's report, released in August 1992, found that substantial benefits have been obtained by direct users of stevedoring services (eg shipping lines) in the form of both price and non-price benefits. The PSA concluded that stevedoring charges had declined over the last two years but, although there was some evidence of cost reductions being passed on to shippers (approximately 12 per cent over fourteen months), not all of the benefits had flowed through. Shipping interests have, however, strongly disputed this last conclusion.

A recent report from the Bureau of Industry Economics (BIE 1993c) examined the performance of the Australian waterfront in handling a number of key cargoes relative to observed world best practice. The study found that the timeliness and reliability of Australian waterfront services have improved considerably in recent years. However, analysis of the operating efficiency of parts of the Australian waterfront indicated that performances were mixed: in some cases, performance was at or near observed best practice, while in others it fell well short.

Shipping reform

In November 1988, the Commonwealth Government established the Shipping Reform Task Force to report on the scope for further improvements in the efficiency and competitiveness of the Australian shipping industry. The Task Force recommended that a program be introduced to reduce the size of crews on new and existing ships, with redundancies and retraining to be financed jointly by the Government and industry. The Government adopted such a program, and the Shipping Industry Reform Authority (SIRA) was established for three years from July 1989 to oversee its development and implementation.

The Government retained the policy of cabotage (under which coastal trade must be carried in Australian-licensed vessels), but the flexibility of the permit system for using foreign ships on the coast was increased.

Progress on reform

A major part of the shipping reform strategy was the reduction in crew levels. The average level has fallen from 34 in the early 1980s to about 21 in February 1993. Over the three-year program, the Commonwealth Government contributed toward 729 voluntary early-retirement packages taken up by seafarers, at a total cost to the Government of \$17.5 million and to shipowners of \$42 million. The Government also contributed \$9 million towards retraining (SIRA 1992b).

The relaxation of coastal voyage permit guidelines has seen an increase in the number of single voyage permits (SVPs) issued. In 1989–90, a total of 88 SVPs were issued, rising to 307 (about 900 000 tonnes) in 1992–93. However, this represented only about 2 per cent of total coastal trade in that year. No continuous (multiple) voyage permits were issued during 1992–93.

With the conclusion of the three-year program in June 1992, SIRA reported to the Government on the results of the program and options for future reform (SIRA 1992a). It recommended that continuing reform of the Australian shipping industry be expedited and that the Government, through SIRA, maintain its involvement in an ongoing reform process. In April 1993, the Government announced the extension of SIRA, together with a new reform package to further improve the efficiency and competitiveness of Australian shipping through crewing reductions and a reassessment of employment practices. The new program aims to reduce crewing levels to an average of 18.5 by the end of 1993 and 16.25 by the end of 1995. This is anticipated to result in labour productivity savings of up to \$50 million a year. The Government is to contribute \$25.3 million towards voluntary retirement packages and training.

No specific proposals were announced for the towage sector.

In April 1993, the Government announced a review of legislation affecting Australia's international liner cargo services (ie Part X of the Trade Practices Act). The review includes matters identified by the PSA as potential impediments to shippers maximising gains from the Government's maritime reforms. The review is to be completed by 31 October 1993.

The benefits of reform

In February 1992, the PSA released its first report on the monitoring of coastal shipping freight rates. The main conclusion was that, while it was difficult to apportion the reductions in freight rates between the effects of the shipping reform process and current economic conditions, reductions appeared mainly to reflect the downturn in the economy and the increase in capacity in some trades. The Government has asked the PSA to extend its monitoring of coastal shipping freight rates until mid-1996 to ensure the reform benefits flow through to users.

Port authority reform

The structures, objectives and functions of Australian port authorities differ widely between and within States/Territories. While much of the waterfront and shipping sectors have been undergoing substantial reform Australia-wide, port authority reform has largely been pursued State-by-State.

Port authorities generally have improved efficiency by rationalising their activities, reducing the range of services they provide and contracting out activities. As a result, total employment fell from 7 400 in June 1988 to around 4 200 in June 1992, a reduction of 43 per cent (IC 1993d).

Most State governments have introduced elements of corporatisation for port authorities. For example, a number of port authorities are now setting target rates of return and have commercially-focussed, accountable boards. Some changes in port pricing arrangements have been made in recent years, with increased emphasis given to user-pays pricing and the elimination of cross-subsidisation. An example of this can be seen in South Australia where the Department of Marine and Harbours is to have its community service obligations funded by direct budgetary payment.

Port authority charges in Australian ports are much higher than those for similar cargoes and ships overseas (BIE 1993c). There are several possible reasons for this: for example, traffic volumes and revenue bases in many Australian ports are comparatively small; some governments in Australia require their ports to cover costs and to pay dividends; and some port authorities are required to fund community service obligations.

In May 1993, the Industry Commission finalised its report into Port authority services and activities. It recognised that the performance of many port authorities has improved as a result of changes over recent years, but considered there is still a long way to go. The Commission recommended that, as a priority, governments determine which functions can be most efficiently carried out by each of their port authorities. In most cases, this would mean following the landlord model, contracting out core activities wherever that is cost-effective, and divesting non-core activities to private enterprise.

The Commission concluded that irrespective of the particular services and activities which a public port authority provides, the institutional framework in which it is placed and the requirements imposed on it by government can have an important influence on whether it operates efficiently. It considered that the incentives for port authorities to become more efficient would be increased if they were placed in a 'corporate' environment, and recommended a number of initiatives to that end. Other recommendations covered a range of matters including efficiency within ports, pricing, work practices, and the benefits of a national approach to reform (Appendix U).

APPENDIX O
EXPORT ASSISTANCE

Government assistance to exporters exceeds $1 billion per annum. This estimate is conservative, since it includes only an indicative estimate of the assistance provided by the passenger motor vehicle Export Facilitation Scheme and excludes both the States' contribution and the export-assisting components of EFIC's National Interest Business scheme and the least transparent assistance schemes such as the Partnerships for Development program.

Programs specifically designed to facilitate exports account for about 60 per cent of quantifiable export assistance. These include the passenger motor vehicle Export Facilitation Scheme, the Export Market Development Grants scheme, export finance and insurance, export marketing, intelligence and promotional services, and duty draw back and by-law for exports. Programs that target multiple objectives, including exports, account for the remainder. Programs in this category include bounties, the dairy product market support payments, the Factor f scheme for pharmaceuticals and the Development Import Finance Facility.

Export assistance favours some industries more than others — principally, producers of elaborately transformed manufactures. The manufacturing sector, as a whole, receives around 85 per cent of the assistance provided through Export Market Development Grants. It is also well represented in AUSTRADE's overseas marketing and promotional efforts and in services provided by the Export Finance and Insurance Corporation.

The Commonwealth Government's program of structural reform is contributing to an increase in the internationalisation and efficiency of the economy. Tariff assistance for import competing industries, which hinders the competitiveness of export industries, has been lowered and further reductions are scheduled. Other aspects of microeconomic reform, such as the commercialising of government business enterprises, will also lead to increased efficiency throughout the economy.

At the same time, the view of policy advisers and government that trade, particularly exports, should be facilitated has become more pronounced. For example, Argy (1993) called for a policy and incentive framework

Table O1
Commonwealth export facilitation and assistance, 1991–92 to 1993–94 ($ million)

	1991–92	*1992–93*	*1993–94*
SPECIFIC EXPORT FACILITATION AND ASSISTANCE PROGRAMS			
Export finance and insurance services			
EFIC's government guarantee	13.3	10.2	10.2
Export Finance Facility interest subsidy	10.9	9.4	7.6
National Interest Business (NIB)	ne	ne	ne
Export marketing, intelligence and promotional services			
AUSTRADE: International Business Services	110.7	119.8	127.0
Asia Pacific Fellowship program	3.9	3.2	3.3
Australia in Asia program	–	1.5	14.8
Australian Tourist Commission	69.5	74.5	77.1
Australian Wool Corporation: wool export promotion	32.1	25.0	20.0
Clean Food Export Strategy	–	..	3.0
Export Access	1.0	4.2	6.2
Export development schemes			
Export Market Development Grants	134.0	148.0	209.7
International Trade Enhancement Scheme	20.7	20.8	31.7
Innovative Agricultural Marketing Program	4.5	3.8	3.7
Operating expenses related to above	5.3	5.7	7.9
Trade facilitation schemes			
Passenger motor vehicle Export Facilitation Scheme[a]	151.0	195.5	181.6
TCF Imports Credits Scheme	26.8	74.3	74.0
Duty and excise drawback	59.1	68.8	68.0
TEXCO By-law for export concession	37.7	26.3	26.0
Sub-total	**680.5**	**791.0**	**871.8**

skewed in favour of productive investment, exports and saving. Similarly, following a recent review of emerging exporters by McKinsey (1993) the Government has widened a number of programs to encourage exports from small to medium enterprises.

With the current prominence given to exports and export assistance, a stock-take of the forms of assistance to exporters is warranted. This appendix reports on Commonwealth assistance currently being provided to Australian exporters. It describes, and where possible quantifies, the major export assistance programs.

Table O1 (continued)

	1991–92	*1992–93*	*1993–94*
EXPORT COMPONENT OF MULTIPLE OBJECTIVE PROGRAMS			
Bounty assistance			
Computers	34.0	34.2	35.6
Machine tools & robots	2.5	1.4	1.2
Shipbuilding	20.2	21.2	23.0
Photographic film	12.0	6.0	–
Export assistance in other programs			
Dairy product — market support payments	148.0	141.1	144.1
Pharmaceuticals — Factor f	16.2	32.2	80.0
Partnerships for Development	ne	ne	ne
TCF Industry Development Strategy			
– Further Wool Processing program	–	5.9	6.4
– Incentives for International Competitiveness program	–	ne	ne
Development Import Finance Facility	98.0	120.0	120.0
Private Sector Linkages program	–	5.0	6.0
Other export assistance in Overseas Development assistance	ne	ne	ne
Sub-total	**330.9**	**367.0**	**416.3**
Total	**1011.4**	**1158.0**	**1288.1**

ne not estimated.
.. less than $100 000
a 1991–92 estimates are an average of calendar year data, the 1992–93 estimate reports 1992 calendar year data, and the estimate for 1993–94 is based on 1992 use of credits and the tariff rate applying in 1993.
Source: Commonwealth Budget Papers, relevant Departmental Annual Reports and Program Performance Statements and Commission estimates

In 1992–93, assistance provided to Australian exporters via the more transparent Commonwealth programs stood at $1 200 million and is estimated to rise to $1 300 million in 1993–94 (Table O1).[1]

In addition to Commonwealth programs, a number of export assistance programs, usually involving the provision of export promotional services, are undertaken by the States and Territories. A study by McKinsey (1990) estimated the annual value of export assistance provided by the States and Territories at little more than $40 million — less than five per cent of the annual value of export assistance provided through Commonwealth programs.

State governments may also indirectly assist exports through a range of policies which may not be explicitly labelled as export assistance. These policies could include subsidies on intermediate inputs provided by government owned enterprises (such as water and electricity). As evidenced by a recent report by the Victorian Commission of Audit, these subsidies can be significant. It was identified that the value of the subsidy to aluminium producers in Victoria was $195 million in 1992–93 (VCA 1993, p.371).

Whilst input subsidies can facilitate exports, the converse is also true. Input prices which do not reflect least-cost provision can impede exports. Due to the difficulty in quantifying the level of assistance involved in activities where there is no clear alternative benchmark price, the subsidies and penalties associated with these pricing policies are also excluded from the estimates reported in this appendix.

Export assistance programs

Australian exporters receive assistance via a wide range of Commonwealth government programs. The programs can be divided into two broad classes. The first category covers programs which are specifically designed to provide export assistance. The second category covers a

1 The level of export assistance provided by the programs is not always apparent. In many cases, the budgetary costs related to a scheme are reported, although these costs do not necessarily equate to the assistance provided to exports. In other instances, the export-assisting effect of a given program is not only unrecorded in Budget Papers, annual reports, and the like, but is also difficult to estimate from available data.

disparate range of schemes with multiple objectives which either directly or indirectly assist exports.

Specific export assistance programs

Specific export assistance programs may be classified under four broad headings that reflect different forms of government intervention and use of policy instruments:

- export finance and insurance services, subsidised to varying degrees, and provided via the Export Finance and Insurance Corporation (EFIC);
- export marketing, intelligence and promotional services provided to firms at less than full cost recovery by the Australian Trade Commission (AUSTRADE) as well as a number of other government agencies;
- export development schemes involving direct financial transfers to firms, administered by AUSTRADE; and
- trade facilitation schemes including the TEXCO by-law and duty drawback arrangements and the passenger motor vehicle (PMV) and textile clothing and footwear (TCF) schemes. These two latter schemes are designed to encourage intra-industry trade (Appendix G).

The Commission estimates assistance provided via these programs at $680 million in 1991–92, rising to $790 million in 1992–93, and to an expected $870 million in 1993–94 (Table O1).

Export finance and insurance services

An exporter selling on terms which are not risk free may choose to bear the risk or take out export credit insurance and pay a premium which reflects the risk. In other instances, finance may be required to enable a sale to proceed. EFIC was established by the Commonwealth government over 30 years ago to provide such insurance and finance. Many other governments provide similar services to exporters. A rationale for these agencies is that exports can be increased by the government accepting a higher level and variety of risk than exporters or private insurance companies.

> EFIC's charter specifies that it provide services which complement those provided by the financial markets, or provide services where none otherwise exist. This charter involves EFIC supporting some export transactions which would not normally be supportable in a purely commercial operation dependent for survival on returns commensurate with both the risk undertaken and the opportunity cost of capital committed (EFIC 1992, p.12).

In 1991–92, EFIC supported exports to the value of \$4 900 million. Manufactured goods accounted for 54 per cent of the total value of goods insured. Traditional commodity exports, including wool, wheat, iron and coal, made up a significant proportion of the remaining business.

EFIC has a number of commercial advantages over private sector insurance and finance agencies which allow it to reduce the cost of its services. These include:

- a government guarantee; and
- access to additional concessional finance through a Commonwealth government Export Finance Facility subsidy and the Commonwealth's National Interest Business (NIB) scheme.

The government guarantee

EFIC, like a number of other government owned enterprises, benefits from a government guarantee on its borrowings. The guarantee enables EFIC to obtain loans at interest rates lower than those available to similar private firms. By obtaining concessional credit, EFIC's own premiums and charges can be levied on more favourable terms.

Deriving an indicator of assistance to exports through EFIC's government guarantee involves assuming that EFIC can borrow at the government bond rate and comparing this notional rate with the interest rate that would be charged on equivalent unguaranteed commercial loans. In 1991–92 and 1992–93, the benefits attributable to the government guarantee are estimated to be in the order of \$13 million and \$10 million respectively.[2]

2 The approach used to measure the assistance to exports from the Commonwealth Government guarantee is similar to that used for measuring assistance from the government guarantee on the Australian Wool Realisation Commission's borrowings. As at 1 July 1991, EFIC's borrowings related to its commercial account, amounted to \$960 million and, as at 30 June 1992, borrowings related to this account were nearly \$2 400 million. Estimates for the period 1991–92 to 1993–94 assume EFIC's average borrowing level is an average of the 1991–92 opening and closing balances.

Export Finance Facility subsidy

The Export Finance Facility within EFIC's commercial account provides concessional loans in conformity with the terms of the OECD Arrangement on Officially Supported Export Credits. The difference between EFIC's borrowing rates and the concessional lending rates is covered by a subsidy ($10.9 million in 1991–92, $9.4 million in 1992–93 and an estimated $7.6 million in 1993–94).

National Interest Business (NIB)

In certain circumstances EFIC may find that a contract involves too high a risk, but is otherwise eligible for support. These cases are referred to the Commonwealth Government. If the Government judges the contract to be in the 'national interest', EFIC is authorised to undertake the business on behalf of the Commonwealth. The greatest volume of this business has historically related to export sales to high-risk markets which involve important industry or trade considerations. For the eight months ended 30 June 1992, over 60 per cent of the NIB related to wheat, wool and mutton (EFIC 1992).

EFIC records NIB transactions under a separate 'Commonwealth account'. The Government bears liability for pay-outs on insurance claims, borrowers' defaults, interest payments on its borrowings and so on, whilst revenues (premiums, fees, recoveries, etc) are returned to the Commonwealth. The net budget cost of NIB in any given financial year is recorded in the Budget Papers as assistance for that financial year. For each year in the period between 1979–80 and 1989–90, the budget entry for NIB was in credit. Since 1990–91, net budget outlays have been in deficit — $226.5 million in 1990–91, $243.7 million in 1991–92 and $53.9 million in 1992–93. Budget estimates for 1993–94 indicate the NIB account is expected to incur deficits of approximately $30 million per annum until 1996–97.

If export credit insurance premiums do not reflect the true risk of the transaction, the insured will receive additional assistance. However, outlays associated with insurance pay-outs are not a good proxy for the level of assistance provided through concessional insurance. The level of assistance associated with NIB insurance would be more accurately represented by the difference between the actual premium paid and the premium at which another insurer would be willing to take on the risk. Information constraints have precluded an estimate of export assistance being made on this basis.

Export marketing, intelligence and promotional services

AUSTRADE, supported by the Department of Foreign Affairs and Trade, is the main government provider of export marketing, intelligence and promotional services to Australian industry. These services include export counselling and export planning assistance, market research and in-market support, information and publishing services, trade displays, exporter education, and sponsorship of the Australian Exports Awards. The net budgetary cost of operating AUSTRADE's International Business Services was $120 million in 1992–93.

AUSTRADE's International Business Services also assists Australian companies to develop Asian export markets through the Asia-Pacific Fellowship Program. According to Cook (1993, p.12), this program assists companies by "placing key managers and graduate employees in Asia to study language and gain hands-on experience of local business practices and culture". AUSTRADE, along with a number of Commonwealth Government Departments, is also involved in delivering services under the Australia in Asia program.

The Australia in Asia program is a combination of Asia-related initiatives announced by the Government in March 1993. These initiatives are designed to increase Australia's involvement with Asia and facilitate Australia's trade within the Asian region, through improving business information and networks and increasing knowledge of Australia in Asia and of Asia in Australia. It is expected that, by 1996–97, over $60 million will have been outlayed on the program. Outlays for 1993–94 are estimated at $14.8 million.

In addition to these programs, export marketing, intelligence and promotional services are also provided by a number of other government agencies. Including the government-funded component of the Australian Tourist Commission's budget, the government-funded component of the Australian Wool Corporation's promotional budget, the Department of Primary Industries and Energy's Clean Food Export Strategy, and the Department of Industry, Technology and Regional Development's Export

Access program, the current annual cost to the Government of these various non-AUSTRADE services is around $100 million.

Export development schemes (direct financial transfers)

AUSTRADE also administers a number of export development schemes. The major programs are:

- the Export Market Development Grants (EMDG) scheme;
- the International Trade Enhancement Scheme (ITES); and
- the Innovative Agricultural Marketing Program (IAMP).

The budgetary appropriation for these schemes stand at around $250 million for 1993–94 — an increase of nearly $75 million on 1992–93 outlays. Assistance via export development schemes — particularly the ITES — is expected to rise in the coming years as a result of the Government's response to the McKinsey (1993) report.

The EMDG scheme accounts for the greater part of the expenditure. In 1992–93, EMDG outlays totalled $150 million and estimated expenditure for 1993–94 is $210 million. Although the scheme is available to a wide range of industry groups, the manufacturing sector (covering both simply and elaborately transformed goods) receives approximately 85 per cent of the EMDG grants.

The EMDG program aims to encourage small to medium sized Australian companies to develop overseas markets for goods, specified services, industrial property rights and know-how, and it does so by providing eligible exporters with retrospective taxable cash grants to cover part of their initial marketing expenses. The scheme is not available to companies with export earnings over $25 million in the relevant financial year. Prior to 1992, firms could seek support for a maximum of eight years. Eligibility under the scheme was extended in 1992. The extension to the scheme allows a firm, seeking entry to new export markets, to be eligible for a further three years. In response to a recommendation in the McKinsey report, it was announced in the 1993–94 Budget that claims for grants will be processed faster and more regularly to ease emerging exporters' cash-flow problems.

The ITES assists firms that are assessed as having the potential to substantially increase exports. ITES provides assistance, mainly in the form of concessional loans, to firms that expect to earn at least $20 million in exports over a five year period. The scheme will be extended, at a cost of $11 million in 1993–94, to cover smaller exporters who cannot pass the $20 million criteria. Outlays under the ITES amounted to $20 million in 1992–93 and are expected to be $32 million in 1993–94.

The IAMP is a program managed jointly by AUSTRADE and the Department of Primary Industries and Energy. It provides finance to support rural or rural-related export and import replacement projects. Initiated in 1986 as a five-year program, it has since been extended for a further five years from July 1991, with funding set at a maximum of $5 million per annum. Outlays under the scheme amounted to $3.8 million in 1992–93 and are estimated to remain at around this level in 1993–94.

Export facilitation schemes

Export facilitation schemes provide export assistance arrangements that are dependent on tariffs being levied on imports. The passenger motor vehicle Export Facilitation Scheme (EFS) and textile, clothing and footwear Import Credit Scheme (ICS) facilitate exports by linking export sales to the duty-free entry of certain approved imports.[3] Various by-law and drawback schemes also allow certain exporters to import components at lower duty rates than prescribed.

A measure of the total assistance provided by these schemes has been hampered by a lack of detailed data on the operations of the EFS. Nevertheless, an indication of the revenue duty foregone from the scheme is reported below. In 1992–93, measured export assistance under these programs was just under $365 million. Of this total, $270 million supported PMV and TCF exports. The benefits derived by industry from the EFS and ICS export facilitation arrangements will decline in line with the tariff phasing.

Passenger motor vehicles EFS

Firms involved in the manufacture of passenger motor vehicles and components may apply for export facilitation credits equal to the value

3 For detailed discussion of both the EFS and ICS schemes and the estimates reported below see a companion staff working paper (Ironfield, Schuumans-Stekhoven and Glover 1993).

added in their exports.[4] The EFS, which commenced operation in March 1982, aims to increase Australia's exports of highly processed, high value-added automotive products. However, as the credits earned allow the holder to import goods duty free, the scheme is also linked to imports (Appendix N).

Since March 1991, the duty free saving derived from credits has been based on the tariff rate applying to completely built-up passenger motor vehicles. As tariffs on PMV are scheduled to phase down to 15 per cent by 1 January 2000, the maximum rate of assistance under EFS will decline in line with tariff phasing.

Information on the value of all EFS credits earned, or the revenue cost to the Commonwealth from the use of EFS credits, is not reported by the Australian Customs Service (ACS) or the Automotive Industry Authority. Consequently, the Commission has had to derive estimates of the minimum level of revenue duty forfeited under the scheme. Details of EFS credits used by PMV assemblers in 'plan' production are collected by the ACS. These data and estimates of the assemblers' duty savings from EFS are reported in Table O2. The estimates of duty savings/revenue duty forfeited should only be considered as indicators of the lower bound of assistance provided by the EFS. PMV assemblers can use credits to import non-plan production and, with the expansion of the EFS in 1991, there is greater potential for importers, other than PMV assemblers, to use credits.

Over the four years reviewed, PMV assemblers' duty savings under the EFS scheme peaked in 1990. Duty savings from EFS credits used by PMV assemblers declined to about $110 million in 1991. Although duty savings rose to $200 million in 1992, they were significantly below the 1990 peak. Despite the decline in the revenue duty forfeited, the duty savings associated with the EFS credits earned and used by PMV assemblers in 'plan' production in 1992 equates to a saving of over $6 800 per person employed by PMV assemblers in that year.

4 The EFS was extended in January 1991 to cover exports of certain automotive machine tools, automotive tooling and automotive design, development and production services. Since January 1991, EFS credits equal the value-added in eligible PMV exports. However, completely built-up and completely knocked-down passenger motor vehicles, engines and transmissions exported under the EFS are deemed to contain 100 per cent value added in their free-on-board Australian content.

In 1991–92, exports by ASIC industries covered by the EFS scheme amounted to $1 004 million. The EFS duty savings/revenue duty forfeited reported in Table O2 for 1992 is around to 20 per cent of this export value.

The pattern of intra-industry trade in PMVs under the EFS is presented in Appendix G.

As highlighted in the next section, the lack of detail on the value of EFS credits earned and used contrasts with the detail reported on the textiles, clothing and footwear Import Credit Scheme. The transparency of the PMV scheme would be enhanced if the AIA or the Australian Customs Service could report information similar to that provided by the Textile Clothing and Footwear Development Authority (TCFDA).

Table O2
Duty savings associated with PMV assemblers' use of certain export facilitation credits, 1989 to 1992 ($ million)

	1989	*1990*	*1991*	*1992*
Value of PMV Plan production	6 118.5	6 077.2	4 762.1	4 894.7
Total Plan imports[a]	1 443.6	1 634.3	1 155.2	1 252.2
Less EFS credits earned by PMV assemblers and used in 'local content achievement':	409.6	528.6	225.3	502.8
Less EFS credits earned by Specialist component producers and used in 'local content achievement':	108.5	74.7	57.8	55.9
Total EFS credits used in 'local content achievement'	518.1	603.3	283.1	558.7
Net imported content[b]	925.5	1031.0	872.1	693.5
EFS duty saving/revenue duty forfeited[c]	**220.2**	**241.3**	**106.2**	**195.5**

a Completely built-up passenger motor vehicles and components imported for use in Plan production.
b Derived by subtracting EFS credits used in achieving local content from Plan imports.
c Derived by multiplying total EFS credits used in 'local content achievement' by the general tariff rate applying to completely built-up passenger motor vehicles.
Source: Australian Customs Service and Commission estimates

Textiles, clothing and footwear ICS

The ICS commenced operation in July 1991. The aim of the ICS is similar to that of the automotive EFS – that is, to create an additional incentive for domestic manufacturers to export eligible products.

The TCFDA Annual Report (1992a) details the credits issued to industry and the resulting revenue costs to Government. The TCFDA reports that in 1991–92, the scheme's first year in operation, ICS credits worth $31.4 million of duty saving were issued on nearly $228 million of exports. The three commodities receiving the highest credit assistance in 1991–92 were: leather ($15.7 million); textiles ($8.1 million) and apparel ($5.4 million). In 1991–92, $26.8 million of these credits were used to import $52.3 million of approved goods duty free – representing an average implicit duty saving of 51.3 per cent. The TCFDA has advised that the duty savings under the scheme rose to $74.3 million in 1992–93.

The pattern of intra-industry trade in TCF, under the ICS, is presented in Appendix G.

Drawbacks and by-laws

Eligible exporters may apply for drawbacks or by-laws that allow access to imported inputs free of customs duty and sales tax. These concessions facilitate exports, by removing taxes on trade. That is, they can move eligible exporters closer to the position they would enjoy in the absence of sales tax and assistance to import-competing industries. However, the selective nature of some concessions (eg manufacturing versus agriculture and mining) may lead to wider disparities in assistance between sectors.

Under the drawback scheme, an exporter may obtain a refund of customs duty (including dumping duty), sales tax and excise duties. Drawback is available to imported goods that are either exported in the same form as imported, or exported after having been further processed or incorporated in other goods for export. Drawback is not payable on capital equipment, fuel, or chemicals such as catalysts, cleaning agents, fertilisers, veterinary drugs and the like which are used in the process of producing goods for export. For this reason, agricultural and mining activities have limited opportunities to use the drawback provisions.

In addition to drawback, there are various 'policy by-laws' which provide for concessional entry in a range of situations. The principal one of these by-laws, the Tariff/Tax Export Concession scheme (TEXCO), is specifically aimed at industrially-processed or manufactured exports. TEXCO allows for duty-free entry of goods intended for export after being processed, treated or incorporated into goods manufactured in Australia. There are certain requirements an applicant has to satisfy in order to be eligible for TEXCO. One of these is that the applicant has an existing or intended export market.

Benefits to exporters using duty drawback and TEXCO were of the order of $95 million dollars in 1992–93 and are expected to remain at about this level in 1993–94 (Table O1).

Multiple objective programs

There are a number of specific industry or sector assistance programs which, among other things, aim to facilitate exports. These programs may be broadly classified into two categories:

- bounties — more precisely, the export share of production bounties; and
- export assistance in other programs.

Table O3
Estimates of assistance to exports provided by bounties, 1991–92 to 1993–94 ($ million)

	Total bounty payment			*Assistance to exporters*		
Bounty	*1991–92*	*1992–93*	*1993–94*	*1991–92*	*1992–93*	*1993–94*
Computers	74.5	74.9	78.0	34.0	34.2	35.6
Machine tools & robots	16.0	8.6	7.5	2.5	1.4	1.2
Ships	24.4	24.2	26.7	20.2	21.2	23.0
Photographic film	12.0	6.0	–	12.0	6.0	–
Total	**126.9**	**113.7**	**112.2**	**68.7**	**62.8**	**59.8**

Source: Commonwealth Budget papers and Commission estimates

Bounties

Production bounties are payments to producers based on the domestic value of output or value added. The bounty allows local producers to sell at a lower price than their underlying cost structure would imply. When provided to import-competing industries, bounty assistance places domestic producers in a better position to meet competition from imports.

A number of bounties are paid on production destined for export. Unfortunately export data are not sufficiently disaggregated to determine export levels for many bountiable products. Hence, estimates of the export-assisting component of bounty assistance for computers and machine tools and robots rely on export intensity ratios derived from surveys conducted by the BIE. On the basis of available data, exports received a significant proportion of the bounty payments directed to computers, shipbuilding and photographic film.[5]

Export assistance from bounties was around $63 million in 1992–93 and is expected to decrease to just under $60 million in 1993–94 (Table O3).

In aggregate, bounty assistance appears to play a relatively small part in assisting exports. Total exports for the ASIC industries covering companies in receipt of these bounties was in excess of $2 000 million in 1991–92. Nevertheless, bounties can play an important role in assisting exports of certain bountiable commodities. For example, in 1991–92 and 1992–93, bounty payments for ships were equal to 12 per cent of production costs.[6]

The pattern of intra-industry trade in bountiable goods is presented in Appendix G.

5 The proportion of bounty paid on production subsequently exported is assumed to reflect the proportion of exports to total bountiable sales or production. For computers and metal working machine tools and robots, the proportion of exports to total bountiable production was based on surveys conducted by BIE (1990a; 1990b). These estimates are likely to be conservative as both bounties have been extended since the BIE reports. DITARD provided the information on shipbuilding exports and total bountiable production for 1991–92 and estimates for 1992–93 — estimates for 1993–94 are based on the average export performance over the previous two years. DITARD advised that all the bountiable production of photographic film is exported. The Photographic Film bounty expired on 31 December 1992.

6 The bounty is paid at a rate of 10 per cent of 1.2 times production costs.

Export assistance in other industry assistance programs

In addition to the industry arrangements associated with the PMV and TCF industries, a number of other industry arrangements either directly or indirectly assist exports. These arrangements cover Commonwealth Government programs such as Partnerships for Development and industry-specific assistance programs. These programs can involve industry performance targets or export subsidies. Exports facilitated by these programs are diverse and include dairy, telecommunications and information technology, and pharmaceuticals.

Due to data limitations arising from the non-transparent nature of many of these programs, this section only provides export assistance estimates for dairy products, pharmaceuticals and two programs associated with Australia's overseas development assistance program. Although assistance estimates are currently not available, a brief discussion of the potential for export assistance through Government Offsets and the Partnerships for Development Program is also included.

Dairy products

Commonwealth arrangements apply to the marketing of manufactured dairy products. These arrangements provide for a levy on the production of all milk — regardless of whether the milk is used in the manufacture of dairy products or directed to the fresh milk market. This levy funds market support payments made to exporters of dairy products. These payments, which are in essence export subsidies, are received by exports of six main product types (butter, cheese, skim milk powder, buttermilk powder, whole milk powder and casein). The market support payments have two major effects on the domestic industry. First, the level of domestic production channelled into exports increases. Second, the domestic price of manufactured dairy products is raised above the unassisted export return.[7] The higher returns to milk used in manufactured dairy products also set a floor price for milk sold on the fresh milk market. The higher prices received on the domestic market are the driving force behind the market

7 When measuring assistance to manufactured dairy products, the Industry Commission assumes that all the assistance derived from the higher returns on dairy products is passed back to dairy farmers in higher manufacturing milk prices. This assumption is based on the prevalence of cooperatives and the competitive nature of the dairy manufacturing sector.

support arrangements (IC 1991d). These higher domestic returns more than compensate producers for the levy paid to subsidise exports. Hence the export assistance is funded by domestic consumers of fresh and manufactured dairy products rather than the government or the domestic industry.

In 1992–93, market support payments totalled $140 million (Table O1) and averaged around 14 per cent of average export returns. Budget estimates indicate the market support payments will increase slightly in 1993–94. Commencing in 1993–94, the maximum rate which may apply to these payments is to be phased down from a ceiling of 22 per cent of average export returns to a maximum of 10 per cent of export returns in 2000.

Factor f scheme

The Factor f scheme, which was established in 1987 and extended in 1992, is intended to promote the development of the Australian pharmaceutical industry. The industry was considered to be inwardly oriented and smaller than might be expected. The Pharmaceutical Benefit Scheme, which allowed the Government to use market power to reduce drug prices in Australia and hence reduced returns to Australian pharmaceutical companies, was considered to be a contributor.

The Factor f scheme allows participating firms to receive higher prices for pharmaceuticals. For most recipient companies that entered the scheme prior to 1992, these higher prices were conditional on meeting quantitative targets for research and development and export activity.[8] Firms participating under the original scheme agreed to increase activity by $860 million of which $533 million or 62 per cent was to comprise increased exports (Auditor-General 1993b).

Participating companies received price increases of $26 million under the Factor f scheme in 1991–92. These payments increased to $52 million in 1992–93 and are expected to more than double to $130 million in 1993–94. The compensating nature of the scheme, plus its multiple objectives mean that the export assistance provided by the arrangements will be less than the total Factor f payments. However, given that over 60 per cent of targeted activity under the original scheme was associated with exports,

8 The 1992 extension of the scheme removed the explict link with export targets.

scheme outlays related to exports are likely to be in the order of $16 million in 1991–92, $32 million in 1992–93 and $80 million in 1993–94.

Appendix N provides additional information on the Factor f program.

Offsets and Partnerships for Development Programs

The offsets program commenced in the 1970's. Initially the program emphasised defence procurement. Later the emphasis was widened to cover defence and civil government procurement. Under the Civil Offsets program, international firms wishing to attract government business were required to agree to increase activity in Australia. Offsets obligations could be met by transferring technology, increasing exports or undertaking further research and development. In 1991, it was decided to maintain the Defence Offsets program and replace the Civil Offsets program with the progressive introduction or widening of more flexible and closely targeted industry-specific programs.

As part of its strategy to develop an information technology industry in Australia, the Government initiated a Partnership for Development program in 1987. The program, which aims to encourage international corporations to undertake activities in Australia, is linked to government procurement of information technology. The program was extended in 1991. Partnerships for Development agreements are now mandatory for all international information technology firms with orders of over $40 million per year. Firms with smaller orders are also required to meet agreed targets. A company signing a standard Partnership agreement with government, commits by the seventh year to achieve targets associated with:

- expenditure on research and development;
- exports of goods or services equivalent to 50 per cent of annual imports; and
- an average of 70 per cent local content in exports.

The level of export assistance associated with government procurement policies is not clear. It is likely that these arrangements provide incentives to a few selected industries at the expense of taxpayers — through higher contract prices paid by government and the administrative costs associated with the schemes.

Textiles, clothing and footwear Industries Development Strategy

One of the aims of the TCF Plan's Industries Development Strategy has been to increase the 'international competitiveness' of local industries by increasing TCF industries export orientation (TCFDA 1992a, p.3). The TCF Import Credit Scheme, reported above, explicitly attempts to achieve this goal. However, many of the other programs in the Industries Development Strategy are linked to increasing the exports of particular firms. Two of the schemes more obviously linked to exports are the Further Wool Processing Program and the Incentives for International Competitiveness Program.

Further Wool Processing Program

The Further Wool Processing Program (which replaced the Raw Materials Processing Program under which no grants were approved) is aimed at increasing further processing of export wool in Australia, the major part of which is presently exported in the raw state. The program was initiated in June 1992 and applications closed on 22 June 1993. In 1992–93, \$5.1 million was paid out in grants (a further \$6.4 million in grants has been approved for payment). Low interest loans to the value of \$15 million were also provided to assist the establishment of wool tops processing plants in NSW and Victoria. The Commission estimates benefits provided by the interest concessions were approximately \$800 000 in 1992–93. Most of the assistance provided under the scheme is assistance to exports — for example, one firm which received a grant of \$6.5 million estimates that 90 per cent of its additional production is destined for the export market.

Incentives for International Competitiveness Program

The Incentives for International Competitiveness Program is specifically designed to provide financial assistance to specific company projects. According to the TCFDA (1992a, p.6):

> Companies are expected to demonstrate future viability and increase in international competitiveness through measures such as export growth, import replacement, quality improvement and cost reduction.

Assistance is conditional on individual firms demonstrating the ability to operate, at the project's end, with assistance no higher than the manufacturing sector average. In 1991–92, nearly \$12 million in grants were paid. This increased to $42.2 million in 1992–93. Details on the export assistance component of these grants are not available.

Export assistance and aid

Humanitarian concerns are the driving force behind Australia's overseas development assistance program. There are some elements of this development assistance that could assist Australian companies or exporters, especially if the assistance is 'tied'. An OECD (1992a) report on member countries' total aid funding classified 45.3 per cent of Australia's bilateral overseas development assistance as tied aid. This compares with the average of 23.5 per cent for OECD countries.[9] Only Italy, with 47.2 per cent, and Austria, with 45.5 per cent, had a higher rate of tied aid in 1990.

Two schemes which directly assist exports are the Development Import Finance Facility (DIFF) and the Private Sector Linkages program.

Development import finance facility

The DIFF provides assistance to Australian exporters as well as development assistance to developing countries. It provides 'foreign aid' grants to assist developing countries enter into contracts with Australian firms undertaking public sector projects. A condition of the facility is that the firms must supply goods or services which are wholly or mainly of Australian origin. The DIFF grant enables EFIC to extend 'mixed credits' to Australian exporters, in conformity with the terms of the OECD Arrangement on Officially Supported Export Credits. The effect of the grant is to create a highly concessional finance package to accompany a capital project bid in a developing country. Firms seeking DIFF funds must provide evidence that competing foreign firms receive mixed credit support from their governments. The DIFF therefore "protects Australian exporters from being disadvantaged when competitors from other donor countries use their Government's tied aid credit scheme to offer 'soft' finance" (AIDAB 1993, p.1). By lowering the price of tenders, DIFF

9 The Development Assistance Committee of the OECD assesses the tying status of member countries. At one end of the tying status spectrum is 'tied aid' and at the other 'untied aid'. Tied aid is defined as aid which is mainly tied to procurement in the donor country. Untied aid covers aid which is fully and freely available for essentially world-wide procurement.

enables Australian firms to win overseas development contracts they would otherwise miss out on. A 1991 study estimated that some 15 000 Australian jobs have been created through DIFF assistance, the majority being in the manufacturing sector (Bilney 1993, p.58).

In 1991–92, $98 million was allocated to DIFF, outlays rose to $120 million in 1992–93 and are estimated to remain at this level in 1993–94. In 1992–93, DIFF funds assisted fifteen Australian manufacturing firms in export ventures. The importance of this DIFF assistance to successful ventures is illustrated by the following examples of contracts supported by DIFF in 1992–93:

- the supply and installation of electronic railway signalling equipment in Indonesia, valued at $115.3 million, was supported by a $40.4 million grant;
- a $25.9 million contract for the supply of components for a fertiliser plant in China was supported by a DIFF grant of $9.1 million; and
- the design, manufacture and delivery to Malaysia of power transformers valued at $11.5 million was supported by a DIFF grant of $4 million.

DIFF funding is expected to support 20 new projects in developing countries in 1993–94.

The private sector linkages program

The Private Sector Linkages Program was introduced in August 1992. The program links Australian private firms with the private sector in developing countries. Activities supported under the program include pre-investment and feasibility studies, small-scale demonstration projects and private sector training and exchanges. In 1992–93, $5 million was outlayed under the program. Outlays are expected to increase to $6 million in 1993–94.

APPENDIX P
COMMONWEALTH BUDGETARY OUTLAYS TO INDUSTRY

Commonwealth budget outlays to industry peaked, in 1991–92, at just over $2 billion and declined to $1.9 billion in 1992–93. Budget estimates for 1993–94 indicate outlays to industry will increase slightly to just under $2 billion.

Budgetary outlays to primary producers have declined from around $650 million in the early 1990s to an estimated $450 million in 1993–94. Outlays to the manufacturing sector have increased from $800 million to $1.1 billion or more than 55 per cent of total estimated industry outlays for 1993–94. This increase is in marked contrast to the manufacturing sector's assistance from border measures (tariffs and quotas) which have been subject to phased reductions. Although budgetary outlays to the mining and energy sector are relatively small, they show an increase over the four years reviewed, from $84 million in 1990–91 to an estimated $114 million in 1993–94. Apart from a jump in 1991–92, outlays to the services sector have been around $275 million per year.

Budgetary outlays can represent an important form of assistance to industry, although the link between outlays and assistance is often equivocal.[1] This appendix focuses on Commonwealth budgetary outlays that potentially increase returns to activities in four sectors — primary

1 This point is illustrated by Commonwealth budgetary outlays to the Joint Coal Board (JCB) in NSW. For many years the Commission reported these outlays as budgetary assistance. In a review of the JCB's operations in its mining and minerals processing inquiry, the Commission assessed that many of the Board's powers and functions were unjustified, costly and duplicative (IC 1991a, p.122). It was accordingly recommended that the JCB be disbanded. As part of the 1991–92 coal industry reform package, the Commonwealth and NSW governments decided to significantly reduce the JCB's functions. The remaining functions are now industry funded.

production; manufacturing; mining and energy; and services.[2] The outlays reported cover the period 1990–91 to 1992–93 and budget estimates for 1993–94. For a brief description of all the programs reported in this appendix, see a companion staff working paper (Ironfield, Schuumans-Stekhoven and Glover 1993). State budgetary outlays to agriculture are reported in Appendix Q.

The approach adopted in compiling the estimates has been to concentrate on Commonwealth government net budgetary outlays that the Commission believes are of most direct benefit to Australian industry. In many cases, the budgetary outlays equate with the assistance received by industry, for example, bounty payments. However, in other cases, the relationship between budgetary outlays and benefits to industry is not always straightforward. Some outlays, for example to the Rural Adjustment Scheme, have social welfare as well as assistance objectives. Other outlays may assist industry, although their primary intention may be to overcome market failures or provide goods or services deemed to be desirable for the community generally. Some government expenditure on research and development and outlays to the Australian Film Finance Corporation and Film Australia may fall into these categories. Conversely, many programs not reported here may have elements of industry assistance. The government's labour market programs are examples. Although the JOBSTART program has a significant social welfare component, the temporary wage subsidies it provides could also assist the firms that utilise the scheme.

Commonwealth budgetary outlays to industry are summarised at the end of this appendix in the following four tables:

- Commonwealth budgetary outlays to the primary production sector — agriculture, forestry and fishing — in 1990–91 to 1993–94 (Table P1, page 352);
- Commonwealth budgetary outlays to the manufacturing sector in 1990–91 to 1993–94 (Table P2, page 355);

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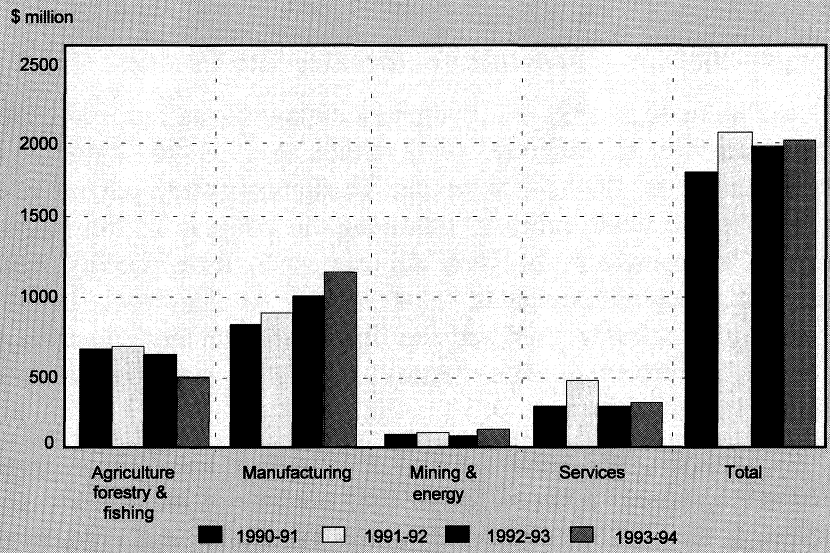
2 If a program covers more than one sector it has been allocated to the sector which the Commission believes receives the most benefit. The outlays reflect the budgetary incidence rather than the assistance incidence. For example, while a $1 million wheat underwriting payment is reported in the estimated outlays for 1993–94, the assistance relates to the 1986–87 wheat pool.

Figure P1
Commonwealth budgetary outlays to industry, 1990–91 to 1993–94[a]



a 1993–94 values are based on Budget estimates.
Source: Commission estimates

- Commonwealth budgetary outlays to the mining and energy sector in 1990–91 to 1993–94 (Table P3, page 357); and
- Commonwealth budgetary outlays to the services sector in 1990–91 to 1993–94 (Table P4, page 358).

Trends in budgetary outlays

Budgetary outlays to the four sectors reviewed peaked at $2 041 million in 1991–92 and declined to $1 942 million in 1992–93 (Figure P1). Budget estimates for 1993–94 indicate total outlays to industry would increase to $1 980 million.

In 1991–92, the budgetary outlays for the four sectors accounted for approximately 2 per cent of total budgetary expenditures. In that year, budgetary outlays for Agriculture, forestry and fishing were 5.9 per cent of the sector's contribution to GDP, while budgetary outlays to

Manufacturing were 1.7 per cent of the sector's GDP contribution. Budgetary outlays for the Mining and energy and Services sectors in 1991–92 were significantly less than half of one per cent of each sector's output.

Primary production — Agriculture, forestry and fishing

After a small increase in 1991–92, budgetary outlays to the sector declined from \$652 million to an estimated \$452 million in 1993–94 (Table P1).[3] The larger outlays in 1990–91 were due to supplementary payments of \$256 million to the wool industry, following the collapse of the reserve price scheme. An increase in Rural Adjustment Scheme funding, trade sanctions compensation payments, plus outlays to the wool industry through an interest subsidy grant and the final supplementary payments to wool growers, were the major contributors to the larger outlays reported in 1991–92.

In 1992–93, outlays to the sector totalled \$599 million and four programs — the Rural Adjustment Scheme, the CSIRO Institute of Plant Production and Processing, the CSIRO Institute of Animal Production and Processing, and the National Land Care Program, accounted for over 60 per cent of the budgetary assistance reported in Table P1.

Manufacturing

In 1990–91, budgetary outlays to the Manufacturing sector were \$791 million. Outlays increased by 24 per cent to \$978 million in 1992–93 and are expected to increase further to \$1 128 million in 1993–94.[4] The increase in outlays for 1993–94 was substantially due to an expected

3 The estimates for agriculture exclude insurance pay-outs under EFIC's National Interest Business. Unlike the 'trade sanctions compensation — Iraq' payments which have been reported as budgetary outlays to agriculture, outlays under the NIB involved the payment of an insurance premium. As discussed in Appendix O, the NIB scheme is likely to provide assistance. However, insurance pay-outs give only a weak indication of any assistance provided. If total outlays to Agriculture, forestry and fishing included these NIB payments, outlays for 1990–91 would increase from \$639 million to \$865 million and outlays for 1991–92 would increase from \$652 million to \$896 million.

4 These estimates include budgetary outlays on export assistance which provides some assistance to other sectors. However, as noted in Appendix O, a significant proportion of export assistance outlays goes to the manufacturing sector.

increase in funding for the pharmaceutical industry Factor f scheme, the Cooperative Research Centres program and the Export Market Development Grants scheme.

In 1992–93, four programs — Bounty payments, the Export Market Development Grants scheme, the Development Import Finance Facility and the CSIRO Institute of Industrial Technologies — accounted for over 50 per cent of the budgetary outlays provided to manufacturing industries.

Mining and energy

The Mining and energy sector receives comparatively little in budgetary outlays from the Commonwealth. Outlays to this group of industries increased by nearly 22 per cent from $84 million to $102 million between 1990–91 and 1992–93. Budget outlays in 1993–94 are estimated to be $114 million. In all years, reported expenditure on research by the CSIRO Institute of Minerals, Energy and Construction accounted for approximately 80 per cent of outlays for the sector.

Services

The transport, film and tourism industries are among the major beneficiaries of Commonwealth budgetary outlays to the Services sector.[5] With the exception of outlays for 1991–92, outlays to the sector have been relatively constant over the four years reviewed. In 1991–92, outlays increased by 62 per cent to $430 million. Industry reform packages for the retail pharmacies, and transport and waterfront industries were the major contributors to the increased outlays. Outlays declined to $264 million in 1992–93 and are expected to increase to $286 million in 1993–94. The 1993–94 figure — although significantly below 1991–92 outlays — represents an 8 per cent increase on the 1990–91 level.

5 For the purposes of this exercise the service sector has been defined narrowly and excludes activities such as health and education services which can be argued to have a significant social welfare component.

Table P1
Commonwealth budgetary outlays to agriculture, forestry and fishing[a], 1990–91 to 1993–94 ($ million)

	1990–91	*1991–92*	*1992–93*	*1993–94*
AGRICULTURE				
Crops				
Australian Horticultural Corporation	1.0	1.5	2.5	2.2
Australian Plague Locust Commission	0.8	1.1	2.7	–
CSIRO Institute of Plant Production and Processing	84.1	90.9	93.8	87.7
Sugar industry adjustment assistance	0.6	–	–	–
Sugar industry Program	–	–	–	8.0
Trade sanctions compensation — Iraq	–	32.9	–	–
Wheat underwriting [b]	–	–	–	1.1
Sub-total	**86.5**	**126.4**	**99.0**	**99.0**
General agricultural activities				
Business advisers for rural areas program	–	0.9	1.8	1.8
Clean food export strategy	–	–	–	3.0
Farm Household Support Scheme	–	–	0.9	6.7
Farm Management Advisory Skills Program	0.2	–	–	–
Innovative Agricultural Marketing Program[c]	4.1	4.5	3.8	3.7
Land & Water Resources R&D Corp.	8.7	10.8	10.4	11.1
National Landcare Program	–	–	60.6	75.7
National Soil Conservation Program	22.0	24.5	–	–
Primary Industries Marketing Skills Program	1.8	1.0	1.3	1.6
Quarantine & export inspection services[d]	18.2	15.6	12.3	–
Rural Adjustment Scheme	52.1	149.4	159.6	43.4
Rural Counselling Program	1.2	5.2	7.0	9.0
Rural Development Incentive Scheme	–	–	–	1.6
Rural Enterprise Network Program	–	–	–	0.6
Rural Industries Business Extension Service	–	–	1.0	2.3
Rural Industries R&D Corporation	6.1	8.4	10.5	10.5
Water resources — assessment and research grants	2.7	0.3	0.3	0.2
World Best Practice Incentive Scheme	–	–	–	1.7
Sub-total	**117.1**	**220.6**	**269.5**	**172.9**

Table P1 (continued)

	1990–91	*1991–92*	*1992–93*	*1993–94*
Livestock, poultry, etc.				
Australian Animal Health Laboratory	5.4	5.5	6.0	5.9
Bovine brucellosis & tuberculosis eradication campaign	11.0	7.9	5.3	4.6
CSIRO Institute of Animal Production & Processing	69.0	75.8	65.5	68.8
Dairy products underwriting	–	22.0	–	–
Exotic disease preparedness programs	1.6	1.7	1.5	1.7
Wool — interest subsidy	–	22.5	22.5	–
— international promotion	22.9	32.1	25.0	20.0
— supplementary support payments	255.8	44.2	–	–
Sub-total	**365.7**	**211.7**	**125.8**	**101.0**
Research (livestock & crops)				
Dairy	3.2	5.0[e]	5.1[e]	4.7
Meat & livestock	13.6	20.7[e]	22.8[e]	22.0
Pigs	1.6	2.7[e]	2.7[e]	3.5
Wheat	11.5	11.7[e]	10.1[e]	14.2
Wool	11.7	13.6[e]	15.5[e]	12.7
Other industries[f]	13.0	18.8[e]	22.5[e]	–
Sub-total	**54.6**	**72.5**	**78.7**	**57.1**
Total outlays to agriculture	**623.9**	**631.2**	**573.0**	**430.0**
FORESTRY				
National Afforestation Program	0.7	0.4	0.1	–
Northeast Queensland Rainforests Package	–	–	0.5	1.1
NSW Southeast Forests Package	0.4	0.1	–	–
Tasmanian Forest Industry Package	–	4.2	12.5	7.5
Victorian Forest Industry Package	3.9	4.7	1.3	–
Total outlays to forestry	**5.0**	**9.4**	**14.4**	**8.6**
FISHERIES				
Fisheries industry adjustment	–	1.3	–	–
Research & development	9.3	7.8	8.5	10.7
Resources research	–	2.7	2.9	2.2
Surveys & development	0.5	–	–	–
Total outlays to fisheries	**9.8**	**11.8**	**11.4**	**12.9**

(continued next page)

Table P1 (continued)

	1990–91	1991–92	1992–93	1993–94
Total outlays to agriculture, forestry and fisheries	**638.7**	**652.4**	**598.8**	**451.5**
National Interest Business[g]	226.5	243.7	53.9	27.2
Total outlays to agriculture, forestry, and fisheries, including NIB	**865.2**	**896.1**	**652.7**	**478.7**

– Nil.

a Commonwealth Government expenditure net of industry contributions, 1993–94 data are Budget estimates.

b In respect of the 1986–87 wheat pool.

c Some Innovative Agricultural Marketing Program projects may be classified to the manufacturing sector, for example in 1990–91 approximately 50 per cent of approved projects assisted manufacturing industries.

d The outlays for quarantine & export inspection services represent the deficit associated with expenditures which are considered to be recoverable.

e Actual outlays were not available for 1991–92 and 1992–93. Hence, budget estimates are reported.

f The other industries are: barley, chicken meat, cotton, dried fruit, grain legumes, grains (non-wheat), grapes and wines, honey, horticulture, oilseeds, sugar, and tobacco.

g The estimates reported in this appendix have excluded these NIB payments. These payments are insurance payouts, mainly connected with Australia's imposition of trade sanctions against Iraq. Unlike the 'Trade sanctions compensation — Iraq', payments reported in this table, these outlays involved the payment of insurance premiums. As discussed in Appendix O the NIB scheme is likely to provide assistance, although insurance outlays give only a weak indication of any assistance provided.

Source: Commonwealth Budget Papers (various years) and Commission estimates

Table P2
Commonwealth budgetary outlays to the manufacturing sector[a], 1990–91 to 1993–94 ($ million)

	1990–91	*1991–92*	*1992–93*	*1993–94*
Bounties				
Bed sheeting	2.9	2.6	2.4	1.6
Books	24.2	21.5	21.4	22.3
Citric acid	–	0.7	0.7	0.7
Computers	51.3	74.5	74.9	78.0
Metal working machine tools & robots	15.2	16.0	8.6	7.5
Printed fabrics	1.7	2.8	1.5	1.7
Sensitised photographic film	12.0	12.0	6.0	–
Ships	37.4	24.4	24.2	26.7
Textile yarns	77.2	51.1	32.0	16.5
Textile Bounty Capitalisation Grants Scheme	28.1	39.1	14.5	–
Sub-total	**250.0**	**244.7**	**186.2**	**155.0**
Other industry-specific programs				
Ausmusic	–	–	0.6	1.2
Agri-food industry initiative	–	–	0.2	2.2
Australian Magnesium Metal Technology Initiative	–	–	4.9	12.3
CSIRO pulp mill research	1.4	1.9	1.9	1.9
Equity in the Australian Technology Group	–	–	30.0	–
Heavy engineering adjustment and development program	3.7	1.2	–	–
Information industries — Vendor Qualification Scheme	1.2	1.2	1.2	1.5[b]
Information Technology Development Program	–	–	0.3	–
Malaria Joint Venture	2.3	9.4	–	–
Metals-based engineering program	5.1	5.6	1.4	0.2
Motor Vehicles and Components Development Grants Scheme	4.7	2.3	..	..
Multi-Function Polis	1.1	2.7	1.5	1.6
National Space Program	5.2	5.7	5.4	7.7
Pharmaceutical industry assistance (Factor f program)	16.7	26.3	51.9	129.5
Steel study project	–	–	0.8	0.3

(continued next page)

Table P2 (continued)

	1990–91	1991–92	1992–93	1993–94
Tasmanian Wheat Freight Subsidy	3.3	3.2	2.9	2.7
TCF Industries Development Strategy	4.9	16.0	66.1	50.3
Sub-total	**49.6**	**75.5**	**169.1**	**211.4**
General industry development programs				
Australian Made Campaign	–	2.0	–	–
Best Practice Demonstration Program		10.0	15.6	6.8
Cooperative research centres	–	18.2	45.3	94.2
CSIRO Institute of Industrial Technologies	64.7	64.2	67.6	68.4
Investment promotion strategy	5.5	8.0	–	–
National Industry Extension Service	19.7	21.1	16.4	21.4
Science innovation programs	0.4	–	–	–
Industry innovation programs			43.5	42.0
– Advanced Manufacturing Technology Development Program	–	0.1	c	c
– Grants for Industry Research and Development	29.6	32.2	c	c
– National Procurement Development Program	4.2	4.4	c	c
– Technology Development Programs (including National Teaching Company Scheme)	3.0	3.2	c	c
Small and Medium Enterprise Development Program	–	2.4	1.4	1.0
Sub-total	**127.1**	**165.8**	**189.8**	**233.8**
Total – excluding export assistance	**426.7**	**486.0**	**545.1**	**600.2**
Export assistance				
Austrade				
– export promotion operating expenses	106.1	112.1	125.5	134.9
– Asia Pacific Fellowship	–	3.9	3.2	3.3
– Export Market Development Grants Scheme[d]	162.0	134.0	148.0	209.7
Australia in Asia programs	–	–	1.5	14.8
Export Access	–	1.0	4.2	6.2
Interest subsidy for financing eligible export transactions — EFIC	7.9	10.9	9.4	7.6
Development Import Finance Facility	83.8	98.0	120.0	120.0
International Trade Enhancement Scheme	4.5	20.7	20.8	31.7
Total export assistance	**364.3**	**380.6**	**432.6**	**528.2**
Total manufacturing	**791.0**	**866.6**	**977.7**	**1128.4**

Table P2 (continued)

– Nil

a Commonwealth Government expenditure net of industry contributions, 1993–94 data are Budget estimates.

b 1993–94 estimate includes outlays for Information industries – vendor qualification scheme, and the Information technology development program.

c For 1992–93 and 1993–94 disaggregated information on the schemes included in the 'Industry innovation programs' was not available.

d Some Export Market Development Grant expenditure relates to the agricultural sector. For example, the Commission estimates that in 1990–91 $8.5 million of approved grants assisted agriculture.

Source: Commonwealth Budget Papers (various years) and Commission estimates

Table P3
Commonwealth budgetary outlays to the mining and energy sector[a], 1990–91 to 1993–94 ($ million)

	1990–91	*1991–92*	*1992–93*	*1993–94*
CSIRO Institute of Minerals, Energy and Construction	64.4	73.2	80.5	93.3
Energy management programs	4.2	4.5	7.8	7.3
Energy Research and Development Corporation	12.3	11.8	11.6	11.0
Office of the Supervising Scientist of the Alligator Rivers Region Research Institute[b]	1.6	1.9	1.9	1.7
Rehabilitation of former uranium mine sites	1.5	0.7	0.4	0.3
Total outlays to mining and energy	**84.0**	**92.1**	**102.2**	**113.6**

a Commonwealth Government expenditure net of industry contributions, 1993–94 data are Budget estimates.

b A levy on uranium exports is intended to cover three quarters of the cost of the supervising scientist. One quarter of the cost has been recorded here.

Source: Commonwealth Budget Papers (various years) and Commission estimates

Table P4
Commonwealth budgetary outlays to the services sector[a], 1990–91 to 1993–94 ($ million)

	1990–91	*1991–92*	*1992–93*	*1993–94*
Communications				
CSIRO Institute of Information Science and Engineering	34.4	42.3	37.9	38.9
Construction				
Building research	0.3	0.3	0.3	0.3
Film industry				
Australian Film Commission	16.1	16.6	17.1	17.9
Australian Film Finance Corporation & Film Australia Pty Ltd[b]	72.8	75.6	67.8	63.5
Retailing				
Pharmacy Restructuring Authority Grants	13.5	36.4	8.3	10.0
Tourism				
Australian Tourist Commission	62.6	69.5	74.5	77.1
Transport				
Remote air services subsidy	1.1	1.1	1.1	1.2
Shipping industry reform	6.6	12.5	0.7	12.8
Shipping – grants for purchase of new or second hand trading ships (contingent on lower crewing levels)	7.6	15.9	0.1	30.5
Tasmanian Freight Equalisation Scheme	32.8	32.8	33.0	34.0
Towage industry reform	0.3	5.3	–	–
Waterfront industry reform	17.2	121.5	22.9	–
Total	**265.3**	**429.8**	**263.7**	**286.2**

– Nil.

a Commonwealth Government expenditure net of industry contributions, 1993–94 data are Budget estimates.

b The 1991–92 figure does not include Film Australia Pty Limited.

Source: Commonwealth Budget Papers (various years)

APPENDIX Q
STATE GOVERNMENT BUDGETARY OUTLAYS TO AGRICULTURE

State budgetary outlays to the agricultural sector amounted to $600 million in 1990–91 (only 5 per cent less than Commonwealth budgetary outlays to the agricultural sector, as reported in Appendix P). This estimate does not include any subsidies associated with infrastructure pricing. While outlays increased in nominal terms over the period 1981–82 to 1990–91, outlays as a proportion of the farm-gate (local) value of output declined from 3.2 per cent in 1981–82 to approximately 2.5 per cent in 1988–89 and 1989–90. The relative importance of outlays, however, returned to 3.2 per cent of the farm-gate value of output in 1990–91, on account of a decline in the value of output and the counter-cyclical nature of some forms of expenditure.

The relative importance of the different forms of outlays to agriculture changed over the period 1981–82 to 1990–91, with a marked increase in expenditure for soil conservation and a decline in the importance of extension services. Research expenditures remained the main form of budgetary outlay.

Under Australia's federal system of government, efficient use of the nation's resources is influenced by the actions of both Commonwealth and State governments. The Commission and its predecessors have reported on Commonwealth support for agriculture since the early 1970s. State measures have received less attention.

This appendix provides an indication of the extent of State government budgetary outlays provided to the agricultural sector for the period 1988–89 to 1990–91. The work updates previous estimates by the Industries Assistance Commission (IAC 1988) for the years 1981–82 and 1984–85. It will become an input into the OECD's annual estimates of both national and sub-national assistance to agriculture for member countries.

As discussed in Appendix P, relating budgetary outlays to assistance is not always clear cut. Some of the reported expenditures on research, for example, may provide public benefits that justify outlays. Other expenditures, for example on research and soil conservation, are of a capital nature. These outlays may be related to improved productivity in past or future years. Nevertheless, information constraints have required that they be reported in the year of outlay rather than the year(s) when benefits accrue.

The measurement of State budgetary outlays to the agricultural sector poses special problems. Some are of the conceptual character indicated above, and some relate to the lack of uniformity with which State budgets are compiled. Hence, while the measurement of State budgetary outlays adds to transparency, their identification and measurement is often more arbitrary than for Commonwealth budgetary outlays. It should be mentioned that State government departments provided the Commission with extensive assistance towards reducing these problems.

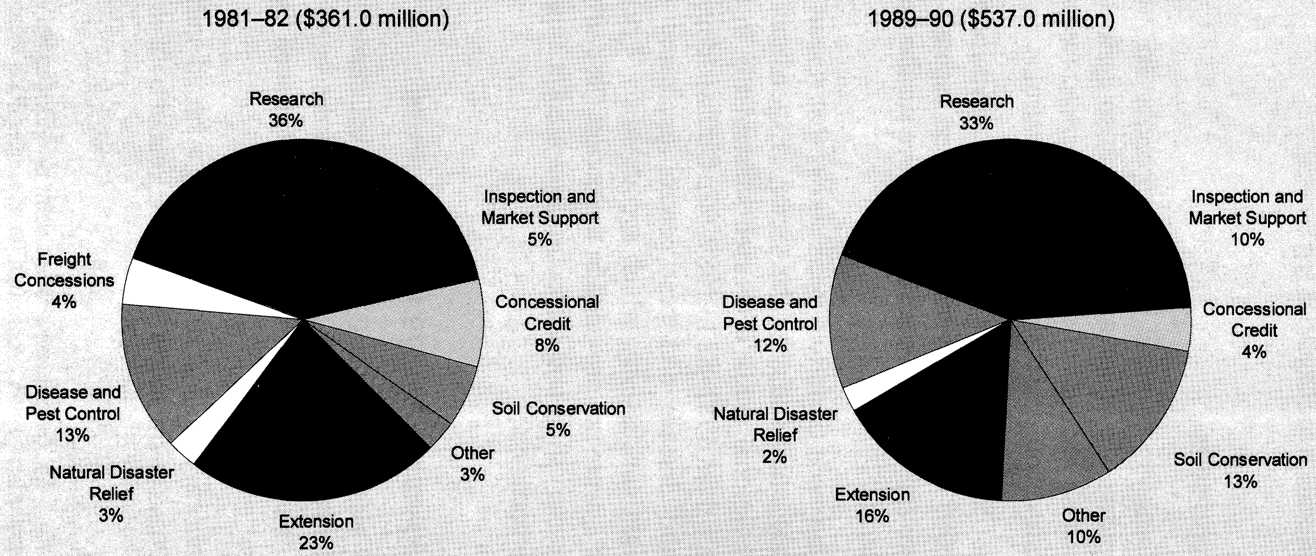
State governments also provide assistance to agriculture through a variety of instruments which are not covered in this appendix (eg regulations controlling agricultural marketing arrangements).[1] Assistance (or penalties) may also arise through the provision of infrastructure services at prices which do not reflect least-cost provision.[2] Such assistance may be significant. For example, information supplied to the Commission during its Water resources and waste water disposal inquiry indicated that the under-recovery of irrigation costs in 1989–90 could have been as high as $424 million (IC 1992c), or nearly 80 per cent of State outlays to agriculture in 1989–90 (Table Q1).

Although State governments can provide assistance through a range of instruments, it is of interest to note that the forms of State government

1 The assistance effects of some of these State government regulations — for example marketing arrangements for fresh milk, sugar and eggs — are included in the Commission's estimates of assistance reported in Appendix S.

2 These are not covered due to the difficulty in quantifying the level of assistance involved in activities where there is no clear alternative benchmark price.

Figure Q1
Total State budgetary outlays to agriculture by measure, 1981–82 and 1989–90



Source: Commission estimates

assistance are limited by the Constitution. State governments cannot provide border assistance to industries (eg tariffs).

Budgetary measures

The budgetary outlays reported in this appendix are those that the Commission considers are of most direct benefit to agriculture. Outlays reported include those for market support, inspection, research, extension services, soil conservation, and disease and pest control.

Figure Q1 shows State budgetary outlays to agriculture by measure in 1981–82 and 1989–90. These years were chosen because they are at the beginning and near-end of the time series, and have similar farm-gate values of output in real terms.

The comparison between these two years shows that research remains the most important budgetary outlay to the sector. Expenditure on extension services and concessional credit decreased substantially in terms of their relative importance from 1981–82 to 1989–90. Outlays to research, natural disaster relief, and disease and pest control decreased marginally in importance. Freight concessions, which accounted for 4 per cent of total outlays in 1981–82, were not provided in the period 1988–89 to 1990–91.[3] Outlays to soil conservation and inspection and market support increased substantially in importance.

Trends in budgetary outlays to agriculture

Table Q1 brings together previously published estimates (1981–82 and 1984–85) of budgetary outlays to agriculture and the latest estimates for 1988–89, 1989–90 and 1990–91. Estimates are presented by State and by commodity group.

Comparisons between years, whilst providing a broad indication of the extent of State outlays to the sector, should be treated with caution. The

3 In 1981–82 and 1984–85, freight concessions were provided in NSW on the cartage of wool, wheat, and other grains. Although these concessions were not provided in the period 1988–89 to 1990–91, they were subsequently revived in 1991–92 via a system of community service obligation payments.

Table Q1
Budgetary outlays to agriculture and as a proportion of farm-gate value of output, by State and commodity group, various years 1981–82 to 1990–91

	1981–82[a]		*1984–85*[a]		*1988–89*		*1989–90*		*1990–91*	
	($ m)	(%)	($ m)	(%)	($ m)	(%)	($ m)	(%)	($ m)	(%)
State										
New South Wales	124.8	4.0	160.9	4.1	151.2	2.5	177.2	2.8	211.6	3.7
Victoria	81.8	3.3	77.3	2.6	69.2	1.5	75.4	1.6	81.0	1.9
Queensland	67.3	2.9	86.3	3.0	109.0	2.7	96.5	2.2	114.9	2.8
Western Australia	50.8	3.0	65.3	2.8	97.5	2.9	114.5	3.7	109.7	4.7
South Australia	23.2	1.8	31.6	2.1	28.0	1.4	32.1	1.4	35.8	2.1
Tasmania	13.1	4.8	13.8	3.9	24.2	4.4	24.7	4.4	21.5	4.2
Northern Territory	ne	ne	17.3	22.1	15.8	16.2	16.6	13.8	17.6	15.4
Australia	**361.0**	**3.2**	**452.5**	**3.2**	**494.9**	**2.4**	**537.0**	**2.5**	**592.1**	**3.2**
Commodity group										
Crops	123.3	2.9	163.1	3.0	147.1	2.4	148.1	2.5	169.8	3.3
Fruit	11.5	2.2	24.2	3.1	34.6	2.8	37.6	3.2	38.5	3.7
Livestock	198.8	3.4	247.8	3.5	283.1	2.3	313.1	2.4	342.8	3.0
Vegetables	21.7	4.7	14.8	2.9	30.1	3.0	38.2	3.4	41.0	3.9
Total	**355.3**	**3.2**	**449.3**	**3.2**	**494.9**	**2.4**	**537.0**	**2.5**	**592.1**	**3.2**

a The totals presented for the periods 1981–82 and 1984–85 do not match, due to the way in which the data were presented in IAC (1988).
ne not estimated
Source: Commission estimates and IAC (1988)

one-off or cyclical nature of some expenditures can lead to substantial variations between years, particularly in periods of economic downturn. Comparisons between States should also be treated with caution, owing to the different reporting procedures mentioned earlier.

Budgetary outlays by States

State budgetary outlays to agriculture were some $600 million in 1990–91. There was a $100 million increase in annual expenditure over the two years since 1988–89. The increase from 1988–89 to 1989–90 was common to all States, apart from Queensland (which experienced a sharp decline in natural disaster outlays). The increase from 1989–90 to 1990–91, however, was due almost entirely to increased outlays in NSW and Queensland. NSW outlays to agriculture increased by almost 40 per cent from 1988–89 to 1990–91. This was largely due to significant increases in outlays directed towards soil conservation, natural disaster relief and research.

As might be expected, total outlays were greater, in nominal terms, in the later years. However, the overall significance of State government budgetary outlays to agriculture has generally been in decline. As a proportion of the farm-gate value of output, outlays declined from 3.2 per cent at the beginning of the 1980s to about 2.5 per cent at the end of the 1980s. The proportion returned to 3.2 per cent in the downturn of 1990–91, reflecting the lower farm-gate value of production and the counter-cyclical nature of some forms of outlays.

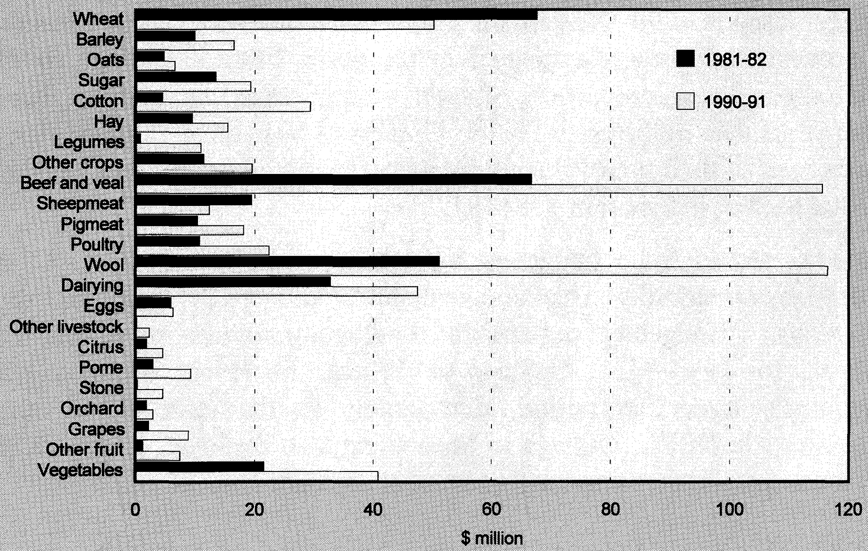
The Northern Territory stands out as having the highest level of budgetary outlays relative to output values — equivalent to over 15 per cent of the farm gate value of output in 1990–91. The States with the lowest levels of budgetary outlays relative to output values were South Australia and Victoria.

Budgetary outlays by commodity group

Livestock, with over 55 per cent of budgetary outlays, was the major commodity group beneficiary for all years reviewed (Table Q1).[4] Crops

4 The Commission's estimation of budgetary outlays to commodities and commodity groups involved some discretionary allocation. If budgetary outlays were

Figure Q2
State budgetary outlays to agricultural commodities, 1981–82 and 1990–91



Source: Commission estimates

received just under 30 per cent of outlays between 1988–89 and 1990–91. Fruit and vegetables each received around 7 per cent of outlays between 1988–89 and 1990–91.

In nominal terms and as a proportion of total output, budgetary outlays to the livestock, crops, fruit and vegetable commodities increased from 1988–89 to 1990–91.

In nominal terms, budgetary outlays to crop commodities were higher than in 1981–82, but approximately the same as in 1984–85. Budgetary outlays

commodity-specific they were allocated to the appropriate commodity. For other outlays the task of allocating to commodity groups has been less clear cut. In some instances, no records are available to indicate which commodities directly benefit from budgetary outlays. In these cases, the relevant State governments have, where possible, provided an indicative allocation. In other cases, the outlays were allocated on the basis of each commodity's share of the respective State's farm-gate value of output.

to fruit, vegetables and livestock increased from the early 1980s to recent years.

Budgetary outlays to crops and livestock commodities, as a proportion of their total farm-gate values, decreased from the early 1980s to 1989–90, then increased in 1990–91, with the proportional outlays to crops exceeding the proportional outlays estimated in the early 1980s. Outlays to fruit commodities, as a proportion of total output, were generally higher in recent years than in the early 1980s. Outlays to Vegetable commodities, as a proportion of their total value of output, were higher in the late 1980s than in 1984–85, but less than in 1981–82.

Figure Q2 shows State budgetary outlays to agriculture in 1981–82 and 1990–91 by commodity. Beef and veal and Wool were the major recipients of outlays. Budgetary outlays to most commodities increased from 1981–82 to 1990–91. Outlays to Wheat, however, declined quite dramatically over that period, due largely to the removal of freight concessions in NSW. Outlays to Sheepmeat also declined, largely in line with a decrease in the farm-gate value of sheepmeat production.

APPENDIX R
ANTI-DUMPING ACTIVITY

Anti-dumping activity in Australia has continued at high levels. In part, this is in keeping with the tendency for anti-dumping action to become more prevalent in times of economic downturn. Recent changes to the Australian anti-dumping system, however, have given domestic producers increased protection against dumped and subsidised imported goods. The provisions make the imposition and maintenance of anti-dumping or countervailing actions easier and increase, at least in the short term, the duties that can be imposed.

Australia has traditionally been a heavy user of anti-dumping actions. In 1991–92, Australia reported more initiations of anti-dumping investigations than any other signatory to the GATT anti-dumping agreement.

This appendix reports on anti-dumping and countervailing activity in 1992–93. It also discusses recent changes to anti-dumping procedures and reports on some international developments related to dumping.

Australia's anti-dumping and countervailing duty legislation is based on the GATT Anti-Dumping Code. The GATT Code, which sets out the criteria that must be met before action can be taken, is intended to constrain the scope for anti-dumping actions to be abused for protectionist ends. Indeed, there is nothing in the GATT rules which requires action to be taken, even where dumping is found.

Goods may be assessed as 'dumped' in Australia if they are sold for less than their 'normal value' — generally taken to be the price of the goods in the exporter's own home market. Before an anti-dumping action is taken it must be established that the dumping is causing or threatening 'material injury' to an industry. This action results in the determination of the 'normal value' — or a lower 'non-injurious free on board' (NIFOB) value

— as a floor price for imports, and the imposition of a duty equivalent to the margin between the export price and the floor price. However, if the exporter gives a formal undertaking not to price goods below the pre-determined floor price, a duty is not imposed.

Similar rules apply to countervailing action. A countervailing duty may be imposed where a foreign government is assessed to provide certain financial assistance to exports.

Anti-dumping procedures are seen by users as a mechanism to safeguard against 'unfair' pricing practices by overseas competitors. However, in a broader sense, low pricing by overseas competitors can be seen as a normal business strategy without predatory intent, occurring in periods of depressed demand or excess capacity.[1] This is typically true of chemicals, for example, where it is good business practice to sell some products at low prices to maintain production runs.

Anti-dumping actions are often taken simultaneously against several foreign exporters. For example, in August 1992, anti-dumping action was recommended against imports of high density polyethylene from Italy, Japan, the Republic of Korea, Saudi Arabia, Singapore, Sweden, Thailand, and the USA (ADA 1992b). Similarly, in September 1992, action was recommended against imports of polyvinyl chloride (PVC) resin from Canada, the People's Republic of China, France, Japan, Norway, Romania, the Kingdom of Saudi Arabia, and Thailand (ADA 1992c). Where exporters from many countries are selling below domestic prices, the 'dumped' price can amount to the prevailing competitive international price.

Anti-dumping action reduces international pressures on domestic firms producing the good in question. But, in raising import prices, such action can itself harm other industries, as noted by the Anti-Dumping Authority (ADA 1992a, p.22), in a recent report:

> ... anti-dumping action *always* imposes costs on Australians, and *almost* always imposes costs on Australian *industries*.

Costs imposed by an anti-dumping action are particularly onerous if the goods are inputs into other production processes. This point is illustrated

1 Low pricing by overseas competitors can also occur where an exporter benefits from import protection and monopoly in the domestic market.

by the recent ADA inquiry into imports of sodium cyanide from the USA and India. A submission by the gold producing industry, a major exporter, claimed that the imposition of anti-dumping duties on imports of sodium cyanide:

> ... would significantly increase the costs of extracting gold and that gold miners might reduce employment and exploration as a result (ADA 1993, p.39).

Although the ADA recognised the potential for injury to the gold mining sector, it is not required to take into account the effects of anti-dumping action on the wider community. It found, according to its procedures, that dumping of sodium cyanide was causing or threatening injury to the local chemical industry and hence anti-dumping action was warranted.

The costs of anti-dumping actions to consumers and intermediate users can be considerable. Even the mere threat of an anti-dumping action may discourage overseas companies from exporting goods to Australia at the most competitive price, and the benefits lost in this way cannot be measured.

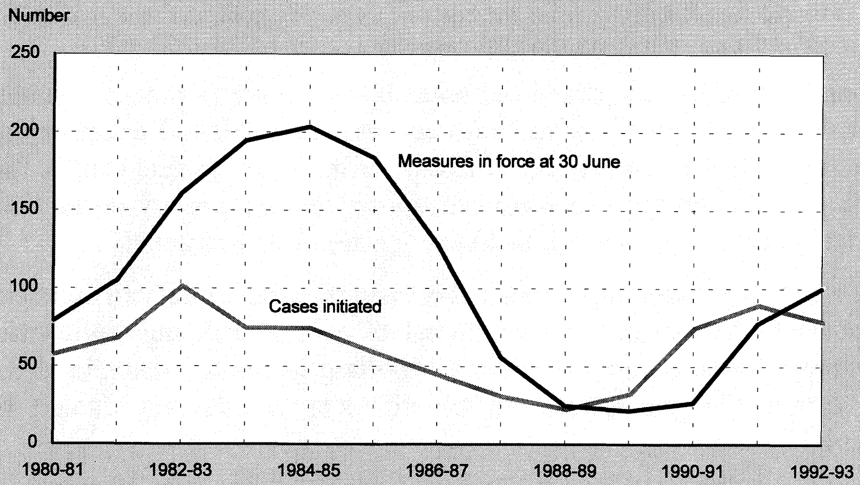
Dumping margins can be quite high, often significantly higher than prevailing tariff rates. Dumping margins and dumping duties derived from them are generally based on free-on-board (fob) values and are imposed in addition to tariff duties. A review of a sample of ADA cases showed dumping margins were commonly of the order of 30 to 40 per cent, and ranged as high as 66 per cent. By way of comparison, the highest tariff duty now available to industry (except TCF and PMV) is 12 per cent.

There is a tendency for industry to resort to anti-dumping action in periods of economic downturn or structural adjustment. This is highlighted by recent trends in cases initiated. Dumping actions last peaked in 1982–83, a period of economic downturn, when 100 cases were formally initiated (Figure R1).

As the current recession began to have its effect in 1990–91, the number of cases initiated increased to 73 from the previous year's total of 31. Cases initiated increased further to 88 in 1991–92. Many of the new cases appear to be revivals of old anti-dumping measures which had been terminated under the sunset clause which was introduced in 1988.

In the early 1980s, the number of total measures in force increased rapidly and peaked in 1984–85, when 203 were in place. Following the

Figure R1
Anti-dumping and countervailing actions[a], 1980–81 to 1992–93



a A measure or case is counted as one commodity from one country. If multiple countries are involved, they are counted as separate actions.
Source: ACS and Commission estimates

implementation of the Gruen report's recommendations (Gruen 1986), the number of measures in force declined dramatically to 21 in 1989–90. They subsequently increased to 77 in 1991–92. Recent changes to anti-dumping provisions may lead to further increases in actions.

Recent changes to anti-dumping provisions

Australian anti-dumping provisions have been typified by frequent rule changes. In 1986, the Government commissioned Professor Gruen to review anti-dumping legislation and administration. Legislative amendments arising from the review reduced the scope for assistance to be provided by the anti-dumping arrangements.

As a result of a review by the Department of Industry, Technology and Commerce in 1991, further legislative changes to Australia's anti-dumping procedures were introduced (Button 1991). These changes have made the system more 'accessible'. The first group of these changes took effect from 10 July 1992, and may be summarised as follows:

- the time allowed for Customs to reach a *prima facie* decision as to whether to investigate an anti-dumping or countervailing complaint was reduced from 35 to 25 days;
- the sunset provision on actions (introduced following the Gruen Review) was extended from 3 to 5 years — however, the currency of the measure can be challenged by the importer or the exporter at any time;
- the ADA is now required to publicise the imminent end of an anti-dumping action, and invite parties to apply for an extension of the measure — whereas, previously, the anti-dumping action simply ceased when the three years was up; and
- anti-dumping may be initiated where goods are considered both dumped, and subsidised, even though each of these factors, considered on its own, would not be sufficient to prove injury.

The second group of amendments were passed in December 1992, and came into effect on 1 January 1993 (Beddall 1992). These amendments, which were considered by the ADA (1992d, p.15) to be "quite complex", introduced a new system of determining dumping and countervailing duties which included the concept of an interim dumping duty. The interim duty is determined with reference to three amounts — the normal value, the export price and NIFOB value — which are ascertained at the time the anti-dumping action is taken. This interim duty is payable even if the exporter's later consignments are not technically 'dumped'. Consequently, the interim duty may exceed the amount strictly allowable under the GATT rules. To overcome this, the new provisions provide for the importer to request a refund of overpaid duties at six-monthly intervals, and for the duty itself to be reviewed at twelve-monthly intervals.

The new legislative provisions have the effect of increasing both the administrative burden and the level of dumping duties imposed, at least in

Table R1
Anti-dumping and countervailing activity, 1988–89 to 1992–93

	1988 –89	*1989 –90*	*1990 –91*	*1991 –92*	*1992 –93*
New cases [a]					
Cases under inquiry as at 1 July	19	16	19	53	43
- Customs		12	10	20	6
- ADA		4	9	33	37
New cases initiated [b]	21	31	73	88	77
Cases where measures imposed					
- at preliminary finding stage	9	11	40	70	19
- at final finding/review stage	15	5	12	43	27
Cases where measures not imposed	9	23	46	77	66
- at preliminary finding stage				40	49
- at final finding/review stage				37	17
Cases under inquiry as at 30 June					
- Australian Customs Service	12	10	20	6	14
- Anti-Dumping Authority	4	9	33	37	29
Measures					
Cases subject to measures as at 1 July	55	24	21	26	77
New cases subject to measures	15	5	12	43	27
Cases where measures removed					
- revocation	33	3	2	–	3
- release from undertaking	13	5	2	1	–
- lapsed (sunset provisions)	–	–	3	10	1
Cases eligible for review as at 30 June[c]	24	21	26	77[d]	68
Cases under review as at 30 June				2	7

– Nil.
a Cases defined as one commodity from one country.
b In 1992–93 one application for anti-dumping measures later withdrawn.
c This covers cases initiated prior to 1993. The new system for applying anti-dumping and countervailing measures provides for a review of the interim level of duty after duty has been in place for 12 months.
d Figures do not balance due to cases subject to appeal or court-initiated inquiry.
Source: ACS (1993f)

the short term. (Interest is not paid on the amount subject to refund.) The provisions also increase the incentive for an exporter to provide a formal undertaking to sell all future goods at the floor price, and hence, avoid paying dumping duties. The extension of the sunset provisions effectively extends the protective effect of all anti-dumping measures. The ADA's new role, in inviting applications for the renewal of the anti-dumping duty, can also be seen as making the continuation of an action easier. The amendments in essence put more onus on the importer or exporting country to prove an action is unnecessary and, consequently, less onus on the competing domestic producer to prove an action is warranted.

Anti-dumping activity in 1992–93

The information presented in Tables R1 and R2 point to the continued high level of anti-dumping actions by Australian industry. The upsurge in cases initiated, which started in 1990–91 with the onset of the recent recession, has been maintained. In 1992–93, 77 cases were initiated, a slight reduction on the 88 initiated in 1991–92 (Table R1). There were no price undertakings given in lieu of anti-dumping duties in 1992–93.

The period covered by Table R1 was one which saw many changes to the operation of the anti-dumping system. While the effects of the new measures introduced in 1992–93 are unlikely to be fully reflected in these data, it can be expected that the duration and number of actions in force will increase in the coming years. In addition, new rules governing the review of existing actions have the potential to increase the number of reviews-in-progress in future years.

The Chemical and petroleum products industry — a major producer of inputs to many other industries — has been the dominant initiator of anti-dumping and countervailing actions, with 36 per cent of total cases initiated over the period 1988–89 to 1992–93 (Table R2). In 1992–93, industries covered by Miscellaneous manufacturing accounted for the largest share (over 40 per cent) of new cases. The Chemical and petroleum products industry accounted for 23 per cent of cases initiated in that year.

Table R2
Anti-dumping and countervailing complaints initiated, by industry[a], 1988–89 to 1992–93

Industry	*1988 –89*	*1989 –90*	*1990 –91*	*1991 –92*	*1992 –93*	*Five year period total*	*per cent*
Food and beverages	3	9	11	18	10	51	17.6
Textiles	1	3	–	–	2	6	2.1
Paper and paper products	–	–	3	2	9	14	4.8
Chemical and petroleum products	5	7	43	32	18	105	36.2
Metallic minerals	–	2	–	–	–	2	0.7
Non-metallic mineral products	–	1	1	13	–	15	5.2
Basic metal products	–	4	–	–	3	7	2.4
Fabricated metal products	–	1	–	7	–	8	2.8
Transport equipment	–	–	7	4	1	12	4.1
Other machinery and equipment	5	3	4	–	2	14	4.8
Miscellaneous manufacturing	7	1	4	12	32	56	19.3
Total	**21**	**31**	**73**	**88**	**77**	**290**	**100**

– Nil.
a Cases defined as one commodity from one country.
Source: ACS (1993f)

Report by the Anti-Dumping Authority on tender dumping

In February 1992, the Commonwealth Government requested the ADA to conduct a review of so-called ‘tender dumping’ to assess the adequacy of current legislation (ADA 1992a).

Purchasers of large items of capital equipment, which take months or years to build, usually call for the supply of such items by tender. If overseas suppliers tender at a price lower than the normal price in their own country, then a *prima facie* case of tender dumping has technically occurred. If the normal anti-dumping procedures are followed, and injury is found to have been caused, then anti-dumping duties may be imposed on the imported equipment. But at that stage, a binding contract for the supply of the equipment would have been signed, and the Australian producer would not avoid injury by the imposition of the duty.

The ADA reported that despite widespread interest from industry when the review was announced, few submissions were received and little information was supplied by interested parties. In particular, no participant could provide factual evidence of a contract having been lost because of tender dumping. The ADA found that, as the practice was extremely rare there was no need to change Australian legislation. The Government has accepted this recommendation.

International developments

The Regional Trade Liberalisation Group, within the Asia Pacific Economic Cooperation (APEC) group, of which Australia is a member, met in late 1992 to discuss 'administrative aspects of market access' in the region. Submissions received from APEC members identified five non-tariff barriers which were of most concern, one of these being anti-dumping. A further meeting of the group in June 1993 gave members the opportunity to confirm and clarify these concerns. The group intends to submit recommendations on how to reduce the impediments and costs associated with non-tariff barriers, and plans to put forward proposals for their ongoing review.

The use of anti-dumping measures is becoming more prevalent internationally. The number of cases initiated by signatories to the GATT anti-dumping agreement increased from 186 in 1990–91, to 237 in 1991–92. Of these investigations, five were initiated by India and three by Japan. These investigations marked the first initiations by these two countries. Australia has traditionally been a heavy user of anti-dumping actions. In 1991–92, Australia reported more initiations of anti-dumping actions than any other of the 26 signatories to the GATT anti-dumping agreement (GATT 1993).

Australia's use of its anti-dumping provisions has been the subject of recent criticism by our trading partners and, in one case, has been the subject of a GATT investigation. Over the past year, there have been complaints from a number of countries in our region, in particular Korea, about Australia's level of anti-dumping actions against their industries. In

1992–93, Korean exports to Australia were the subject of six anti-dumping complaints. In 1992, the European Community challenged, under the GATT subsidies code, a countervailing action based on 1991 amendments to Australia's countervailing and anti-dumping provisions. These amendments introduced the concept of injury to suppliers of inputs used in a product competing with dumped goods as a factor to be considered in assessing material injury from dumping. Under the GATT codes, anti-dumping and countervailing actions can only relate to injury caused or threatened to an industry producing a like product. A GATT dispute settlement panel commenced hearing the case in March 1993, and no report had been issued by 1 September, pending further consultations between the parties.

APPENDIX S
ASSISTANCE TO AGRICULTURE AND MANUFACTURING

This appendix presents the Commission's new series of assistance estimates for Australia's agricultural and manufacturing sectors. The estimates are based on updated production and materials usage data.

Assistance to manufacturing continues to decline, with the average effective rate for the sector falling to 13 per cent in 1991–92 and then 12 per cent in 1992–93. By 2000–01, when the March 1991 Statement assistance reduction program is scheduled to be completed, the effective rate for the manufacturing sector is projected to fall to 5 per cent. The clothing, footwear, passenger motor vehicles and certain textiles industries will, however, continue to be afforded levels of assistance at the end of the program that are several times the sectoral average. The consumer tax equivalent of manufacturing assistance will decline, from over $8.6 billion in 1989–90, the base year for these estimates, to a projected $4.0 billion in 2000–01.

For the agricultural sector, the average effective rate of assistance fell from 16 per cent in 1990–91 to 12 per cent in 1991–92. However, if the one-off $300 million supplementary support payment for wool production was excluded from the estimates for 1990–91, the effective rate for that year would only be 11 per cent and measured assistance would have actually increased in 1991–92.

The Commission uses several standard measures to report on levels of assistance. The principal measures are nominal and effective rates of assistance. The *nominal rate of assistance on outputs* for an activity is defined as the percentage by which government assistance allows the average gross returns per unit of output to increase, relative to the *hypothetical* situation in which no assistance is provided. The *nominal rate of assistance on materials* is the percentage increase in the cost of intermediate inputs due to government intervention. The *effective rate of assistance* is defined as the percentage increase in returns to an activity's value added per unit of output, relative to the *hypothetical* situation of no assistance.[1] The effective rate of assistance assesses the net effect of the assistance structure as it takes into account assistance to output and value-adding factors as well as penalties on inputs. It provides an indication of the extent to which an activity has been advantaged or disadvantaged, relative to others.

These assistance measures facilitate comparisons of the relative incentive effects of assistance on different industries within a sector and over time. Other summary indicators of government assistance such as subsidy equivalents, price distortions and producer transfers are also provided in tables in this appendix and are defined in the relevant table footnotes.

The Commission's main emphasis in measuring and monitoring assistance has been to identify the major government interventions that differentially assist industries in each sector and to consistently measure, at the most disaggregated level practicable, the assistance within a sector. Reflecting their relative importance and data limitations, the forms of assistance measured are broader in agriculture than in manufacturing.[2] Hence, care should be exercised when making intersectoral comparisons.

The estimates reported below cover the major Commonwealth government interventions which selectively alter incentives between activities. The estimates include assistance provided via tariffs, quantitative import restrictions, local content schemes, certain export incentives and, for agricultural commodities, domestic pricing arrangements. The latest series of manufacturing assistance estimates includes, for the first time, some assistance to value-adding factors for TCF industries; namely, certain capital grants and loans at concessional rates of interest. This type of assistance to capital is also included in the agricultural assistance estimates, where it has traditionally been more important.

1 Value added is the return to land, labour and capital from the production process.

2 For a more detailed discussion of the methodology used to derive the estimates of assistance see IAC (1985, 1987).

Due to their relative sectoral importance and data limitations, however, the estimates do not cover the entire range of assistance provided by the Commonwealth. For example, State budgetary outlays reported in Appendix Q, anti–dumping actions reported in Appendix R, and many of the selective assistance measures reported in Appendix N, are not included. State government interventions that have an impact on the prices of agricultural commodities nationally are included in the estimates. However, any assistance (positive or negative) which may arise from the Commonwealth or State government provision of infrastructure is not included.[3]

Assistance to agriculture

Changes in the measurement of assistance

The assistance estimates presented in this appendix cover two series which overlap in 1990–91. The estimates in both series have been derived using the same general methodology. The current series of estimates includes the effect of recent changes in the cost structures associated with producing agricultural commodities. These estimates are based on revised data on the use of inputs — materials and services — and the depreciation of capital goods. For most commodities, ABARE Farm Survey data or ABS Agricultural Finance Survey data for the period 1981–82 to 1990–91 were used to construct average input to output ratios.[4] These ratios were applied to annual local values of production data to derive a notional value of materials and value added for each production year. Changes in these ratios will affect the level of value added and tax on materials and therefore impact on the effective rates of assistance. However, the nominal rate of assistance to output is not affected by changes in these ratios.

In the current series, tariff penalties on inputs used by non-traded goods and services — such as mechanical and veterinary services — are also included. Non-traded inputs are those inputs which are sourced

3 This is due to the difficulty in quantifying the level of assistance involved in activities where there is no clear alternative benchmark price.

4 Where data for the ten year period were not available, the longest series of data available over the period was used.

domestically and would not be imported or exported under free trade. The cost to user industries of non-traded goods and services can be inflated by the assistance regime. For example, tariff assistance on inputs used by industries producing non-traded goods can lead to higher prices. The regulatory environment may also lead to higher prices for non-traded inputs. Due to data limitations, however, the current treatment does not take the effects of these regulations into account.

As vegetables receive no commodity-specific assistance, estimates for individual vegetable commodities are not provided in the new series. Assistance to honey production is excluded from the new series due to the diminishing importance of the commodity in terms of its contribution to total farm-gate returns and difficulties in obtaining data on industry cost structures. Honey has traditionally received low levels of assistance.

Trends in measured assistance

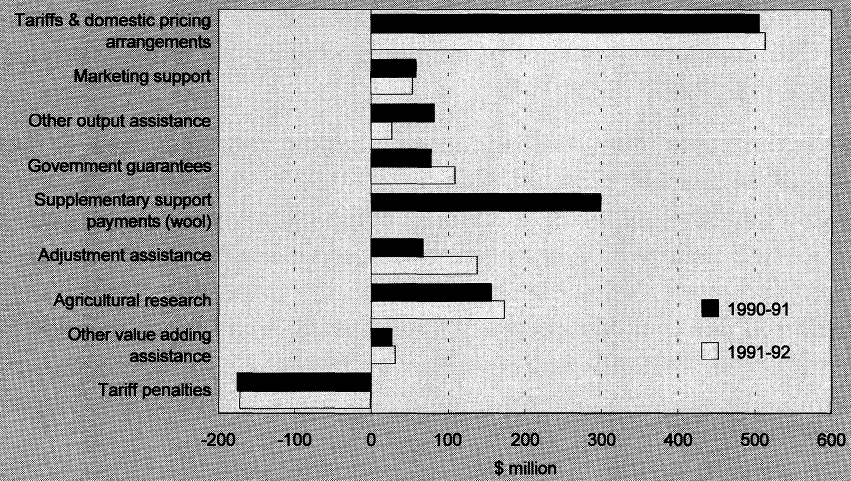
Trends and developments in agricultural assistance are summarised in this section. The following information on agricultural assistance is presented in tabular form:

- assistance to agriculture by form (Table S1, page 402);
- price distortions and producer transfers for agricultural commodities (Table S2, page 403); and
- nominal and effective rates of assistance by activity and standard deviations for the sector (Table S3, page 406).

Sectoral assistance

Assistance to the agricultural sector declined in 1991–92. Based on the current series of estimates, the effective rate of assistance fell from 16 per cent in 1990–91 to 12 per cent in 1991–92 and the nominal rate fell from 6 per cent to 4 per cent. These estimates were lower despite a decline of 3 per cent, or $537.5 million, in the local or farm-gate value of output for the commodities included in the estimates. Significant falls in value of output occurred for wool, pigs, beef, tobacco, vegetables and sugar.

Figure S1
Assistance to agriculture by form, 1990–91 and 1991–92



Source: Commission estimates

In 1990–91, the agricultural sector received increased assistance over previous years, due largely to the Commonwealth Government's recovery package for wool. If the wool industry had not received the one-off $300 million supplementary support payment, the effective rate of assistance for the sector in 1990–91 would have been around 11 per cent, instead of the reported 16 per cent, and the sector's effective rate of assistance for 1991–92 would have reflected an increase in measured assistance.

The most significant change in forms of assistance between 1990–91 and 1991–92 was the termination of the $300 million supplementary support payment for wool (Figure S1). This decline was partially offset by increases in a number of other forms of assistance.

Adjustment assistance increased significantly in 1991–92. Assistance provided under Parts A and B of the Rural Adjustment Scheme increased from $49 million to $124 million as a result of the continued down-turn in the rural sector. The bulk of the increase in adjustment assistance went to wool producers and those experiencing drought in New South Wales and Queensland. Total assistance from government guarantees also increased, from $79 million to $110 million. Estimated assistance to wool via the

Commonwealth government loan guarantee on stockpile debt increased significantly in 1991–92, from $49 million to $93 million. However, assistance provided by the Government guarantee on the 1991–92 wheat pool borrowings was estimated at almost half that provided to the 1990–91 pool. The cost to government of income averaging for primary producers increased marginally in 1991–92.

Overall assistance from tariffs, market support payments and domestic pricing arrangements changed little in 1991–92. However, changes in producer transfers for some individual commodities were significant and are reported below. Assistance provided through export inspection services decreased as the Australian Quarantine Inspection Service moved towards 100 per cent cost recovery. Assistance from that source fell from $37 million in 1990–91 to $8 million in 1991–92. In aggregate, tariff penalties on capital and intermediate inputs were relatively unchanged in 1991–92.

Commodity assistance

Wool

Assistance to wool declined in 1991–92 from historically high levels in the previous year. In 1991–92, the nominal and effective rates of assistance were 6 per cent and 17 per cent, respectively. The wool industry continued to receive assistance through the government guarantee on AWRC borrowings, and also received the first of two $22.5 million grants and an increase in funding under the Rural Adjustment Scheme. Funding under the Rural Adjustment Scheme increased further in 1992–93. Assistance is expected to continue at relatively high levels while the government guarantee on stockpile debt remains. The program of trade enhancement and foreign aid announced in response to the Wool Review Committee report also has potential to provide assistance to wool production.

Details of recent developments in wool marketing arrangements are given in Appendix N.

Wheat

Assistance to wheat growing rose in 1990–91, but in 1991–92 returned to the low level of previous years. The nominal rate of assistance declined from 4 per cent in 1990–91 to 1 per cent in 1991–92, whilst the effective rate fell by 7 percentage points to 4 per cent.

The higher level of assistance measured in 1990–91 reflected a compensation payment to wheat producers for uninsured contracts lost due to the Iraq trade embargo. The $248.6 million National Interest Business (NIB) pay-out to wheat producers arising from these Iraqi trade sanctions was not included in the 1990–91 estimates of assistance. Although insurance or finance provided under the Commonwealth Government's NIB scheme can provide assistance, insurance pay-outs give only a weak indication of the assistance provided (Appendix O). The government guarantee on wheat pool borrowings also provides assistance to wheat growing. This assistance declined for the 1991–92 pool as a result of lower levels of outstanding borrowings and the anticipated closure of the pool.

Sugar

Assistance is provided to raw sugar production by statutory marketing arrangements and a tariff on imports, which allow domestic prices to be raised above the export parity price. The specific tariff rate for sugar fell from $115 per tonne in 1990–91 to $76 per tonne in 1991–92 and was further reduced to $55 per tonne on 1 July 1992. This decline in tariff assistance is reflected in a lower producer transfer and a decline in nominal and effective rates of assistance. The nominal rate fell 3 percentage points to 7 per cent in 1991–92 and the effective rate declined from 27 per cent to 21 per cent.

The Government announced changes to sugar assistance and regulation in February 1993 (Crean 1993a). The sugar tariff is to be maintained at the level of $55 per tonne until 30 June 1997, with a review of the tariff commencing in 1995–96. Single desk selling will continue for both the domestic and export markets and the price differential paid to growers producing cane on assigned land in excess of that required to produce the farm peak will be phased down. These arrangements are to be reviewed in 1996. Government funding of $20 million over four years was committed for industry infrastructure development. An estimated $8 million will be spent in 1993–94.

Dairy

Estimates of assistance to the production of milk are measured by reference to its end use. Assistance to manufacturing milk (that is, milk used in the manufacture of dairy products) reflects the support provided by the Commonwealth to dairy products. This support sets the minimum level of assistance to all milk produced. State government support provides premiums for sales of fresh (liquid) milk.

Assistance to manufacturing milk declined in 1991–92. The effective rate of assistance declined by 11 percentage points to 33 per cent and the nominal rate fell from 20 per cent in 1990–91 to 16 per cent in 1991–92. Market support payments (subsidies) on exports of manufactured dairy products fell in 1991–92. The 1991–92 market support payments averaged 22 per cent of average export prices. This rate of support became the maximum level for 1992–93. Commencing in 1993–94, this maximum rate of support will be reduced in equal annual steps to 10 per cent in 1999–2000.

Assistance to fresh milk production increased further in 1991–92. The producer transfer to fresh milk production increased by $55 million in 1991–92, reflecting higher farm-gate returns in all States. The effective rate of assistance increased from 129 per cent in 1990–91 to over 200 per cent in 1991–92, maintaining fresh milk as the most highly assisted agricultural commodity.

Citrus

The nominal rate of assistance to citrus production fell from 5 per cent in 1990–91 to 3 per cent in 1991–92. The effective rate fell 3 percentage points to 6 per cent over the period. The estimates of assistance to citrus from 1988–89 to 1991–92 are based on a new methodology. As most citrus juice is sourced from developing countries, it has been assumed that the developing country (DC) tariff rate, rather than the general tariff rate, on orange juice sets a floor price for all citrus production, including citrus directed to the fresh fruit and fresh juice markets. Fresh juice and fresh fruit can command a market premium over and above this floor price. Based on the new methodology, the fall in assistance to citrus production is consistent with the fall in the level of the developing country tariff over the period.

As a result of the Government's decision to phase out DC tariff preference margins for some commodities, the DC preference on frozen concentrated orange juice will be removed. (For further discussion of the DC preference decision, see page 396). Imports of frozen concentrated orange juice are the major source of competition for the domestic citrus industry. Brazil, the major supplier of these imports, has benefited from the DC preference margin of 5 percentage points. Due to the Government's decision, the DC rate on frozen concentrated orange juice will be fixed at its pre-1 July 1993 level of 10 per cent until the general rate is phased to that level on 1 July 1994. The general rate of duty will then apply. Tariff assistance to citrus production will remain at 1992–93 levels until 1 July 1995.

Estimates of assistance to the citrus industry only include the assistance afforded by the tariff. The estimates do not incorporate the assistance provided by the sales tax differential on fruit juice. This concession has the potential to provide high levels of assistance to the industry when local juice available for blending with imported juice is in short supply.

Eggs

The production of eggs has been the subject of considerable deregulation in recent years. The NSW egg industry was completely deregulated in 1988–89 (IC 1992d, Appendix F). This deregulation has put pressure on the arrangements in other States.

Assistance to the egg industry fell in 1991–92 as the result of pressures from interstate trade in eggs. The effective rate of assistance fell from 58 per cent in 1990–91 to 23 per cent in 1991–92 and the nominal rate declined 10 percentage points to 8 per cent. Estimates since 1989–90 are based on the difference between the weighted average deregulated farm-gate price and the average price received by farmers in the States maintaining regulation.

The South Australian egg industry was deregulated in May 1992 and, following pressures from interstate trade, the Victorian egg market was completely deregulated in June 1993. Flows of surplus eggs into Queensland forced the local price down, as regional producers attempted to maintain market share. In sharp contrast to the deregulation in other States, the Queensland Government announced in August 1993 that a single statutory-backed marketing board would replace the existing two marketing boards and two co-operative companies. The new arrangements are intended to 'maintain stability in the industry hen quotas and the compulsory acquisition of eggs will be retained for five years' (Casey 1993). The arrangements are to be reviewed after 3 years.

Tobacco

Assistance to tobacco has declined continuously since 1988–89, with the effective rate falling from 110 per cent to 40 per cent in 1991–92. The nominal rate fell from 22 per cent in 1990–91 to 16 per cent in 1991–92, which is approximately one-third the level of 1988–89. The fall in assistance can be mainly attributed to the significant increase in the cost of imported tobacco in the 1992 growing season and the policy of bringing the quota price closer to the world parity price. The Government has extended the Tobacco Industry Stabilisation Plan — under which a marketing quota for tobacco leaf is set and an average minimum selling price is recommended — by two years to 30 September 1995. The end of the plan will now correspond with the termination of the local content scheme for tobacco leaf. The Government has announced that it will be sending the Commission a reference on the tobacco industry.

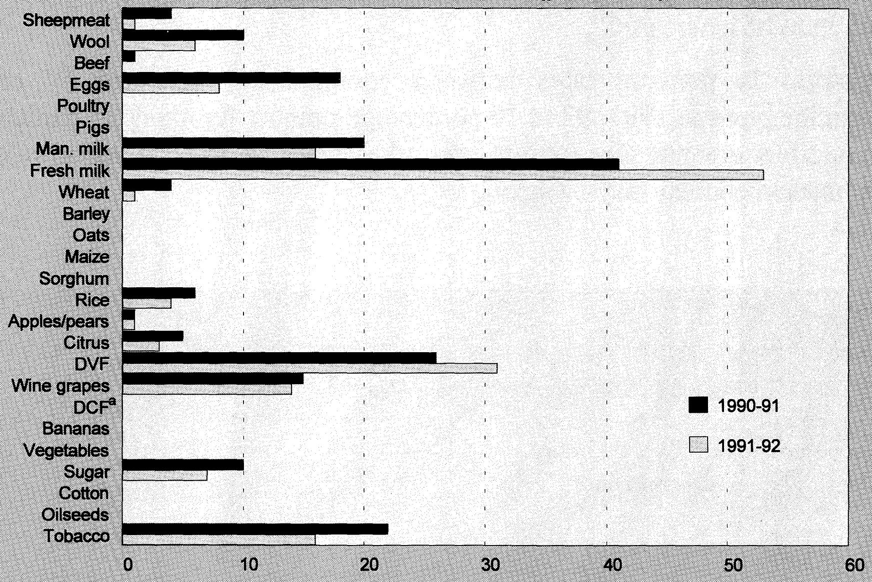
Dried vine fruit (DVF)

In accordance with the phased reductions in tariffs, assistance afforded the production of currants and raisins has continued to decline. The Commission continues to observe a wide disparity in the returns received for sultanas on the domestic and export markets. This disparity increased from 40 per cent in the 1990 season to 54 per cent in the 1991 season. As a result of the higher price distortion for sultanas, the average effective rate of assistance for dried vine fruit increased by 19 percentage points to 80 per cent. For a discussion of the factors which may contribute to the high level of assistance measured for sultanas, see the Industry Commission's report on Horticulture (IC 1993a, pp.87-88).

Disparities in assistance

Disparities in assistance between agricultural activities and commodities increased in 1991–92. Disparities are measured by the standard deviation which indicates how the level of assistance afforded individual commodities differs from the average for the sector. The higher the

Figure S2
Average nominal rates of assistance to agricultural commodities, 1990–91 and 1991–92 (per cent)



a Deciduous canning fruit.

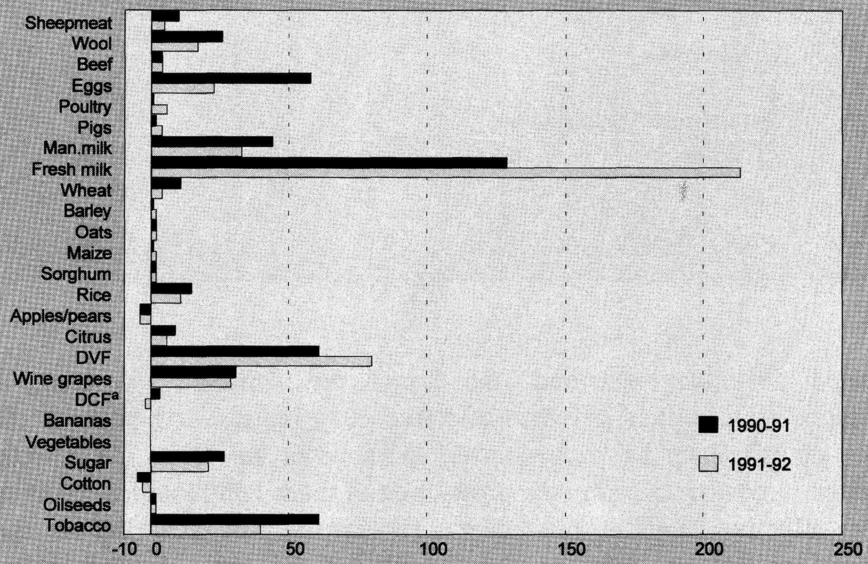
Source: Commission estimates

standard deviation measured, the larger the variability in rates of assistance. Disparities between effective rates indicate the potential for losses of efficiency in resource use. Resources are more likely to be attracted to or maintained in the production of those commodities receiving higher effective levels of assistance. The disparity between the nominal rates of assistance indicates the potential for losses of consumption efficiency arising from distorted consumer choices (Figure S2).

Disparities in effective rates of assistance increased significantly in the early 1980s and declined from 1986–87. Since the late 1980s, disparities in effective rates of assistance have begun to rise again. Disparities between the effective rates of assistance to agricultural commodities increased from 22 to 28 percentage points in 1991–92. As shown in Figure S3, the increase in effective rates of assistance to dried vine fruit and fresh milk have been instrumental in increasing disparities measured for 1991–92. In contrast, many other commodities receive low, and often negligible, assistance. The increase in disparities between effective rates indicates that the potential for losses of efficiency in resource use in agriculture has increased.

Disparities in nominal rates between commodities increased by one percentage point in 1991–92 to 10 percentage points. As many agricultural commodities are not close substitutes, the effect of these disparities on consumption choices may be small.

Figure S3
Average effective rates of assistance to agricultural commodities, 1990–91 and 1991–92 (per cent)



a Deciduous cannning fruit

Source: Commission estimates

Assistance to manufacturing

This section contains a discussion of recent changes in manufacturing assistance, based on the Commission's new series of estimates. In addition, some of the more important recent changes in manufacturing assistance policy are reported and there is also a brief explanation of some of the factors contributing to the observed changes in measured assistance between series. The following information on manufacturing industry assistance is presented in tabular form:

- assistance to manufacturing by form (Table S4, page 409);
- average nominal rates of assistance on outputs for manufacturing industries (Table S5, page 410);
- average nominal rates of assistance on materials for manufacturing industries (Table S6, page 420);
- average effective rates of assistance for manufacturing industries (Table S7, page 430);
- standard deviations (a measure of dispersion) for nominal rates of assistance on outputs for manufacturing subdivisions (Table S8, page 440);
- standard deviations for effective rates of assistance for manufacturing subdivisions (Table S9, page 441); and
- subsidy equivalents, tax on materials and consumer tax equivalents for manufacturing subdivisions (Table S10, page 442).

Methodology

Assistance estimates are presented for both the Commission's new series as well as for the two final years from the previous series. Constant production and material usage patterns are assumed for all years within each series of manufacturing estimates. The base years chosen for each series are those years for which detailed materials usage data have been available from the ABS. For the new series, the most recent materials usage data available relate to 1989–90, and the production patterns for that year are the basis of the current series of estimates. For the previous series, 1983–84 is the base year.

The periodic rebasing of the manufacturing assistance estimates is necessary to incorporate the effects of changes in the structure and composition of industries. At the same time, the Commission has taken the opportunity to review aspects of methodology, procedures and data sources. As well as being based on the most recent production data available, the latest series of estimates includes some new forms of assistance and revised treatment of some other forms of assistance.

The new series presented in this appendix includes assistance estimates from 1989–90 to 1992–93, as well as projections based on the schedule of assistance reductions announced in the March 1991 Statement. As the schedule of reductions is known in advance, it is possible to project the assistance levels through to the end of the program. Projections are provided for each year from 1993–94 through to 1996–97 (the end of the program for most manufacturing industries), as well as revised projections of assistance for 2000–01 (when textile, clothing and footwear and passenger motor vehicle industries' phasing will be completed).

The previous series of estimates covered all years from 1982–83 to 1990–91. The current series therefore overlaps with the previous series and the major tables presented in this appendix also provide estimates for the two final years of the last series. The comparison of estimates for the overlap years provides an indication of the net or combined effect of structural change (changes in production patterns) and all other elements of the rebasing exercise including methodological changes. The major factors that have contributed to the observed changes in rates of assistance between the 1983–84 series and the 1989–90 series are briefly discussed in the last section on 'Sources of change in rates between series'.

An information paper, presenting the new base-year series as well as all previous series of estimates for both the manufacturing and agricultural sectors, is planned for publication. The paper will discuss longer-term trends in assistance and the major influences on measured rates in more detail.

In the next section recent trends in assistance are discussed in the context of the latest series and then the following section looks at some important recent policy decisions with implications for industry assistance.

Trends in measured assistance

Assistance in 1991–92 and 1992–93

The new series of assistance estimates presented in this appendix includes, for the first time, estimates of assistance for 1991–92 and 1992–93. Measured rates of assistance continue to fall in line with the Government's program of reductions in assistance, with the sectoral nominal rate on outputs, nominal rate of assistance on materials and the effective rate of assistance standing at 7, 4 and 12 per cent respectively, in 1992–93. The effective rate has fallen substantially from its level of 22 per cent in 1983–84 (Figure S4).

The Clothing and footwear (ASIC 24) and Textiles (ASIC 23) industry subdivisions, with effective rates of 73 per cent and 41 per cent respectively, continued to be afforded very high levels of assistance relative to other industries in 1992–93. Transport equipment (ASIC 32) also remains relatively highly assisted with an effective rate of 29 per cent. Within the Transport equipment subdivision, the effective rate for the motor vehicles and parts industry group (ASIC 323) — which includes the industries covered by the motor vehicle plan — was 41 per cent in 1992–93.

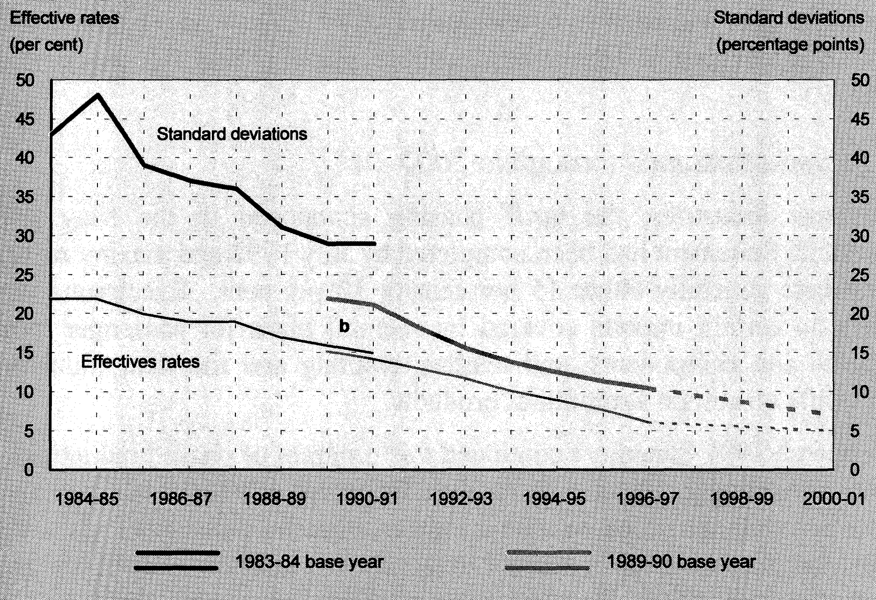
Projected assistance through to 2000–01

For most industries, the tariff phasing announced in the May 1988 Economic Statement had been completed by July 1992 and maximum tariff rates were generally either 15 per cent or 10 per cent. Exceptions were tariffs on certain imports covered by sectoral plans for passenger motor vehicles and components, and textiles, clothing and footwear industries, and tariffs on certain agricultural products.

The March 1991 Statement continued this program of phased reductions in protection, setting out a fixed schedule for reductions that will leave most manufacturing industries with little industry-specific assistance. By 1 July 1996, the maximum tariff, subject to the above exceptions, will be phased down to 5 per cent. Bounties are also being lowered in line with the reductions in tariffs. In addition, protection provided by the sectoral plans for the textile, clothing and footwear, and passenger motor vehicles industries is to be cut substantially by the year 2000, but will remain high relative to other activities. On 1 July 2000, passenger motor vehicles and components and most textile and footwear industries will be assisted by tariffs of 15 per cent, while clothing imports will attract tariffs of 25 per cent. Import quotas for textiles, clothing and footwear were abolished, as scheduled, on 1 March 1993.

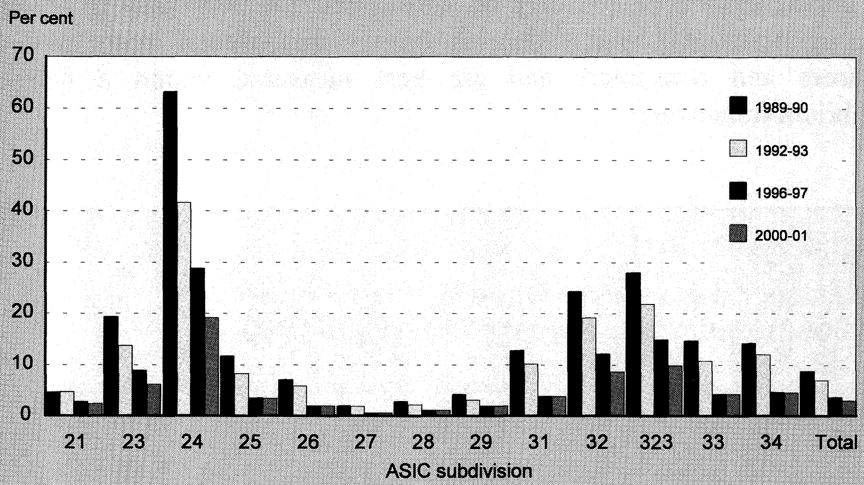
In 1996–97, at the completion of phasing for most manufacturing industries, the effective rate for manufacturing is projected to fall to 6 per cent. Assistance is projected to decline further to 5 per cent by 2000–01, when the program is fully implemented for all industries. The average nominal rates of assistance on outputs and materials are projected to decline to 4 and 2 per cent respectively by 1996–97, with the nominal rate on outputs projected to decline further to 3 per cent by 2000–01.

Figure S4
Average effective rates of assistance and standard deviations for the manufacturing sector[a], 1983–84 to 2000–01



a Effective rates and standard deviations for 1993-94 to 1996-97 and the estimate for 2000-01 are projections.
b The break in the series of effective rates and standard deviations reflects the periodic rebasing of the estimates.
Source: Commission estimates

Figure S5
Nominal rates of assistance for manufacturing subdivisions, various years 1989–90 to 2000–01



21	Food, beverages and tobacco	28	Non-metallic mineral products
23	Textiles	29	Basic metal products
24	Clothing and footwear	31	Fabricated metal products
25	Wood, wood products and furniture	32	Transport equipment
26	Paper, paper products, printing and publishing	323	Motor vehicles and parts
27	Chemical, petroleum and coal products	33	Other machinery and equipment
		34	Miscellaneous manufacturing

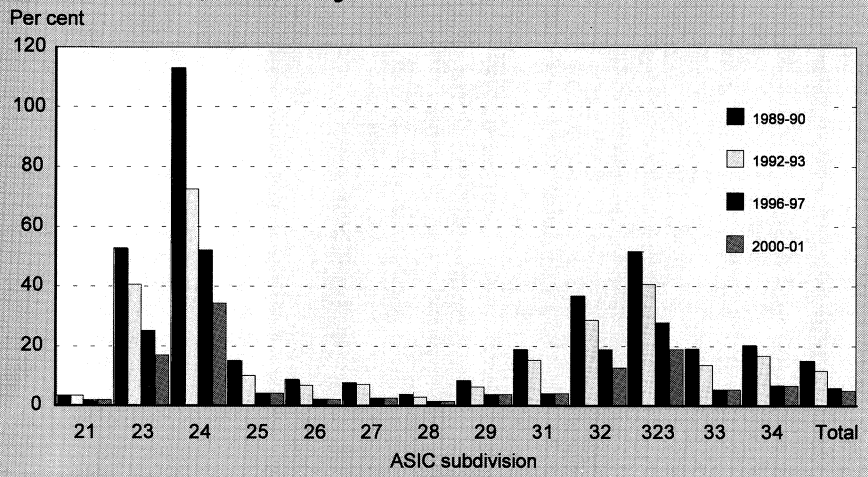
Source: Commission estimates

Even when the March 1991 Statement's program of assistance reductions has been fully implemented in 2000–01, the Clothing and footwear, Textiles, and Transport equipment industries (especially the Motor vehicles and parts industry group) will still be afforded assistance levels several times the average for the manufacturing sector as a whole. Clothing and footwear will remain the most highly assisted industry subdivision with nominal and effective rates in 2000–01 projected to be more than six times the equivalent manufacturing averages and twice the projected rates for the next most highly-assisted industry subdivision (Figures S5 and S6).

Consumer tax and subsidy equivalents

The Commission's estimates of assistance can also be expressed in monetary equivalents. The gross and net subsidy equivalents; tax on materials; and consumer tax equivalents — shown in Table S10 — provide an indication of the income transfers resulting from the assistance structure. It is important to note that they do not indicate the economic or welfare costs of assistance which depend on the behavioural responses of producers and consumers and are best measured within a general equilibrium framework.

Figure S6
Effective rates of assistance for manufacturing subdivisions, various years 1989–90 to 2000–01



21	Food, beverages and tobacco	28	Non-metallic mineral products
23	Textiles	29	Basic metal products
24	Clothing and footwear	31	Fabricated metal products
25	Wood, wood products and furniture	32	Transport equipment
26	Paper, paper products, printing and publishing	323	Motor vehicles and parts
27	Chemical, petroleum and coal products	33	Other machinery and equipment
		34	Miscellaneous manufacturing

Source: Commission estimates

The consumer tax equivalent for the manufacturing sector has fallen from over $8.6 billion in 1989–90 to $7.3 billion in 1992–93 and is projected to decline to $4 billion in 2000–01. The net subsidy equivalent estimates for the corresponding years were $9.4 billion, $7.7 billion; and $3.3 billion.

The tax and subsidy equivalent measures need to be interpreted cautiously since they are derived from 1989–90 base year production levels and, in the case of gross subsidy equivalents and taxes on materials, can involve an element of double counting. For a more detailed discussion of the derivation and interpretation of these measures see IAC (1987).

Disparities in assistance

Differences (disparities) in levels of assistance between and within industries are an important feature of an assistance structure. The larger the disparities in effective assistance levels, the greater the potential for resources to be used in activities which do not maximise economic welfare. In addition, wide disparities in nominal rates for similar outputs indicate the potential for losses in consumption efficiency. The Commission uses the standard deviation as a measure of the dispersion of assistance levels.

For the manufacturing sector, the standard deviation for effective rates of assistance fell from 43 percentage points in 1983–84 to 16 percentage points in 1992–93 (Figure S4). Disparities in assistance levels are highest in the Clothing and footwear, Textiles and Transport equipment subdivisions and, whilst they are projected to fall considerably by 2000–01, disparities in these subdivisions will still be substantially higher than those estimated for the other subdivisions (Table S9).

Recent changes in manufacturing assistance policy

Whilst reductions in protection are generally proceeding according to the schedule set out in the March 1991 Statement, there have been a few policy decisions recently which have tended to partially offset these reductions, particularly for industries that are already relatively highly assisted.

Textiles, clothing and footwear

As scheduled, the Government abolished TCF quotas on 1 March this year. However, there have been other policy changes designed to ease the adjustment pressure on these industries and promote restructuring. The measures being employed (such as special grants and loans at concessional rates of interest) have tended to be more discretionary and generally firm specific. Where appropriate, these grants and concessional loans have been incorporated into the assistance estimates. Changes to the TCF Plan announced or initiated during 1992–93 are discussed in Appendix N and are therefore not discussed in any detail below. Assistance to TCF exports is reported in Appendix O.

Passenger motor vehicles

Replacement parts for passenger motor vehicles (PMV) were excluded from the general phasing announced in the March 1991 Statement and were to remain at their July 1992 rate of 15 per cent in a measure designed to assist local PMV component manufacturers.

The intention was that the higher rate only apply to components for use in PMV and passenger car derivatives (ie station wagons, utilities and panel vans). In practice, it is often difficult to distinguish between parts designated for different end uses and the decision has been implemented in such a way as to potentially extend the higher levels of tariff assistance to a whole host of components that are of a kind used in PMV, but can also be used in non-PMV vehicles or in some cases even to parts with more general application throughout industry. These parts would otherwise have been subject to tariff rates phasing to 5 per cent.

The implications of the decision are discussed in more detail in the discussion of the PMV assistance arrangements in Appendix N.

Developing country preferences

On 20 February 1993, the Prime Minister announced (Keating 1993a) the phased removal, for selected commodities, of the 5 percentage points developing country (DC) preference margins applying under the Australian System of Tariff Preferences (ASTP). The goods covered by the decision are, broadly, dried fruit, fruit juice, sugar, canned food, chemicals, textiles, clothing and footwear. The margin is to be phased out for these selected imports from all but the Forum Islands countries and 49 of the least developed countries and places (ACS 1993e). The phased removal of the margin of preference for all imports from the four 'tigers'— Hong Kong, the Republic of Korea, Singapore and Taiwan Province, was announced in the March 1991 Statement and commenced on 1 July 1992.

The removal of the preference margin largely reflects the Government's judgment that the margin could no longer be justified on the basis of the actual cost disabilities of the recipient countries. For example, a substantial proportion of Australia's imports of TCF goods is presently from developing countries. To the extent that these countries are the most efficient/lowest cost, producers and suppliers from these sources are determining the competitive price faced by Australian producers of these products, and the removal of the margin of preference will provide additional protection to local producers.

The phasing out of the margin of preference for the specified countries and commodities will be achieved by fixing the DC rate of duty at its pre- 1 July 1993 level until the general rate of duty is reduced to that level. After that time, the general rate of duty will apply. Thus, the reductions in the DC rates of duty that were to have occurred on 1 July 1993 as the next phase of general rate reductions was implemented (to maintain the fixed 5 percentage point margin) did not occur for the types of goods and from the countries, described above. In the case of textiles, clothing and footwear, where phasing dates are being changed from 1 March each year to 1 July (to bring these industries into line with the phasing dates applying more generally), the initial impact of the decision will not be until 1 July 1994.

The combined effect of delaying the next cut in general rates by an additional four months (to synchronise phasing dates) and the fixing of DC rates until these general rates are reduced to the same level is to provide some domestic producers with a relatively long period of stable protection. For many products, including some of the most highly-assisted apparel, finished textiles and footwear articles, the rates of tariff assistance applying to imports from Australia's major competitors will remain unchanged until July 1995, thereby further advantaging these industries relative to other activities.

Also, as announced in the 1992 TCF Industry Statement, the preferential rate applying to imports of carpet from Canada is to be phased out. The rate of duty applying to imports of carpet from Canada has been frozen at the pre-March 1993 level until the general tariff rate falls to the same level, from which time these imports will be subject to the general tariff rate.

Bounty assistance

The book bounty and the shipbuilding bounty, which were due to end by December 1993 and June 1995 respectively, have both been extended. The Shipbuilding bounty will phase down in line with general manufacturing tariffs from its current level of 10 per cent to 5 per cent by June 1996. The book bounty is to be phased down from its current rate of 13.5 per cent of the value of production to a rate of 4.5 per cent by January 1997. The bounty will also be extended to many types of directories.

Sources of changes in rates between series

Whilst at the sectoral level changes in measured assistance between series have been relatively minor, there have been some very significant changes for certain industries, particularly in effective rates of assistance. The observed changes in effective rates of assistance are due to a combination of structural change and a number of other factors. These can be classified into the following broad categories:

- the use of more up-to-date production and materials usage data and revised tariff concordances;
- changes in the unassisted value added and materials-to-output ratios for industries; and
- other factors — including revised treatment of assistance/methodological changes or inclusion of new forms of assistance; and the use of more up-to-date agricultural price distortions.

For most industries, changes in assistance between the new series and the old are the net result of a number of different factors and it is generally very difficult to determine the exact contributions of each of these to the overall measured change. It is possible, though, in most cases to identify the most important factors.

New production data

For a large proportion of industries, measured rates of assistance for the overlap years have changed between series mainly because of changes that have broadly been categorised as structural change. These include changes in production patterns induced by technological change, improvements in technical efficiency, changes in consumer preferences (which see new products introduced and old products replaced), or resulting from resource flows induced by changes in government assistance over the period.

These changes are reflected in changes in the physical size of each industry; and assisted materials to output ratios and value added. For example, changes in measured assistance within the Motor vehicles and parts industries group, primarily Motor vehicles (ASIC Industry 3231) are largely the result of a significantly lower materials to output ratio and higher value added in 1989–90 compared with 1983–84. However, the changes are also partly a function of the improved treatment in the new series of estimates of the export facilitation and automatic duty free entitlement arrangements.

Changes in effective rates at the sectoral level or at various levels of sub-aggregation, ie industry group (3-digit) or industry subdivision (2-digit), also reflect changes in the relative share of unassisted value added of each industry, which is a function of both changes in assisted value added shares and relative changes in the levels of assistance afforded outputs and materials used in each industry.

Changes in unassisted materials to output ratios

Some of the largest changes in effective rates of assistance between series, for example in a number of clothing industries (ASIC Industry group 245), are explained mainly by large changes in the *hypothetical* unassisted materials-to-output ratios. As indicated earlier, the effective rate measures the proportional change in value added due to the assistance afforded by government intervention. Unassisted values are therefore the appropriate benchmark with which to measure this change. Unassisted values of output and materials and hence materials-to-output ratios are derived by deflating assisted levels by estimated nominal rates. As a result of this methodology and the relatively higher assistance afforded these industries in the previous base year, materials-to-output ratios were higher, and unassisted value added relatively lower, than in the current series. The Commission has previously emphasised the sensitivity of larger effective rate estimates to even relatively small changes in assistance levels and unassisted value added.

Other sources of change

The changes between series in effective rates of assistance for the Dairy (ASIC industry group 212); Sugar (ASIC 2171/2176); and certain other industries within the Food, beverages and tobacco subdivision (ASIC 21), are largely explained by the *use of more up-to-date estimates of agricultural price distortions*.

The *allocation of bounty payments* has also been improved *inter alia* by taking into account the broader coverage of certain bounty schemes that was announced in the March 1991 Statement. The treatment of assistance under the TCF Plan has also been improved, with certain structural adjustment assistance provided through the Industry Development Strategy (IDS) being incorporated in the measures for the first time, and a revised treatment of the Yarns Bounty Capitalisation Grants scheme.

The *Industry Development Strategy*, which has been allocated $160 million over the life of the TCF Plan, has a number of components. However, three schemes attract the bulk of the funding and only these have been included in the Commission's estimates (for further details of the IDS and other recent developments in the TCF Plan see Appendix N). The IDS assistance, in the form of grants and loans at concessional interest rates, increases returns to value-adding factors (capital) directly and so is reflected in the effective rate of assistance but not the nominal rates. Assistance to value-adding factors has been relatively important over the years for agricultural activities but much less important for manufacturing industries and is included in the manufacturing estimates for the first time in the new series. The IDS assistance has been allocated across a number of TCF industries with some of the largest grants/loans being made to the wool scouring and top making industry (ASIC 2342) and also the leather tanning and fur dressing industry (ASIC 3451), which is the only recipient industry not classified by the ABS within the Textiles and Clothing and footwear industry subdivisions.

Under the *Yarns Bounty Capitalisation Grants* scheme, recipients of the yarn bounty could 'trade in' future bounty payments for a lump-sum capitalisation grant, to be used for approved purposes. These grants have also been treated as assistance to value-adding factors. Since the grant was essentially based on the discounted stream of projected future bounty payments, the Commission has decided to calculate assistance as if the bounty continued to be paid each year, with payments phasing down according to the previously announced bounty-rate phasing schedule. The alternative of incorporating the whole of the capitalised grant into the assistance estimates for a single year would have provided a somewhat misleading indicator of the extent to which production decisions may have been altered by the assistance. The effect of treating the capitalisation grants as assistance to capital rather than assistance to output is to make output assistance for the affected industries lower in the new series. However, effective rates of assistance would not be changed by the different treatment. A *revised ASIC industry allocation* of the capitalisation grants compared to the bounty payments in the old series also provides an explanation of changes in effective rates of assistance for certain industries between series.

Table S1
Assistance to agriculture by form, 1987–88 to 1991–92[a]
($ million)

	Previous series			*Current series*	
	1987 –88	*1988 –89*	*1989 –90*	*1990 –91*	*1991 –92*
Assistance to outputs					
Domestic pricing arrangements[b]	551	375	403	478	482
Tariffs	48	70	42	29	33
Local content schemes	19	23	22	14	9
Export incentives	18	14	16	9	11
Export inspection services[c]	37	67	59	37	8
Marketing support	35	27	25	59	55
Underwriting arrangements	2	–	–	22	–
Government guarantees	–	–	30	79	110
Wool supplementary support payments	–	–	–	300	–
Total	**710**	**576**	**597**	**1027**	**708**
Assistance to value-adding factors					
Adjustment assistance	58	60	72	68	139
Agricultural research	134	129	144	157	174
Income taxation concessions[d]	280	290	205	19	27
Natural disaster relief	30	36	14	9	5
Total	**502**	**515**	**435**	**253**	**345**
Assistance to inputs					
Disease control[e]	14	9	10	11	8
Stockfeed[f]	..	-17	–	–	–
Tariffs on inputs[g]	-114	-122	-118	-100	-103
Tariffs on plant and machinery[g]	-147	-171	-128	-76	-68
Total	**-247**	**-301**	**-236**	**-165**	**-163**

– nil.
.. less than $0.5 million.
a Estimates for 1990–91 and 1991–92 are based on revised cost structures.
b These estimates include the effects of any import restrictions which enable the domestic price to exceed the landed duty-free price of competing imports (eg tariffs on dried vine fruits and sugar imports).
c Since 1989–90 assistance has been based on shortfalls from 100 per cent cost recovery.
d A small amount of this assistance supports activities for which nominal and effective rates have not been estimated.
e Covers assistance provided by the Bovine Brucellosis and Tuberculosis Eradication Campaign.
f The effects of domestic pricing arrangements, which ended on 30 June 1989, for stockfeed wheat used in pig, poultry and egg production. These arrangements could either tax or subsidise user industries.
g The additional costs incurred due to assistance raising the prices of inputs. The current series includes the effect of tariffs on materials used in non-traded inputs.
Source: Commission estimates

Table S2
Price distortions and producer transfers for agricultural commodities[a,b], 1987–88 to 1991–92

Activity/commodity description	1987–88		1988–89		1989–90		1990–91		1991–92	
	Price distortion	*Producer transfer*	*Price distortion*	*Producer transfer*	*Price distortion*	*Producer transfer*	*Price distortion*	*Producer transfer*	*Price distortion*	*Producer transfer*
	(%)	*($m)*	*(%)*	*($m)*	*(%)*	*($m)*	*(%)*	*($m)*	*(%)*	*($m)*
Horticulture										
Dried vine fruits[c]										
Sultanas	52	16	45	13	28	10	40	19	54	19
Currants	15	1	20	1	18	1	17	1	15	1
Raisins	15	..	20	1	18	1	17	1	15	1
Wine grapes	18	27	21	53	16	32	15	22	14	28
Citrus[d]	10	12	11	18	6	9	4	7	2	5
Deciduous canning fruits[e]	na	na	–	–	–	–	–	–	–	–
Tobacco[f]	34	19	43	23	38	22	20	14	13	9
Vegetables	1	9	–	–	–	–	–	–	–	–
Extensive cropping										
Wheat										
Human use	2	5	2	6	–	–	–	–	–	–
Stockfeed	..	..	3	1	–	–	–	–	–	–
Industrial	-2	-1	1	..	–	–	–	–	–	–
Extensive irrigation and high rainfall crops										
Sugar[g]	57	72	38	62	23	50	54	69	31	39
Cotton[h]	20	9	27	9	–	–	–	–	–	–
Rice[i]	49	14	20	6	18	5	18	6	23	7

Table S2 (continued)

Activity/commodity description	*1987–88*		*1988–89*		*1989–90*		*1990–91*		*1991–92*	
	Price distortion	*Producer transfer*	*Price distortion*	*Producer transfer*	*Price distortion*	*Producer transfer*	*Price distortion*	*Producer transfer*	*Price distortion*	*Producer transfer*
	(%)	*($m)*	*(%)*	*($m)*	*(%)*	*($m)*	*(%)*	*($m)*	*(%)*	*($m)*
Intensive livestock										
Eggs[j]	25	23	na	na	8	21	16	38	8	16
Manufacturing milk										
Cheese[k]	33	79	24	67	13	57	15	62	15	62
Butter[k]	67	28	40	18	17	23	23	23	21	22
Skim milk powder[l]	38	25	19	19	19	19	24	16	22	15
Whole milk powder	25	8	17	6	16	7	21	6	22	5
Casein	33	1	19	1	19	1	29	1	26	..
Fresh milk[m]	48	192	24	121	36	176	38	198	53	253

na not available.

– nil.

.. Producer transfer less than $0.5 million or price distortion between -0.5 per cent and 0.5 per cent.

a The price distortion is the proportional difference between the domestic price of a commodity and the price that would prevail without assistance. For export-competing commodities, it is the proportional difference between the domestic and comparable export prices. For import-competing commodities, it is the proportional difference between the domestic and import (landed duty-free) prices. In the case of tariff assistance, the price distortion is the tariff rate applying to imports as a percentage of the landed duty-free price.

b Producer transfers represent the income transfer to farmers from domestic consumers/users due to domestic prices being maintained above export/import parity. The transfers are derived for export industries either by multiplying the difference between the domestic and comparable export price by domestic sales or by multiplying the difference between the average prices received by farmers and comparable export prices by production. With the exception of sugar and deciduous canning fruits, it is assumed that all transfers accrue to the farming activity.

c Includes price raising effects of tariffs used in conjunction with the domestic marketing arrangements. The price distortion for sultanas is based on the difference between the average domestic and comparable export returns to packers.

d Assistance estimates since 1988–89 are based on revised methodology. It is assumed that the developing country tariff on frozen orange juice establishes a floor for all citrus production.

e The price distortion and producer transfer have not been calculated for 1987–88. Domestic marketing arrangements ceased with the termination of the Australian Canned Fruits Corporation on 31 December 1988.

f Transfers derived by applying the price differential between Australian-grown green leaf and the notional import price of non-USA green leaf to the domestic sales of Australian-grown leaf.

g Producer transfers were estimated in accordance with the industry formula used for dividing raw sugar returns between millers and growers. For the years 1986–87 through 1988–89 the price distortion for sugar was calculated by comparing average unit returns from domestic and export sales. The import embargo on sugar was replaced by a specific tariff rate on sugar imports from 1 July 1989. Since 1989–90 the price distortion was calculated by comparing the average domestic unit returns with a constructed export parity price.

h The domestic marketing arrangements ceased in June 1989.

i Estimated by comparing domestic and export prices for medium- and long-grain rice. As separate domestic and export prices for short- and long-grain rice were not available for 1987–88, prices were estimated from the average price supplied by the NSW Ricegrowers' Co-operative Ltd. The price distortion for rice grown in Queensland is based on the difference between the average domestic and comparable export prices for rice grown in New South Wales. The estimates for 1988–89 have been revised on the basis of more appropriate data provided by the Ricegrowers' Co-operative. The estimates since 1989–90 are based on data comparable to that used for the revised 1988–89 estimate. The 1991–92 estimates exclude producer transfers associated with Queensland production. Queensland production accounts for approximately 3 per cent of Australian production.

j Estimates for 1987–88 relied on a comparison of wholesale prices and New South Wales average export prices. Following the deregulation of the New South Wales egg market the necessary data were no longer available and estimates were not reported for 1988–89. Since deregulation in New South Wales, minimal quantities of eggs are exported. Estimates since 1989–90 are based on the difference between the weighted average deregulated farm-gate price and the average price received by farmers in the states maintaining regulation. In 1991–92, New South Wales was the only deregulated state.

k The methodology for estimating producer transfers has been revised to exclude the levies charged on domestic sales of butter and cheese used to fund the supplementary support payments. The domestic price distortion includes the added costs of the levies to consumers and users of butter and cheese. This arrangement ended on 30 June 1989.

l From 1989–90 includes buttermilk.

m In 1987–88 and 1988–89 the producer transfers were estimated for each state by multiplying the difference between the state fresh milk price and a notional deregulated price, by fresh milk sales in the state. For New South Wales, Queensland and South Australia, the deregulated price assumed to be the Victorian manufacturing milk price plus freight from Victoria. For Western Australia and Tasmania, the deregulated price was assumed to be the local manufacturing milk price, plus winter incentive payments. Estimates since 1989–90 are based on the difference between the state fresh milk price and the local manufacturing milk price plus an allowance of 20 per cent of the average Australian manufacturing milk price (to represent the cost of assurance of out-of-season supply).

Source: Commission estimates

Table S3
Average nominal and effective rates of assistance, by activity, and standard deviations for the agricultural sector, 1987–88 to 1991–92 (per cent)

	Nominal rate of assistance on outputs[a]						*Effective rate of assistance*[b]					
	Previous series				*Current series*		*Previous series*				*Current series*	
Activity/commodity description	*1987 –88*	*1988 –89*	*1989 –90*	*1990 –91*	*1990 –91*	*1991 -92*	*1987 –88*	*1988 –89*	*1989 –90*	*1990 –91*	*1990 –91*	*1991 –92*
Horticulture												
Apples and pears	1	..	2	1	1	1	3	..	2	1	-4	-4
Dried vine fruits	25	27	19	26	26	31	56	59	39	57	61	80
Wine grapes	18	21	16	15	15	14	39	47	34	34	31	29
Citrus[c]	10	12	6	5	5	3	20	22	10	9	9	6
Deciduous canning fruits[d]	1	1	1	..	..	..	9	8	8	4	3	-2
Bananas	1	..	..	..	..	..	2	1	1	1	..	..
Tobacco	37	56	46	22	22	16	68	110	91	36	61	40
Vegetables	–	–	..	..	..	..	-2	-2	-1	-1	..	..
Average	**5**	**6**	**4**	**4**	**4**	**3**	**10**	**11**	**8**	**7**	**7**	**7**
Extensive cropping												
Wheat	1	..	1	4	4	1	3	..	3	11	11	4
Barley	..	..	..	..	..	..	2	..	..	1	1	2
Oats	..	..	..	..	..	..	2	-1	..	2	2	2
Maize	–	..	..	..	..	–	..	-1	1	1	1	2
Sorghum	..	..	..	..	..	..	1	-1	1	2	2	2
Oilseeds	..	..	..	..	..	..	3	3	9	3	2	2
Average	**1**	**..**	**1**	**3**	**3**	**1**	**3**	**..**	**3**	**7**	**7**	**3**

Extensive irrigation and high-rainfall crops												
Sugar[e]	13	9	6	10	10	7	32	21	16	27	27	21
Cotton[f]	2	2	–	–	–	–	6	6	6	..	-5	-3
Rice[g]	17	5	4	6	6	4	50	10	8	14	15	11
Average	**9**	**6**	**3**	**5**	**5**	**3**	**19**	**12**	**10**	**8**	**10**	**8**
Extensive grazing												
Beef	1	2	1	1	1	..	8	10	5	3	4	4
Wool	1	..	1	10	10	6	3	2	1	22	26	17
Sheepmeat	1	2	3	4	4	1	3	5	6	9	10	5
Average	**1**	**1**	**1**	**6**	**6**	**2**	**5**	**5**	**3**	**12**	**14**	**9**
Intensive livestock												
Pigs	..	..	..	..	..	..	4	-3	3	2	2	4
Poultry	..	..	..	..	..	..	6	3	9	1	1	6
Eggs[h]	10	na	8	18	18	8	22	na	22	34	58	23
Milk production	49	22	24	28	28	28	171	54	59	71	55	73
Manufacturing milk	45	21	17	20	20	16	149	50	38	47	44	33
Fresh milk[i]	54	24	37	41	41	53	>200	60	105	123	129	>200
Average	**19**	**11**	**11**	**14**	**14**	**14**	**59**	**28**	**32**	**36**	**45**	**47**
Total agriculture												
Average	**4**	**3**	**3**	**6**	**6**	**4**	**11**	**8**	**8**	**14**	**16**	**12**
Standard deviation[j]	**(12)**	**(7)**	**(7)**	**(9)**	**(9)**	**(10)**	**(30)**	**(14)**	**(16)**	**(20)**	**(22)**	**(28)**

na not available.
– nil
.. Between -0.5 per cent and 0.5 per cent.
a Average nominal rates on outputs are weighted by the unassisted value of output of each activity.
b Average effective rates are weighted by the unassisted value added of each activity.

Table S3 (continued)

c Assistance estimates since 1988-89 are based on revised methodology. It is assumed that the developing country tariff on frozen orange juice establishes a floor for all citrus production.

d The required price data for estimating the producer transfer were not available for 1987–88 following the end of domestic marketing arrangements with the termination of the Australian Canned Fruits Corporation on 31 December 1988. Hence, only export incentives were included in the 1987–88 estimate of the nominal rate of assistance.

e The embargo on sugar imports ceased in June 1989. The estimates since 1989–90 are based on a revised methodology. The price distortion was calculated by comparing the average domestic unit returns with a constructed export parity price.

f The domestic marketing arrangements for cotton ceased in June 1989.

g Estimates have been derived by comparing domestic and export prices for medium- and long-grain rice. As separate domestic and export prices for short- and long-grain rice were not available for 1987–88, it was necessary to estimate these prices from the average prices supplied by the NSW Ricegrowers' Co-operative Limited. The price distortion for rice grown in Queensland is based on the difference between average domestic and comparable export prices for rice grown in New South Wales. Estimates since 1988–89 have been based on more appropriate data provided by the Ricegrowers' Co-operative. The 1991–92 estimates exclude assistance associated with Queensland production as the required data were unavailable.

h Estimates for 1987–88 relied on a comparison of wholesale prices and NSW average export prices. Following the deregulation of the NSW egg market the necessary data were no longer available and estimates were not reported for 1988–89. Since deregulation in NSW, minimal quantities of eggs are exported. Estimates since 1989–90 are based on the difference between the weighted average deregulated farm-gate price and the average price received by farmers in the states maintaining regulation. In 1991–92 NSW was the only deregulated state.

i In 1987–88 and 1988–89 the producer transfers were estimated for each state by multiplying the difference between the state fresh milk price and a notional deregulated price, by fresh milk sales in the state. For New South Wales, Queensland and South Australia, the deregulated price was assumed to be the Victorian manufacturing milk price plus freight from Victoria to the respective states. For Western Australia and Tasmania, the deregulated price was assumed to be the local manufacturing milk price, plus winter incentive payments. Estimates since 1989–90 are based on a revised methodology. The producer transfer was estimated by multiplying the difference between the fresh milk price and the local manufacturing milk price plus an allowance of 20 per cent of the average Australian manufacturing milk price to represent the cost of assurance of out-of-season supply.

j The standard deviation in percentage points measures how far from the average items in a frequency distribution are located, thereby measuring the extent of variation or dispersion in the distribution. The larger the variability amongst individual activities' nominal and effective rates, the larger the standard deviation.

Source: Commission estimates

Table S4
Assistance to manufacturing by form[a], various years 1989–90 to 2000–01 ($ million)

	1989–90	*1992–93*	*1996–97*	*2000–01*
Assistance to outputs				
Tariffs[b]	13 671	12 725	6 629	5 562
Quantitative import restrictions	505	46	–	–
Bounties[c]	208	124	50	47
Export incentives[c]	241	273	285	285
Assistance to materials				
Tariffs[b]	5 064	4 918	2 624	2 274
Quantitative import restrictions	94	49	–	–
Excise taxes	97	100	100	100
Assistance to value-adding factors[d]	..	58	8	8

– nil.
.. less than $0.5 million.
a Estimates for 1989–90 are in current prices. Estimates for 1992–93, 1996–97 and 2000–01 are in 1991–92 prices. The figures for assistance to outputs and materials are, respectively, the sum of the gross subsidy equivalents and the taxes on materials for individual industries, classified according to form of assistance. The summation of these amounts across industries will exceed the actual total for the sector due to some of the outputs of industries being used as intermediate inputs by other industries within the sector.
b Includes relatively minor amounts of assistance from domestic pricing arrangements for certain agricultural commodities. Figures are net of the savings from concessional entry of imported materials under certain policy by-laws, commercial tariff concession orders, duty drawback and by-law for exports.
c Except for the base year 1989–90, the estimates presented in this table do not represent the actual bounty and export incentive payments in each year. The estimates measure the assistance afforded by the current rates of bounty and export incentives in each year using fixed 1989–90 production patterns.
d The Commission's new series of estimates includes, for the first time, some assistance to value-adding factors; namely, certain capital grants and concessional loans for TCF industries.
Source: Commission estimates

Table S5
Average nominal rates of assistance on outputs[a] for manufacturing industries, 1989–90 to 1996–97 and 2000–01 (per cent)

Industry[b]		*1983–84[c] series*		*1989–90 series*								
ASIC code	*Description*	*1989 –90*	*1990 –91*	*1989 –90*	*1990 –91*	*1991 –92*	*1992[d] –93*	*1993[d] –94*	*1994[d] –95*	*1995[d] –96*	*1996[d] –97*	*2000[d] –01*
2115	Meat (except smallgoods or poultry)	..	..	..	..	..	..	..	..	..	..	..
2116	Poultry	1	1	1	1	1	1	1	1	..	..	..
2117	Bacon, ham and smallgoods nec	4	4	3	3	3	3	3	3	2	2	2
211	**Meat products**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	..	..	..
2121	Liquid milk and cream[e]	11	11	10	11	11	11	10	10	8	7	5
2122	Butter[e]	17	17	18	23	23	23	21	20	18	16	10
2123	Cheese[e]	9	9	13	14	14	14	13	12	11	10	6
2124	Ice cream and frozen confections[e]	4	4	4	5	5	5	5	5	4	4	3
2125	Milk products nec[e]	11	11	10	12	12	12	11	11	10	9	6
212	**Milk products[e]**	**11**	**11**	**11**	**13**	**13**	**13**	**12**	**11**	**10**	**9**	**6**
2131	Fruit products[e]	10	10	13	12	11	10	9	8	7	5	5
2132	Vegetable products[e]	7	7	7	7	8	7	7	6	5	4	4
213	**Fruit and vegetable products[e]**	**8**	**8**	**10**	**9**	**9**	**9**	**8**	**7**	**6**	**4**	**4**
214	**Margarine and oils and fats nec**	**6**	**6**	**6**	**6**	**6**	**6**	**5**	**5**	**4**	**3**	**3**
2151	Flour mill products[e]	..	..	..	..	..	..	..	..	..	..	..
2152	Starch, gluten and starch sugars[e]	3	3	3	3	2	2	2	2	2	2	2
2153	Cereal foods and baking mixes[e]	8	7	9	10	9	9	9	8	8	7	7
215	**Flour mill and cereal food products[e]**	**4**	**4**	**5**	**6**	**5**	**5**	**5**	**5**	**5**	**4**	**4**

2161	Bread[e]	..	..	1	1	..	..	..	..	..	..	..
2162	Cakes and pastries[e]	..	..	..	..	..	..	..	..	..	..	..
2163	Biscuits[e]	9	7	9	7	5	5	5	5	4	4	4
216	**Bread, cakes and biscuits[e]**	**2**	**2**	**2**	**2**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
2171	Raw sugar)[e,f,g]	11	10	5	10	7	8	6	4	4	5	5
2176	Food products nec)											
2173	Confectionery and cocoa products[e]	16	15	16	15	14	13	11	9	7	5	5
2174	Processed seafoods	1	1	1	1	1	1	1	1	1	1	1
2175	Prepared animal and bird foods[e]	..	..	..	..	..	..	..	..	..	..	..
217	**Other food products[e]**	**8**	**8**	**5**	**8**	**6**	**6**	**5**	**4**	**3**	**3**	**3**
2185	Soft drinks, cordials and syrups[e]	10	10	10	9	8	8	7	6	6	4	4
2186	Beer[e]	2	2	..	..	..	..	..	..	..	..	..
2187	Malt)[e,f]	1	1	1	1	1	1	1	1	1	1	1
2189	Alcoholic beverages nec)	9	8									
2188	Wine and brandy[e]	16	13	16	15	14	14	11	10	8	6	6
218	**Beverages and malt[e]**	**7**	**7**	**6**	**5**	**5**	**5**	**4**	**4**	**3**	**2**	**2**
219	**Tobacco products[e]**	**7**	**7**	**9**	**9**	**9**	**9**	**8**	**7**	**6**	**5**	**5**
21	**FOOD, BEVERAGES & TOBACCO[e]**	**5**	**5**	**5**	**5**	**5**	**5**	**4**	**4**	**3**	**3**	**3**
2341	Cotton ginning	-	-	..	..	..	..	..	..	..	..	..
2342	Wool scouring and top making	-	-	..	..	..	..	..	..	..	..	..
2343	Man-made fibres and yarns	27	25	24	5	5	5	3	2	5	4	4
2344	Man-made fibre broadwoven fabrics	60	54	57	51	39	33	28	25	22	20	13
2345	Cotton yarns & broadwoven fabrics	39	38	36	33	29	23	18	16	16	14	10
2346	Worsted yarns & broadwoven fabrics	15	14	14	13	12	11	9	7	6	6	4
2347	Woollen yarns & broadwoven fabrics	12	11	13	12	12	12	10	8	7	6	5
2348	Narrow woven and elastic textiles	23	23	23	23	22	21	19	17	16	14	9
2349	Textile finishing	50	45	43	44	38	31	28	26	23	21	14

Table S5 (continued)

Industry[b]		*1983–84*[c] *series*		*1989–90 series*								
ASIC code	*Description*	*1989 –90*	*1990 –91*	*1989 –90*	*1990 –91*	*1991 –92*	*1992*[d] *–93*	*1993*[d] *–94*	*1994*[d] *–95*	*1995*[d] *–96*	*1996*[d] *–97*	*2000*[d] *–01*
234	**Textile fibres, yarns and woven fabrics**	**21**	**19**	**16**	**15**	**13**	**11**	**9**	**8**	**7**	**7**	**5**
2351	Household textiles	43	43	42	42	37	30	28	25	23	21	14
2352	Textile floor coverings	33	31	34	33	32	29	27	25	23	21	14
2353	Felt and felt products	15	15	13	13	13	13	10	9	7	5	5
2354	Canvas and associated products, nec	21	21	22	22	21	20	18	16	15	13	9
2355	Rope, cordage and twine	19	20	21	21	21	19	18	16	14	13	9
2356	Textile products nec	12	11	13	11	10	10	8	7	6	4	4
235	**Other textile products**	**26**	**25**	**26**	**25**	**24**	**21**	**19**	**18**	**16**	**14**	**10**
23	**TEXTILES**	**23**	**21**	**19**	**18**	**16**	**14**	**12**	**11**	**10**	**9**	**6**
2441	Hosiery	64	58	51	50	47	40	36	33	31	28	19
2442	Cardigans and pullovers	69	67	67	65	53	49	42	38	36	33	22
2443	Knitted goods nec	49	48	55	54	46	38	35	32	30	28	19
244	**Knitting mills**	**58**	**55**	**56**	**55**	**48**	**41**	**37**	**34**	**31**	**29**	**20**
2451	Mens trousers & shorts; work clothing	74	78	74	76	60	47	44	40	37	35	24
2452	Mens suits & coats; waterproof clothing	62	53	68	57	48	41	39	35	33	30	21
2453	Womens outwear nec	67	68	72	72	58	49	43	39	36	34	23
2454	Foundation garments	69	70	78	80	69	51	43	39	36	33	23
2455	Underwear and infants clothing nec	86	83	82	79	62	47	40	37	34	32	21
2456	Headwear and clothing nec	31	31	41	41	35	31	28	26	24	22	15
245	**Clothing**	**68**	**68**	**67**	**66**	**54**	**44**	**39**	**36**	**33**	**30**	**21**
246	**Footwear**	**68**	**69**	**58**	**61**	**49**	**35**	**31**	**28**	**25**	**23**	**13**
24	**CLOTHING AND FOOTWEAR**	**65**	**65**	**63**	**63**	**52**	**42**	**37**	**34**	**31**	**29**	**19**

2531	Log sawmilling	3	3	3	3	3	3	3	3	3	3	3
2532	Resawn and dressed timber	8	7	9	8	7	7	6	6	5	4	4
2533	Veneers & manufactured boards of wood	13	13	14	14	13	12	10	8	7	4	4
2534	Wooden doors	12	11	12	11	10	9	8	7	6	5	5
2535	Wooden structural fittings & joinery nec	11	10	9	8	8	7	6	6	5	4	4
2536	Wooden containers	5	5	4	4	3	3	3	3	2	2	2
2537	Hardwood woodchips	-	-	-	-	-	-	-	-	-	-	-
2538	Wood products nec	12	11	12	11	10	9	9	8	7	5	5
253	**Wood and wood products**	**8**	**8**	**8**	**7**	**7**	**6**	**6**	**5**	**4**	**3**	**3**
2541	Furniture (except sheet metal)	20	18	21	18	16	13	11	9	7	4	4
2542	Mattresses (except rubber)	6	6	6	6	6	5	5	4	4	3	2
254	**Furniture and mattresses**	**18**	**16**	**19**	**17**	**14**	**12**	**10**	**8**	**7**	**4**	**4**
25	**WOOD, WOOD PRODUCTS AND FURNITURE**	**11**	**10**	**12**	**11**	**10**	**8**	**7**	**6**	**5**	**4**	**4**
2631	Pulp, paper and paperboard	7	6	6	6	6	6	5	4	3	2	2
2632	Paper bags (including textile bags)	16	13	16	13	13	13	11	9	7	4	4
2633	Solid fibreboard containers	15	13	16	13	13	13	11	9	7	4	4
2634	Corrugated fibreboard containers	15	12	15	12	12	12	10	8	7	4	4
2635	Paper products nec	14	12	14	12	12	12	9	8	6	4	4
263	**Paper and paper products**	**11**	**10**	**10**	**9**	**9**	**9**	**7**	**6**	**5**	**3**	**3**
2641	Publishing	..	..	1	1	1	1	1	1	..	..	..
2642	Printing and publishing	..	..	..	..	..	..	..	..	..	..	..
2643	Paper stationery	15	13	16	13	13	13	10	9	7	4	4
2644	Printing and bookbinding	9	7	10	9	8	8	6	5	4	3	3
2645	Printing trade services nec	..	..	2	1	1	1	1	1	1	..	..
264	**Printing and allied industries**	**5**	**4**	**6**	**5**	**5**	**5**	**4**	**3**	**3**	**2**	**2**
26	**PAPER, PAPER PRODUCTS, PRINTING AND PUBLISHING**	**7**	**6**	**7**	**6**	**6**	**6**	**5**	**4**	**3**	**2**	**2**

Table S5 (continued)

Industry[b]		*1983–84*[c] *series*		*1989–90 series*								
ASIC code	*Description*	*1989 –90*	*1990 –91*	*1989 –90*	*1990 –91*	*1991 –92*	*1992*[d] *–93*	*1993*[d] *–94*	*1994*[d] *–95*	*1995*[d] *–96*	*1996*[d] *–97*	*2000*[d] *–01*
2751	Chemical fertilisers	1	1	-	-	-	-	-	-	-	-	-
2752	Industrial gases[g]			..	..	..	..	..	..	-	-	-
2753	Synthetic resins and rubber	12	11	13	12	12	12	10	8	7	4	4
2754	Organic industrial chemicals nec[g]	3	3	5	4	4	4	3	3	3	2	2
2755	Inorganic industrial chemicals nec	8	7	4	4	3	3	3	2	2	2	2
275	**Basic chemicals**	**7**	**6**	**6**	**6**	**5**	**5**	**4**	**4**	**3**	**2**	**2**
2761	Ammunition, explosives and fireworks	10	10	9	9	9	9	8	7	6	4	4
2762	Paints	13	13	13	13	13	13	10	9	7	5	5
2763	Pharmaceutical and veterinary products	2	2	1	1	1	1	1	1	1	1	1
2764	Pesticides	15	14	15	14	14	14	11	9	7	5	5
2765	Soap and other detergents	13	13	13	13	13	13	10	9	7	5	5
2766	Cosmetics and toilet preparations	15	14	15	14	14	14	11	9	7	5	5
2767	Inks	15	13	15	14	14	14	11	9	8	5	5
2768	Chemical products nec	13	12	12	11	11	11	9	8	6	4	4
276	**Other chemical products**	**10**	**9**	**9**	**9**	**9**	**9**	**7**	**6**	**5**	**3**	**3**
277	**Petroleum refining**	-	-	-	-	-	-	-	-	-	-	-
278	**Petroleum and coal products nec**	**9**	**8**	**8**	**7**	**6**	**5**	**5**	**4**	**4**	**3**	**3**
27	**CHEMICAL, PETROLEUM AND COAL PRODUCTS**	**3**	**3**	**2**	**2**	**2**	**2**	**2**	**1**	**1**	**1**	**1**
285	**Glass and glass products**	**4**	**4**	**5**	**4**	**4**	**4**	**4**	**3**	**3**	**3**	**3**
2861	Clay bricks	..	..	-	-	-	-	-	-	-	-	-
2862	Refractories	6	6	2	2	2	1	1	1	1	1	1
2863	Ceramic tiles and pipes	8	8	7	7	7	6	6	5	5	3	3
2864	Ceramic goods nec	17	15	17	16	14	13	11	9	8	5	5

286	**Clay products & refractories**	**4**	**3**	**3**	**3**	**3**	**2**	**2**	**2**	**2**	**1**	**1**
2871	Cement	..	..	-	-	-	-	-	-	-	-	-
2872	Ready-mixed concrete[g]			-	-	-	-	-	-	-	-	-
2873	Cement,concrete pipes & culverts[g]	..	..	3	3	3	3	2	2	2	1	1
2874	Concrete products nec	2	2	2	2	2	2	2	2	1	1	1
287	**Cement & concrete products**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**..**	**..**
2881	Plaster products & expanded minerals[g]	10	9	11	10	9	8	7	7	6	4	4
2882	Stone products[g]			11	10	10	9	8	7	6	5	5
2883	Glass wool and mineral wool products	9	9	15	13	11	11	9	8	6	4	4
2884	Non-metallic mineral products nec	5	5	3	3	2	2	2	2	2	2	2
288	**Other non-metallic mineral products**	**8**	**7**	**10**	**9**	**8**	**7**	**7**	**6**	**5**	**4**	**4**
28	**NON-METALLIC MINERAL PRODUCTS**	**3**	**2**	**3**	**3**	**3**	**2**	**2**	**2**	**2**	**1**	**1**
2941	Iron and steel basic products	6	6	7	7	7	5	5	5	4	4	4
2942	Iron casting	13	12	11	10	10	9	8	7	6	4	4
2943	Steel casting	16	15	15	15	14	13	10	9	7	4	4
2944	Iron and steel forging	16	15	11	11	10	9	8	7	6	4	4
2945	Steel pipes and tubes	11	11	11	10	10	9	8	7	6	4	4
294	**Basic iron and steel**	**7**	**7**	**8**	**8**	**7**	**6**	**5**	**5**	**5**	**4**	**4**
2951	Copper smelting, refining[g]			1	1	1	1	1	1	1	..	..
2952	Silver, lead, zinc smelting, refining	-	-	-	-	-	-	-	-	-	-	-
2953	Alumina	..	..	-	-	-	-	-	-	-	-	-
2954	Aluminium smelting	-	-	-	-	-	-	-	-	-	-	-
2955	Nickel smelting, refining[g]	1	1	..	..	..	..	..	..	..	..	..
2956	Non-ferrous metals nec, smelting, refining)	..	..									
2957	Secondary recovery and alloying of) non-ferrous metals nec)[f]	..	..	..	..	..	..	..	-	-	-	-
295	**Basic non-ferrous metals**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**

Table S5 (continued)

Industry[b]		*1983–84*[c] *series*		*1989–90 series*								
ASIC code	*Description*	*1989 –90*	*1990 –91*	*1989 –90*	*1990 –91*	*1991 –92*	*1992*[d] *–93*	*1993*[d] *–94*	*1994*[d] *–95*	*1995*[d] *–96*	*1996*[d] *–97*	*2000*[d] *-01*
2961	Aluminium rolling, drawing, extruding	10	10	12	11	10	9	8	7	6	4	4
2962	Non-ferrous metals nec, rolling, drawing, extruding	7	7	8	7	7	7	7	6	5	4	4
2963	Non-ferrous metal casting	7	6	14	13	13	12	9	8	6	4	4
296	**Non-ferrous metal basic products**	**9**	**9**	**10**	**10**	**9**	**9**	**8**	**7**	**6**	**4**	**4**
29	**BASIC METAL PRODUCTS**	**5**	**5**	**4**	**4**	**4**	**3**	**3**	**3**	**3**	**2**	**2**
3141	Fabricated structural steel	9	8	7	7	6	6	5	5	4	3	3
3142	Architectural aluminium products	16	15	14	14	13	12	10	8	7	4	4
3143	Architectural metal products nec	13	12	13	12	11	10	9	8	6	4	4
314	**Structural metal products**	**11**	**10**	**10**	**9**	**9**	**8**	**7**	**6**	**5**	**4**	**4**
3151	Metal containers	12	11	14	13	13	12	10	8	7	4	4
3152	Sheet metal furniture	18	15	18	16	14	12	10	8	7	4	4
3153	Sheet metal products nec	15	14	14	14	13	12	9	8	6	4	4
315	**Sheet metal products**	**14**	**13**	**15**	**14**	**13**	**12**	**10**	**8**	**7**	**4**	**4**
3161	Cutlery and hand tools nec	16	14	16	15	14	13	11	9	7	5	5
3162	Springs and wire products	12	11	12	12	11	10	8	7	6	4	4
3163	Nuts, bolts, screws and rivets	18	17	18	17	15	13	11	9	7	5	5
3164	Metal coating and finishing	14	13	15	14	14	13	10	9	7	4	4
3165	Non-ferrous steam, gas and water fittings	17	16	16	15	14	13	10	9	7	4	4
3166	Boiler and plate work	16	15	16	15	14	13	11	9	8	5	5
3167	Metal blinds and awnings	18	17	17	16	15	14	11	10	8	5	5
3168	Fabricated metal products nec	16	15	14	13	12	11	9	8	7	4	4
316	**Other fabricated metal products**	**15**	**14**	**15**	**14**	**13**	**12**	**10**	**8**	**7**	**4**	**4**

31	**FABRICATED METAL PRODUCTS**	**13**	**12**	**13**	**12**	**11**	**10**	**9**	**7**	**6**	**4**	**4**
3231	Motor vehicles	30	28	29	27	25	23	21	19	17	15	10
3232	Motor vehicle bodies, trailers, caravans	19	17	18	17	15	13	10	9	7	5	4
3233	Motor vehicle instruments & electrical equipment nec	26	24	28	26	25	23	21	20	19	18	13
3234	Motor vehicle parts nec	24	22	27	25	23	22	20	19	18	17	13
323	**Motor vehicles and parts**	**27**	**25**	**28**	**26**	**24**	**22**	**20**	**19**	**17**	**15**	**10**
3241	Ships	15	14	14	13	11	10	8	7	6	4	4
3242	Boats	15	14	18	17	15	14	12	10	9	6	6
3243	Railway rolling stock and locomotives	16	15	16	15	14	13	11	9	7	5	5
3244	Aircraft	1	1	1	1	1	1	1	1	1	..	..
3245	Transport equipment nec	18	16	15	11	10	9	8	7	6	4	4
324	**Other transport equipment**	**12**	**11**	**10**	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**3**
32	**TRANSPORT EQUIPMENT**	**22**	**21**	**24**	**22**	**20**	**19**	**17**	**15**	**14**	**12**	**9**
3341	Photographic and optical goods	8	10	13	14	13	10	7	7	6	4	4
3342	Photographic film processing	-	-	1	1	1	1	1	1	1	..	..
3343	Measuring, professional & scientific equipment nec	6	5	10	9	8	9	8	7	6	5	5
334	**Photographic, professional and scientific equipment**	**4**	**4**	**8**	**8**	**7**	**7**	**5**	**5**	**4**	**3**	**3**
3351	Radio and TV receivers; audio equipment	12	11	13	12	9	8	7	6	6	4	4
3352	Electronic equipment nec	16	15	17	15	13	12	10	8	7	5	5
3353	Refrigerators & household appliances	19	17	19	17	15	13	11	9	7	5	5
3354	Water heating systems	17	16	18	17	15	14	11	9	8	5	5
3355	Electric and telephone cable and wire	13	12	9	8	7	7	6	5	4	3	3
3356	Batteries	23	20	23	20	17	14	12	11	9	7	7
3357	Electrical machinery and equipment nec	14	13	15	14	13	12	10	8	7	5	5

Table S5 (continued)

Industry[b]		*1983–84*[c] *series*		*1989–90 series*								
ASIC code	*Description*	*1989 –90*	*1990 –91*	*1989 –90*	*1990 –91*	*1991 –92*	*1992*[d] *–93*	*1993*[d] *–94*	*1994*[d] *–95*	*1995*[d] *–96*	*1996*[d] *–97*	*2000*[d] *–01*
335	**Appliances and electrical equipment**	**16**	**14**	**16**	**15**	**13**	**12**	**10**	**8**	**7**	**5**	**5**
3361	Agricultural machinery	5	4	7	6	6	5	5	4	4	3	3
3362	Construction machinery	12	11	12	11	10	9	8	7	6	4	4
3363	Materials handling equipment	17	15	19	17	15	13	11	9	8	5	5
3364	Wood and metal working machinery	11	10	9	9	8	8	7	6	5	4	4
3365	Pumps and compressors	15	13	14	13	12	10	9	8	6	4	4
3366	Commercial space heating and cooling equipment	19	17	19	17	15	14	11	9	7	5	5
3367	Dies, saw blades and machine tool accessories	13	13	15	15	13	12	10	9	7	5	5
3368	Food processing machinery	13	12	12	11	10	9	8	7	6	5	5
3369	Industrial machinery and equipment nec	10	9	14	13	11	10	8	7	6	4	4
336	**Industrial machinery and equipment**	**11**	**10**	**14**	**13**	**11**	**10**	**8**	**7**	**6**	**4**	**4**
33	**OTHER MACHINERY AND EQUIPMENT**	**13**	**12**	**15**	**14**	**12**	**11**	**9**	**8**	**6**	**4**	**4**
3451	Leather tanning and fur dressing	6	6	8	8	8	7	6	5	4	3	3
3452	Leather and leather substitute goods nec	19	18	16	16	15	14	13	11	10	8	6
345	**Leather and leather products**	**9**	**9**	**9**	**9**	**9**	**8**	**7**	**6**	**5**	**3**	**3**
3461	Rubber tyres, tubes, belts, hose & sheets	17	15	16	15	13	12	10	10	9	7	7
3462	Rubber products nec	19	18	17	16	15	12	10	9	7	5	5
346	**Rubber products**	**18**	**16**	**16**	**15**	**14**	**12**	**10**	**9**	**8**	**6**	**6**
3471	Flexible packaging & abrasive papers	15	14	14	13	13	13	10	8	7	4	4
3472	Rigid plastic sheeting)[f,g]											

3473	Hard surface floor covering nec)	12	11	10	9	9	9	7	6	5	3	3
3474	Plastic products nec	15	14	15	14	14	13	11	9	7	5	5
347	**Plastic and related products**	**15**	**14**	**14**	**13**	**13**	**13**	**10**	**9**	**7**	**5**	**5**
3481	Ophthalmic articles	12	10	15	13	13	13	11	9	7	5	5
3482	Jewellery and silverware	18	17	11	10	9	9	8	7	6	5	5
3483	Brooms and brushes	18	16	18	17	15	13	11	9	7	5	5
3484	Signs and advertising displays	15	14	18	16	15	13	11	9	7	5	5
3485	Sporting equipment	18	16	19	18	16	15	13	11	9	7	7
3486	Writing and marking equipment	13	12	12	11	10	10	8	7	5	3	3
3487	Manufacturing nec	14	13	9	8	7	7	6	5	4	3	3
348	**Other manufacturing**	**16**	**14**	**15**	**14**	**12**	**11**	**10**	**8**	**7**	**5**	**5**
34	**MISC. MANUFACTURING**	**15**	**14**	**14**	**13**	**13**	**12**	**10**	**9**	**7**	**5**	**5**
21-34	**TOTAL MANUFACTURING[h]**	**9**	**9**	**9**	**8**	**8**	**7**	**6**	**5**	**5**	**4**	**3**
		(7)	**(7)**	**(7)**	**(7)**	**(7)**	**(5)**	**(5)**	**(5)**	**(4)**	**(3)**	**(3)**

– nil.
.. Between 0 per cent and 0.5 per cent.
a Assistance provided by tariffs and certain non-tariff measures. An industry's nominal rate of assistance on outputs is an average of the nominal rates on the products made by that industry, weighted by the unassisted value of output for each product.
b Industry subdivision, group, and class from the Australian Standard Industrial Classification (ASIC) 1983 Edition.
c For comparative purposes estimates for 1989–90 and 1990–91 have been presented for the previous (1983–84 base) series.
d Estimates for 1992–93 to 2000–01 reflect 1991–92 prices, as data for that year were the latest available at the time of compilation.
e Estimates for 1991–92 and 1992–93 and projections through to 2000–01 reflect Commission projections of assistance to agricultural commodities.
f Assistance estimates not calculated separately because 1989–90 production data are confidential.
g Assistance estimates not calculated separately because 1983–84 production data are confidential.
h The figures in brackets are the medians of the nominal rates of assistance for 4-digit ASIC industries using the weights specified for the averages to determine the 50th percentile.

Source: Commission estimates

Table S6
Average nominal rates of assistance on materials[a], manufacturing industries, 1989–90 to 1996–97 and 2000–01 (per cent)

Industry[b]		*1983–84[c] series*		*1989–90 series*								
ASIC code	*Description*	*1989 –90*	*1990 –91*	*1989 –90*	*1990 –91*	*1991 –92*	*1992[d] –93*	*1993[d] –94*	*1994[d] –95*	*1995[d] –96*	*1996[d] –97*	*2000[d] –01*
2115	Meat (except smallgoods or poultry)	..	..	..	..	..	..	..	..	..	..	..
2116	Poultry	..	..	..	..	..	..	..	..	..	..	..
2117	Bacon, ham and smallgoods nec	1	1	1	1	1	1	1	1	1	..	..
211	**Meat products**	..	..	..	..	..	..	..	..	..	..	..
2121	Liquid milk and cream[e]	16	16	16	19	18	18	16	16	14	12	8
2122	Butter[e]	19	19	20	23	23	23	21	21	19	17	11
2123	Cheese[e]	14	14	17	18	18	18	16	15	14	12	8
2124	Ice cream and frozen confections[e]	22	21	12	15	14	14	12	11	9	9	7
2125	Milk products nec[e]	18	18	10	14	12	12	11	9	8	8	6
212	**Milk products[e]**	**17**	**17**	**16**	**19**	**18**	**18**	**16**	**16**	**14**	**13**	**8**
2131	Fruit products[e]	11	10	10	9	8	8	7	6	5	3	3
2132	Vegetable products[e]	6	6	4	4	4	4	3	3	2	2	1
213	**Fruit and vegetable products[e]**	**8**	**8**	**7**	**7**	**6**	**6**	**5**	**4**	**3**	**2**	**2**
214	**Margarine and oils and fats nec**	**3**	**3**	**2**	**2**	**2**	**2**	**2**	**1**	**1**	**1**	**1**
2151	Flour mill products[e]	..	..	1	1	1	1	..	..	..	..	..
2152	Starch, gluten and starch sugars	1	..	1	1	1	1	1	1	1	1	1
2153	Cereal foods and baking mixes[e]	11	11	11	11	11	11	10	10	9	8	8
215	**Flour mill and cereal food products[e]**	**5**	**5**	**6**	**5**	**5**	**5**	**5**	**5**	**4**	**4**	**4**
2161	Bread[e]	3	3	2	1	1	1	1	1	1	1	1
2162	Cakes and pastries[e]	7	7	5	6	5	5	4	3	3	2	2
2163	Biscuits[e]	9	9	8	8	7	7	6	5	4	3	3
216	**Bread, cakes and biscuits[e]**	**5**	**5**	**4**	**4**	**4**	**4**	**3**	**2**	**2**	**2**	**1**

2171	Raw sugar)[e,f,g]	15	15	8	16	11	12	10	7	6	7	7
2176	Food products nec)											
2173	Confectionery and cocoa products[e]	10	9	10	11	10	9	8	7	6	5	4
2174	Processed seafoods	1	1	1	1	1	..	..	..	..	..	..
2175	Prepared animal and bird foods[e]	1	1	2	2	2	2	1	1	1	1	1
217	**Other food products[e]**	**8**	**8**	**6**	**10**	**8**	**8**	**6**	**5**	**4**	**4**	**4**
2185	Soft drinks, cordials and syrups[e]	11	11	9	10	8	7	6	5	4	4	4
2186	Beer[e]	5	4	5	5	5	4	4	3	3	2	2
2187	Malt)[e,f]	..	..	1	1	1	..	..	..	..	..	..
2189	Alcoholic beverages nec)	5	5									
2188	Wine and brandy[e]	11	9	10	9	8	8	6	5	4	3	3
218	**Beverages and malt[e]**	**8**	**7**	**7**	**7**	**6**	**6**	**5**	**4**	**3**	**3**	**3**
219	**Tobacco products[e]**	**17**	**18**	**17**	**13**	**12**	**11**	**9**	**8**	**6**	**4**	**4**
21	**FOOD, BEVERAGES & TOBACCO[e]**	**6**	**6**	**5**	**7**	**6**	**6**	**5**	**4**	**4**	**3**	**3**
2341	Cotton ginning	..	..	..	..	..	..	..	..	..	..	..
2342	Wool scouring and top making	-	-	..	..	..	..	..	..	..	..	..
2343	Man-made fibres and yarns	4	4	1	1	1	1	..	..	..	..	..
2344	Man-made fibre broadwoven fabrics	5	4	10	10	9	9	8	7	6	4	4
2345	Cotton yarns and broadwoven fabrics	7	7	6	6	6	6	5	4	3	2	2
2346	Worsted yarns and broadwoven fabrics	1	1	..	..	..	..	..	..	..	..	..
2347	Woollen yarns and broadwoven fabrics	1	..	5	5	5	5	4	3	3	2	2
2348	Narrow woven and elastic textiles	3	2	8	7	7	7	6	5	5	3	3
2349	Textile finishing	16	15	29	27	23	21	20	18	16	14	9
234	**Textile fibres, yarns & woven fabrics**	**3**	**3**	**5**	**4**	**4**	**4**	**3**	**3**	**3**	**2**	**2**
2351	Household textiles	25	21	37	33	26	24	21	20	18	16	10
2352	Textile floor coverings	11	11	8	8	8	8	6	5	4	3	3
2353	Felt and felt products	1	1	2	2	2	2	2	2	2	2	2

Table S6 (continued)

Industry[b]		*1983–84*[c] *series*		*1989–90 series*								
ASIC code	*Description*	*1989 –90*	*1990 –91*	*1989 –90*	*1990 –91*	*1991 –92*	*1992*[d] *–93*	*1993*[d] *–94*	*1994*[d] *–95*	*1995*[d] *–96*	*1996*[d] *–97*	*2000*[d] *–01*
2354	Canvas and associated products, nec	28	26	26	23	19	17	15	13	12	10	7
2355	Rope, cordage and twine	9	10	6	5	5	5	4	3	2	2	2
2356	Textile products nec	10	8	4	4	4	4	3	3	2	1	1
235	**Other textile products**	**14**	**13**	**12**	**11**	**10**	**9**	**8**	**7**	**6**	**5**	**4**
23	**TEXTILES**	**6**	**6**	**7**	**6**	**6**	**5**	**4**	**4**	**4**	**3**	**2**
2441	Hosiery	9	8	9	9	9	9	7	6	6	4	4
2442	Cardigans and pullovers	8	8	13	13	13	12	10	9	9	7	6
2443	Knitted goods nec	9	9	11	11	11	11	9	7	7	5	4
244	**Knitting mills**	**9**	**9**	**11**	**11**	**11**	**11**	**9**	**8**	**7**	**5**	**5**
2451	Mens trousers & shorts; work clothing	33	30	33	30	25	22	20	18	17	15	10
2452	Mens suits & coats; waterproof clothing	21	17	25	23	22	20	19	17	16	15	10
2453	Womens outwear nec	29	25	37	33	27	25	22	20	19	17	11
2454	Foundation garments	15	14	18	18	18	16	15	14	13	12	8
2455	Underwear and infants clothing nec	23	21	29	27	25	22	20	18	17	15	10
2456	Headwear and clothing nec	20	19	24	21	19	17	16	14	13	11	8
245	**Clothing**	**26**	**23**	**29**	**27**	**23**	**21**	**19**	**18**	**16**	**14**	**9**
246	**Footwear**	**17**	**17**	**18**	**19**	**17**	**11**	**9**	**8**	**7**	**5**	**5**
24	**CLOTHING AND FOOTWEAR**	**21**	**19**	**22**	**21**	**19**	**17**	**15**	**13**	**12**	**10**	**7**
2531	Log sawmilling	2	2	2	2	2	2	2	1	1	1	1
2532	Resawn and dressed timber	2	2	2	2	1	1	1	1	1	1	1
2533	Veneers and manufactured boards of wood	7	7	7	6	6	6	5	4	3	2	2
2534	Wooden doors	9	9	7	7	6	6	5	5	4	3	3
2535	Wooden structural fittings and joinery nec	7	7	10	9	9	8	7	6	5	3	3

2536	Wooden containers	3	3	6	5	5	5	4	4	3	3	3
2537	Hardwood woodchips	..	..	2	2	2	1	1	1	1	1	1
2538	Wood products nec	5	5	8	7	7	7	6	5	4	3	3
253	**Wood and wood products**	**5**	**5**	**6**	**6**	**5**	**5**	**4**	**4**	**3**	**2**	**2**
2541	Furniture (except sheet metal)	13	12	12	11	10	9	8	7	6	4	4
2542	Mattresses (except rubber)	14	13	13	12	11	10	8	7	6	4	4
254	**Furniture and mattresses**	**13**	**12**	**12**	**11**	**10**	**10**	**8**	**7**	**6**	**4**	**4**
25	**WOOD, WOOD PRODUCTS AND FURNITURE**	**8**	**7**	**8**	**8**	**7**	**7**	**6**	**5**	**4**	**3**	**3**
2631	Pulp, paper and paperboard	1	1	2	2	2	2	1	1	1	1	1
2632	Paper bags (including textile bags)	10	10	9	9	9	9	7	6	5	4	4
2633	Solid fibreboard containers	7	6	7	6	6	6	5	4	4	3	3
2634	Corrugated fibreboard containers	10	9	8	8	8	8	6	5	5	3	3
2635	Paper products nec	6	6	6	5	5	5	4	4	3	2	2
263	**Paper and paper products**	**5**	**5**	**5**	**4**	**4**	**4**	**4**	**3**	**3**	**2**	**2**
2641	Publishing	1	1	5	5	5	5	4	4	3	2	2
2642	Printing and publishing	1	1	..	..	..	..	..	..	..	..	..
2643	Paper stationery	8	8	8	7	7	7	6	5	4	3	3
2644	Printing and bookbinding	8	7	6	6	6	6	5	4	3	2	2
2645	Printing trade services nec	8	7	5	4	4	4	3	3	2	2	2
264	**Printing and allied industries**	**5**	**5**	**5**	**5**	**5**	**4**	**4**	**3**	**2**	**2**	**2**
26	**PAPER, PAPER PRODUCTS, PRINTING AND PUBLISHING**	**5**	**5**	**5**	**5**	**4**	**4**	**4**	**3**	**3**	**2**	**2**
2751	Chemical fertilisers	1	1	1	1	1	1	1	1	1	..	..
2752	Industrial gases[g]			1	1	..	..	..	..	..	..	..
2753	Synthetic resins and rubber	6	5	5	5	5	5	4	3	3	2	2
2754	Organic industrial chemicals nec[g]	2	2	5	5	4	4	4	3	3	2	2
2755	Inorganic industrial chemicals nec	2	2	2	1	1	1	1	1	1	1	1

Table S6 (continued)

Industry[b]		1983–84[c] series		1989–90 series								
ASIC code	*Description*	*1989–90*	*1990–91*	*1989–90*	*1990–91*	*1991–92*	*1992[d]–93*	*1993[d]–94*	*1994[d]–95*	*1995[d]–96*	*1996[d]–97*	*2000[d]–01*
275	**Basic chemicals**	**3**	**3**	**3**	**3**	**3**	**3**	**2**	**2**	**2**	**1**	**1**
2761	Ammunition, explosives and fireworks	5	5	8	8	8	7	6	5	4	3	3
2762	Paints	9	8	6	6	6	5	5	4	3	2	2
2763	Pharmaceutical & veterinary products	2	2	3	3	3	3	2	2	2	1	1
2764	Pesticides	5	4	11	10	10	10	8	7	5	3	3
2765	Soap and other detergents	8	7	9	9	9	9	7	6	5	3	3
2766	Cosmetics and toilet preparations	11	10	9	8	8	8	6	5	5	3	3
2767	Inks	11	10	9	8	8	8	7	6	5	3	3
2768	Chemical products nec	7	6	7	6	7	7	6	5	4	3	3
276	**Other chemical products**	**6**	**6**	**7**	**6**	**6**	**6**	**5**	**4**	**4**	**2**	**2**
277	**Petroleum refining**	**-**	**-**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
278	**Petroleum and coal products nec**	**2**	**2**	**1**	**1**	**1**	**1**	**..**	**..**	**..**	**..**	**..**
27	**CHEMICAL, PETROLEUM AND COAL PRODUCTS**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**..**	**..**
285	**Glass and glass products**	**6**	**5**	**5**	**4**	**4**	**4**	**3**	**3**	**3**	**2**	**2**
2861	Clay bricks	1	1	1	1	1	..	..	..	..	..	..
2862	Refractories	1	1	1	..	..	..	..	..	..	..	..
2863	Ceramic tiles and pipes	3	3	3	3	3	3	2	2	2	1	1
2864	Ceramic goods nec	7	6	5	5	4	4	4	3	3	2	2
286	**Clay products and refractories**	**2**	**2**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
2871	Cement	..	..	..	..	..	..	..	..	..	..	..
2872	Ready-mixed concrete[g]			1	1	1	1	1	1	1	1	1

2873	Cement, concrete pipes & culverts[g]	..	..	..	..	..	..	..	..	..	..	..
2874	Concrete products nec	3	3	1	1	1	1	1	1	1	1	1
287	**Cement and concrete products**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	..	..
2881	Plaster products & expanded minerals[g]	5	5	5	4	4	4	4	3	3	2	2
2882	Stone products[g]			4	4	3	3	3	3	2	2	2
2883	Glass wool and mineral wool products	5	4	7	7	6	5	5	4	4	3	2
2884	Non-metallic mineral products nec	4	4	3	3	3	2	2	2	2	1	1
288	**Other non-metallic mineral products**	**4**	**4**	**5**	**4**	**4**	**4**	**3**	**3**	**3**	**2**	**2**
28	**NON-METALLIC MINERAL PRODUCTS**	**2**	**2**	**2**	**2**	**2**	**2**	**1**	**1**	**1**	**1**	**1**
2941	Iron and steel basic products	6	5	3	3	2	2	2	2	2	2	2
2942	Iron casting	4	4	2	2	2	2	2	1	1	1	1
2943	Steel casting	3	3	3	3	3	3	2	2	2	1	1
2944	Iron and steel forging	6	6	3	3	3	3	2	2	2	2	2
2945	Steel pipes and tubes	9	8	6	6	6	4	4	4	4	4	4
294	**Basic iron and steel**	**6**	**5**	**3**	**3**	**3**	**2**	**2**	**2**	**2**	**2**	**2**
2951	Copper smelting, refining[g]			..	..	..	..	..	..	..	..	..
2952	Silver, lead, zinc smelting, refining	..	..	..	..	..	..	..	..	..	..	..
2953	Alumina	4	4	2	2	2	1	1	1	1	1	1
2954	Aluminium smelting	1	1	..	..	..	..	..	..	..	..	..
2955	Nickel smelting, refining[g]	1	1	-	-	-	-	-	-	-	-	-
2956	Non-ferrous metals nec, smelting, refining)	..	..									
2957	Secondary recovery and alloying of) non-ferrous metals nec)[f]	..	..	1	1	1	1	1	1	1	1	1
295	**Basic non-ferrous metals**	**2**	**2**	**1**	**1**	..	..	..	..	..	..	..
2961	Aluminium rolling, drawing, extruding	..	..	..	..	..	..	..	..	..	..	..
2962	Non-ferrous metals nec, rolling, drawing, extruding	..	..	4	4	4	4	3	3	3	2	2

Table S6 (continued)

Industry[b]		*1983–84*[c] *series*		*1989–90 series*								
ASIC code	*Description*	*1989 –90*	*1990 –91*	*1989 –90*	*1990 –91*	*1991 –92*	*1992*[d] *–93*	*1993*[d] *–94*	*1994*[d] *–95*	*1995*[d] *–96*	*1996*[d] *–97*	*2000*[d] *–01*
2963	Non-ferrous metal casting	..	..	4	3	3	3	3	2	2	1	1
296	**Non-ferrous metal basic products**	..	..	**2**	**2**	**2**	**1**	**1**	**1**	**1**	**1**	**1**
29	**BASIC METAL PRODUCTS**	**3**	**3**	**2**	**2**	**2**	**1**	**1**	**1**	**1**	**1**	**1**
3141	Fabricated structural steel	9	8	7	7	7	6	5	5	5	4	4
3142	Architectural aluminium products	12	11	12	11	10	9	8	7	6	5	4
3143	Architectural metal products nec	8	8	11	10	10	9	8	7	6	4	4
314	**Structural metal products**	**10**	**9**	**9**	**8**	**8**	**7**	**6**	**6**	**5**	**4**	**4**
3151	Metal containers	10	9	7	7	7	5	5	5	4	3	3
3152	Sheet metal furniture	8	7	7	7	7	5	5	5	4	4	4
3153	Sheet metal products nec	10	9	8	7	7	5	5	5	5	4	4
315	**Sheet metal products**	**10**	**9**	**7**	**7**	**7**	**5**	**5**	**5**	**4**	**4**	**4**
3161	Cutlery and hand tools nec	9	8	8	8	7	7	6	5	4	3	3
3162	Springs and wire products	9	9	7	7	6	6	6	5	4	3	3
3163	Nuts, bolts, screws and rivets	8	8	8	7	7	7	6	5	5	3	3
3164	Metal coating and finishing	6	6	7	7	6	6	5	4	3	2	2
3165	Non-ferrous steam, gas & water fittings	8	8	4	4	4	4	4	4	3	2	2
3166	Boiler and plate work	10	9	3	3	3	2	2	2	2	2	2
3167	Metal blinds and awnings	13	12	14	13	11	10	9	8	7	5	5
3168	Fabricated metal products nec	10	9	7	7	6	6	5	4	4	3	3
316	**Other fabricated metal products**	**9**	**9**	**7**	**7**	**6**	**6**	**5**	**5**	**4**	**3**	**3**
31	**FABRICATED METAL PRODUCTS**	**9**	**9**	**8**	**8**	**7**	**6**	**6**	**5**	**5**	**4**	**4**
3231	Motor vehicles	19	18	17	15	14	13	12	11	10	9	6
3232	Motor vehicle bodies, trailers, caravans	12	11	14	13	12	10	9	8	7	5	5

3233	Motor vehicle instruments & electrical equipment nec	13	12	14	13	12	11	10	9	8	7	7
3234	Motor vehicle parts nec	12	11	10	9	9	8	7	6	5	4	4
323	**Motor vehicles and parts**	**17**	**16**	**15**	**14**	**13**	**12**	**11**	**10**	**9**	**8**	**6**
3241	Ships	6	6	9	8	8	7	6	6	5	4	4
3242	Boats	8	7	5	5	4	4	3	3	3	2	2
3243	Railway rolling stock and locomotives	12	12	15	14	14	13	10	9	7	4	4
3244	Aircraft	1	1	11	10	10	9	7	6	5	3	3
3245	Transport equipment nec	8	8	3	3	3	3	2	2	2	1	1
324	**Other transport equipment**	**8**	**8**	**10**	**10**	**9**	**8**	**7**	**6**	**5**	**3**	**3**
32	**TRANSPORT EQUIPMENT**	**15**	**14**	**14**	**13**	**13**	**12**	**10**	**9**	**8**	**7**	**6**
3341	Photographic and optical goods	6	6	8	7	7	7	6	5	4	3	3
3342	Photographic film processing	8	8	8	7	7	6	6	5	4	3	3
3343	Measuring, professional & scientific equipment nec	4	4	4	4	4	4	3	3	2	1	1
334	**Photographic, professional and scientific equipment**	**6**	**6**	**7**	**6**	**6**	**6**	**5**	**4**	**4**	**2**	**2**
3351	Radio & TV receivers; audio equipment	5	5	7	7	4	4	3	3	2	1	1
3352	Electronic equipment nec	7	7	12	11	9	8	6	5	4	3	3
3353	Refrigerators & household appliances	12	11	13	12	12	10	9	7	6	4	4
3354	Water heating systems	3	3	3	3	3	2	2	2	2	2	2
3355	Electric and telephone cable and wire	10	10	10	10	9	9	8	7	6	4	4
3356	Batteries	3	3	13	11	10	8	7	5	4	3	3
3357	Electrical machinery & equipment nec	10	9	12	11	10	9	8	7	6	4	4
335	**Appliances & electrical equipment**	**9**	**9**	**12**	**11**	**9**	**9**	**7**	**6**	**5**	**3**	**3**
3361	Agricultural machinery	9	9	10	10	9	8	7	6	5	4	4
3362	Construction machinery	9	9	15	13	12	10	8	7	6	4	4
3363	Materials handling equipment	10	9	8	8	7	6	5	5	5	4	4

Table S6 (continued)

Industry[b]		*1983–84*[c] *series*		*1989–90 series*								
ASIC code	*Description*	*1989 –90*	*1990 –91*	*1989 –90*	*1990 –91*	*1991 –92*	*1992*[d] *–93*	*1993*[d] *–94*	*1994*[d] *–95*	*1995*[d] *–96*	*1996*[d] *–97*	*2000*[d] *–01*
3364	Wood and metal working machinery	10	10	7	6	6	5	4	4	3	2	2
3365	Pumps and compressors	12	12	14	13	12	11	9	7	6	4	4
3366	Commercial space heating and cooling equipment	10	10	11	10	10	8	7	6	5	4	4
3367	Dies, saw blades and machine tool accessories	8	8	6	6	6	5	5	4	4	3	3
3368	Food processing machinery	10	10	8	7	6	5	5	4	4	3	3
3369	Industrial machinery & equipment nec	10	10	10	9	9	7	7	6	5	4	4
336	**Industrial machinery & equipment**	**10**	**10**	**10**	**9**	**9**	**7**	**6**	**6**	**5**	**4**	**4**
33	**OTHER MACHINERY AND EQUIPMENT**	**9**	**9**	**11**	**10**	**9**	**8**	**7**	**6**	**5**	**3**	**3**
3451	Leather tanning and fur dressing	..	..	..	..	..	..	..	..	..	..	..
3452	Leather and leather substitute goods nec	11	11	7	7	7	6	5	4	3	2	2
345	**Leather and leather products**	**2**	**2**	**1**	**1**	**1**	**1**	**1**	**1**	..	..	..
3461	Rubber tyres, tubes, belts, hose and sheets	9	8	9	9	9	8	7	6	5	3	3
3462	Rubber products nec	7	7	11	11	10	10	8	7	6	4	4
346	**Rubber products**	**8**	**8**	**10**	**9**	**9**	**9**	**7**	**6**	**5**	**3**	**3**
3471	Flexible packaging and abrasive papers	12	11	10	9	9	9	7	6	5	3	3
3472	Rigid plastic sheeting)[f,g]											
3473	Hard surface floor covering nec)	11	11	9	9	9	9	7	6	5	3	3

3474	Plastic products nec	12	11	11	11	10	10	8	7	6	4	4
347	**Plastic and related products**	**12**	**11**	**11**	**10**	**10**	**10**	**8**	**7**	**6**	**4**	**4**
3481	Ophthalmic articles	7	6	8	6	6	6	5	4	3	2	2
3482	Jewellery and silverware	..	..	1	1	1	..	..	..	..	..	..
3483	Brooms and brushes	9	9	3	3	3	2	2	1	1	1	1
3484	Signs and advertising displays	7	6	4	4	4	4	3	2	2	1	1
3485	Sporting equipment	5	5	9	9	8	7	6	5	5	4	4
3486	Writing and marking equipment	8	8	9	8	8	7	6	5	4	3	3
3487	Manufacturing nec	13	12	16	14	12	11	9	8	7	5	4
348	**Other manufacturing**	**6**	**6**	**5**	**5**	**5**	**4**	**4**	**3**	**2**	**2**	**2**
34	**MISC. MANUFACTURING**	**10**	**9**	**9**	**8**	**8**	**8**	**7**	**6**	**4**	**3**	**3**
21-34	**TOTAL MANUFACTURING[h]**	**6**	**6**	**5**	**5**	**5**	**4**	**4**	**3**	**3**	**2**	**2**
		(7)	**(7)**	**(2)**	**(2)**	**(2)**	**(2)**	**(2)**	**(1)**	**(1)**	**(1)**	**(1)**

– nil.

.. Between 0 per cent and 0.5 per cent.

a Assistance provided by tariffs and certain non-tariff measures. The nominal rate of assistance on materials for each industry is an average of the nominal rates on materials used by that industry, weighted by the unassisted value of each material used.

b Industry subdivision, group, and class from the Australian Standard Industrial Classification (ASIC) 1983 Edition

c For comparative purposes estimates for 1989–90 and 1990–91 have been presented for the previous (1983–84 base) series.

d Estimates for 1992–93 to 2000–01 reflect 1991–92 prices, as data for that year were the latest available at the time of compilation.

e Estimates for 1991–92 and 1992–93 and projections through to 2000–01 reflect the Commission's projections of assistance to agricultural commodities.

f Assistance estimates not calculated separately because 1989–90 production data are confidential.

g Assistance estimates not calculated separately because 1983–84 production data are confidential.

h The figures in brackets are the medians of the nominal rates of assistance for 4-digit ASIC industries using the weights specified for the averages to determine the 50th percentile.

Source: Commission estimates

Table S7
Average effective rates of assistance[a] for manufacturing industries, 1989–90 to 1996–97 and 2000–01 (per cent)

Industry[b]		*1983–84*[c] *series*		*1989–90 series*								
ASIC code	*Description*	*1989 –90*	*1990 –91*	*1989 –90*	*1990 –91*	*1991 –92*	*1992*[d] *–93*	*1993*[d] *–94*	*1994*[d] *–95*	*1995*[d] *–96*	*1996*[d] *–97*	*2000*[d] *–01*
2115	Meat (except smallgoods or poultry)	-1	-1	..	..	..	..	..	..	..	1	1
2116	Poultry	1	1	1	1	1	1	1	1	1	1	1
2117	Bacon, ham and smallgoods nec	13	13	8	8	8	8	8	7	6	5	5
211	**Meat products**	**2**	**2**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
2121	Liquid milk and cream[e]	-3	-3	-3	-5	-3	-3	-3	-3	-3	-3	-2
2122	Butter[e]	2	2	14	23	23	23	21	20	17	15	8
2123	Cheese[e]	-2	-2	4	7	7	7	6	6	5	4	2
2124	Ice cream and frozen confections[e]	-10	-10	-2	-3	-1	-2	-1	..	..	..	-1
2125	Milk products nec[e]	-3	-4	10	8	12	12	12	13	12	10	5
212	**Milk products**[e]	**-4**	**-4**	**2**	**2**	**3**	**3**	**3**	**3**	**3**	**2**	**1**
2131	Fruit products[e]	8	9	21	19	18	16	14	12	10	7	7
2132	Vegetable products[e]	7	8	11	11	12	12	11	10	9	7	7
213	**Fruit and vegetable products**[e]	**8**	**8**	**14**	**14**	**14**	**14**	**12**	**11**	**9**	**7**	**7**
214	**Margarine and oils & fats nec**	**12**	**13**	**15**	**15**	**15**	**16**	**15**	**13**	**12**	**9**	**9**
2151	Flour mill products[e]	..	..	..	..	..	..	..	..	..	..	..
2152	Starch, gluten and starch sugars	13	11	8	8	7	6	6	6	5	5	5
2153	Cereal foods and baking mixes[e]	4	4	7	8	8	8	7	7	7	6	6
215	**Flour mill & cereal food products**[e]	**3**	**3**	**5**	**6**	**6**	**6**	**5**	**5**	**5**	**4**	**4**
2161	Bread[e]	-2	-2	..	..	-1	-1	..	..	..	..	..
2162	Cakes and pastries[e]	-4	-4	-4	-4	-4	-3	-3	-2	-2	-1	-1
2163	Biscuits[e]	8	5	9	6	2	3	4	4	5	6	6
216	**Bread, cakes and biscuits**[e]	**..**	**-1**	**1**	**..**	**-1**	**-1**	**..**	**..**	**..**	**1**	**1**

2171	Raw sugar)[e,f,g]	6	6	1	2	2	2	1	1	1	2	2
2176	Food products nec)											
2173	Confectionery and cocoa products[e]	22	21	22	19	19	17	14	11	8	4	5
2174	Processed seafoods	1	1	2	2	2	3	3	3	3	3	3
2175	Prepared animal and bird foods[e]	-3	-3	-4	-3	-3	-3	-2	-2	-2	-1	-1
217	**Other food products[e]**	**7**	**7**	**4**	**4**	**4**	**4**	**3**	**2**	**2**	**2**	**2**
2185	Soft drinks, cordials and syrups[e]	9	8	10	7	8	8	8	8	7	5	5
2186	Beer[e]	-3	-3	-3	-3	-3	-3	-2	-2	-2	-1	-1
2187	Malt)[e,f]	2	2	1	2	2	2	1	2	2	1	1
2189	Alcoholic beverages nec)	11	9									
2188	Wine and brandy[e]	22	19	21	20	18	18	14	13	11	8	8
218	**Beverages and malt[e]**	**7**	**6**	**4**	**4**	**4**	**4**	**3**	**3**	**3**	**2**	**2**
219	**Tobacco products[e]**	**-4**	**-4**	**4**	**7**	**7**	**8**	**8**	**7**	**6**	**5**	**5**
21	**FOOD, BEVERAGES & TOBACCO[e]**	**3**	**3**	**4**	**4**	**4**	**4**	**3**	**3**	**3**	**2**	**2**
2341	Cotton ginning	..	-3	-2	-2	-2	-2	-1	-1	-1	-1	-1
2342	Wool scouring and top making	-	-	2	2	2	3	7	8	8	8	8
2343	Man-made fibres and yarns	62	57	103	100	97	86	64	45	5	3	3
2344	Man-made fibre broadwoven fabrics	183	166	180	160	120	106	90	81	66	62	37
2345	Cotton yarns and broadwoven fabrics	100	95	85	76	70	61	53	47	35	33	22
2346	Worsted yarns & broadwoven fabrics	41	38	45	42	38	38	34	30	20	19	14
2347	Woollen yarns & broadwoven fabrics	39	38	25	24	25	24	20	16	9	9	5
2348	Narrow woven and elastic textiles	53	53	48	49	48	43	42	39	35	32	21
2349	Textile finishing	168	152	82	91	78	56	52	47	43	40	28
234	**Textile fibres, yarns &woven fabrics**	**86**	**79**	**59**	**56**	**49**	**42**	**37**	**33**	**24**	**23**	**15**
2351	Household textiles	122	139	52	60	61	44	43	40	37	35	26
2352	Textile floor coverings	151	142	94	89	88	80	75	72	66	63	40

Table S7 (continued)

Industry[b] ASIC code	Description	1983–84[c] series 1989–90	1983–84[c] series 1990–91	1989–90 series 1989–90	1989–90 series 1990–91	1989–90 series 1991–92	1989–90 series 1992[d]–93	1989–90 series 1993[d]–94	1989–90 series 1994[d]–95	1989–90 series 1995[d]–96	1989–90 series 1996[d]–97	1989–90 series 2000[d]–01
2353	Felt and felt products	27	26	18	18	18	18	15	13	9	6	6
2354	Canvas and associated products, nec	14	17	18	20	24	22	21	20	18	15	11
2355	Rope, cordage and twine	26	26	38	39	38	34	33	30	27	24	15
2356	Textile products nec	15	15	22	20	18	16	14	12	10	7	7
235	**Other textile products**	**50**	**50**	**46**	**44**	**44**	**39**	**37**	**34**	**31**	**28**	**19**
23	**TEXTILES**	**72**	**68**	**53**	**51**	**46**	**41**	**37**	**33**	**27**	**25**	**17**
2441	Hosiery	149	135	100	98	93	80	74	68	63	59	40
2442	Cardigans and pullovers	244	237	198	191	152	139	118	110	102	98	64
2443	Knitted goods nec	149	147	158	153	127	101	95	90	84	81	51
244	**Knitting mills**	**171**	**164**	**144**	**140**	**119**	**101**	**92**	**86**	**80**	**76**	**49**
2451	Mens trousers & shorts; work clothing	180	201	129	137	106	79	76	70	66	62	43
2452	Mens suits & coats; waterproof clothing	160	140	107	88	71	60	57	52	48	45	31
2453	Womens outwear nec	172	187	96	98	79	65	57	52	49	45	31
2454	Foundation garments	181	187	127	130	110	80	65	59	55	51	34
2455	Underwear and infants clothing nec	242	238	158	154	117	84	69	63	60	56	38
2456	Headwear and clothing nec	44	47	60	63	53	46	43	39	36	34	23
245	**Clothing**	**164**	**171**	**105**	**106**	**84**	**66**	**59**	**54**	**50**	**47**	**33**
246	**Footwear**	**224**	**231**	**111**	**116**	**91**	**67**	**60**	**54**	**50**	**46**	**24**
24	**CLOTHING AND FOOTWEAR**	**173**	**176**	**113**	**113**	**92**	**73**	**65**	**60**	**56**	**52**	**34**
2531	Log sawmilling	4	4	3	3	3	3	3	3	3	4	4
2532	Resawn and dressed timber	15	14	16	15	14	13	12	11	10	7	7
2533	Veneers & manufactured boards of wood	23	23	31	29	27	25	20	17	13	9	9
2534	Wooden doors	15	13	17	16	14	13	12	10	9	6	6

2535	Wooden structural fittings & joinery nec	14	13	8	7	7	6	6	5	5	4	4
2536	Wooden containers	8	8	2	2	2	2	2	2	1	1	1
2537	Hardwood woodchips	..	..	-2	-2	-2	-2	-2	-1	-1	-1	-1
2538	Wood products nec	19	17	16	15	14	12	11	10	9	7	7
253	**Wood and wood products**	**11**	**10**	**10**	**9**	**8**	**8**	**7**	**6**	**6**	**4**	**4**
2541	Furniture (except sheet metal)	29	24	30	26	22	17	13	11	9	5	5
2542	Mattresses (except rubber)	-3	-2	..	1	1	1	1	1	1	2	1
254	**Furniture and mattresses**	**23**	**20**	**26**	**22**	**19**	**15**	**12**	**9**	**8**	**4**	**4**
25	**WOOD, WOOD PRODUCTS AND FURNITURE**	**15**	**13**	**15**	**14**	**12**	**10**	**9**	**7**	**6**	**4**	**4**
2631	Pulp, paper and paperboard	17	15	11	11	11	11	9	8	6	4	4
2632	Paper bags (including textile bags)	24	19	26	20	20	20	16	13	10	6	6
2633	Solid fibreboard containers	30	24	25	20	20	20	16	13	10	6	6
2634	Corrugated fibreboard containers	26	19	26	21	20	21	16	13	11	6	6
2635	Paper products nec	25	21	27	22	22	22	17	14	11	6	6
263	**Paper and paper products**	**22**	**18**	**19**	**16**	**16**	**16**	**13**	**11**	**8**	**5**	**5**
2641	Publishing	..	-	-1	-1	-1	-1	-1	..	..	..	..
2642	Printing and publishing	..	..	..	..	..	..	..	..	..	..	..
2643	Paper stationery	23	18	23	19	18	18	15	12	10	6	6
2644	Printing and bookbinding	10	8	13	11	10	9	8	6	5	4	3
2645	Printing trade services nec	-3	-3	..	..	..	..	..	..	..	..	..
264	**Printing and allied industries**	**5**	**4**	**6**	**5**	**5**	**5**	**4**	**3**	**3**	**2**	**2**
26	**PAPER, PAPER PRODUCTS, PRINTING & PUBLISHING**	**9**	**7**	**9**	**7**	**7**	**7**	**6**	**5**	**4**	**2**	**2**
2751	Chemical fertilisers	2	2	-2	-2	-2	-2	-2	-2	-1	-1	-1
2752	Industrial gases[g]			..	..	..	..	..	..	..	..	..
2753	Synthetic resins and rubber	30	27	32	29	29	29	24	20	16	10	10

Table S7 (continued)

Industry[b]		*1983–84*[c] *series*		*1989–90 series*								
ASIC code	*Description*	*1989 –90*	*1990 –91*	*1989 –90*	*1990 –91*	*1991 –92*	*1992*[d] *–93*	*1993*[d] *–94*	*1994*[d] *–95*	*1995*[d] *–96*	*1996*[d] *–97*	*2000*[d] *–01*
2754	Organic industrial chemicals nec[g]	8	7	4	4	4	3	3	3	2	2	2
2755	Inorganic industrial chemicals nec	19	17	7	6	5	4	4	4	3	3	3
275	**Basic chemicals**	**17**	**16**	**11**	**10**	**10**	**10**	**8**	**7**	**5**	**4**	**4**
2761	Ammunition, explosives & fireworks	15	14	10	10	10	10	9	8	7	5	5
2762	Paints	20	21	22	22	22	23	18	15	12	7	7
2763	Pharmaceutical and veterinary products	2	2	-1	-1	-1	-1	..	..	..	..	..
2764	Pesticides	46	43	20	18	18	18	15	12	10	6	6
2765	Soap and other detergents	18	18	17	17	17	17	14	12	10	6	6
2766	Cosmetics and toilet preparations	18	16	19	18	18	18	14	12	10	6	6
2767	Inks	22	20	20	18	18	18	14	12	10	6	6
2768	Chemical products nec	22	20	18	18	17	17	14	12	10	7	7
276	**Other chemical products**	**14**	**13**	**12**	**12**	**12**	**12**	**10**	**8**	**7**	**4**	**4**
277	**Petroleum refining**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
278	**Petroleum & coal products nec**	**33**	**29**	**23**	**20**	**15**	**15**	**13**	**12**	**10**	**7**	**7**
27	**CHEMICAL, PETROLEUM AND COAL PRODUCTS**	**11**	**10**	**8**	**8**	**7**	**7**	**6**	**5**	**4**	**3**	**3**
285	**Glass and glass products**	**4**	**3**	**5**	**4**	**4**	**4**	**4**	**3**	**3**	**3**	**3**
2861	Clay bricks	-1	-1	..	..	..	..	..	..	..	..	..
2862	Refractories	14	13	3	3	3	2	2	2	2	1	1
2863	Ceramic tiles and pipes	12	11	9	9	9	8	8	7	6	5	5
2864	Ceramic goods nec	21	19	22	21	19	17	14	12	10	7	7
286	**Clay products & refractories**	**5**	**4**	**4**	**4**	**3**	**3**	**3**	**2**	**2**	**1**	**1**

2871	Cement	..	..	..	..	..	..	..	..	..	..	..
2872	Ready-mixed concrete[g]	-1	-1	-3	-3	-3	-3	-2	-2	-2	-1	-1
2873	Cement,concrete pipes & culverts[g]			4	4	4	4	4	3	3	2	2
2874	Concrete products nec	1	1	3	3	3	3	2	2	2	1	1
287	**Cement & concrete products**	**..**	**..**	**1**	**1**	**1**	**1**	**1**	**1**	**..**	**..**	**..**
2881	Plaster products & expanded minerals[g]	15	13	15	14	13	12	11	9	8	6	6
2882	Stone products[g]			15	14	13	12	11	10	9	7	7
2883	Glass wool and mineral wool products	13	12	20	17	14	14	12	10	8	5	5
2884	Non-metallic mineral products nec	5	6	3	3	2	2	2	2	2	2	2
288	**Other non-metallic mineral products**	**11**	**10**	**14**	**12**	**11**	**10**	**9**	**8**	**7**	**5**	**5**
28	**NON-METALLIC MINERAL PRODUCTS**	**3**	**3**	**4**	**4**	**3**	**3**	**3**	**3**	**2**	**2**	**2**
2941	Iron and steel basic products	8	8	17	17	17	12	11	11	11	10	10
2942	Iron casting	21	19	19	18	16	16	13	12	10	7	7
2943	Steel casting	26	25	28	26	25	23	18	15	12	8	8
2944	Iron and steel forging	32	31	20	19	18	17	14	12	10	6	6
2945	Steel pipes and tubes	16	15	21	18	16	18	15	13	10	5	5
294	**Basic iron and steel**	**11**	**11**	**18**	**18**	**17**	**13**	**12**	**11**	**11**	**9**	**9**
2951	Copper smelting, refining[g]			2	2	2	2	2	1	1	1	1
2952	Silver, lead, zinc smelting, refining	..	..	..	..	..	..	..	..	..	..	..
2953	Alumina	-8	-7	-2	-1	-1	-1	-1	-1	-1	-1	-1
2954	Aluminium smelting	--2	-1	..	..	..	..	..	..	..	..	..
2955	Nickel smelting, refining[g]	1	1	..	..	..	..	..	..	..	..	..
2956	Non-ferrous metals nec, smelting, refining)	3	2									
2957	Secondary recovery & alloying of) non-ferrous metals nec)[f]	2	2	-16	-15	-14	-16	-16	-16	-16	-15	-15

Table S7 (continued)

Industry[b]		1983–84[c] series		1989–90 series								
ASIC code	*Description*	*1989 –90*	*1990 –91*	*1989 –90*	*1990 –91*	*1991 –92*	*1992[d] –93*	*1993[d] –94*	*1994[d] –95*	*1995[d] –96*	*1996[d] –97*	*2000[d] –01*
295	**Basic non-ferrous metals**	**-4**	**-4**	**-1**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
2961	Aluminium rolling, drawing, extruding	46	42	60	56	51	47	42	36	31	22	22
2962	Non-ferrous metals nec, rolling, drawing, extruding	36	36	17	16	16	16	14	13	11	8	8
2963	Non-ferrous metal casting	14	13	28	26	25	23	18	15	12	7	7
296	**Non-ferrous metal basic products**	**38**	**35**	**38**	**36**	**33**	**31**	**27**	**24**	**20**	**14**	**14**
29	**BASIC METAL PRODUCTS**	**8**	**8**	**9**	**8**	**8**	**6**	**6**	**5**	**5**	**4**	**4**
3141	Fabricated structural steel	8	8	8	7	6	6	5	5	4	3	3
3142	Architectural aluminium products	23	21	20	19	18	18	13	10	7	3	4
3143	Architectural metal products nec	19	17	14	14	12	11	10	9	7	5	5
314	**Structural metal products**	**13**	**12**	**12**	**11**	**10**	**10**	**8**	**7**	**5**	**3**	**3**
3151	Metal containers	16	14	25	24	22	22	17	14	11	6	6
3152	Sheet metal furniture	32	26	32	27	23	21	16	13	10	5	5
3153	Sheet metal products nec	21	20	22	21	19	19	15	12	9	4	4
315	**Sheet metal products**	**20**	**19**	**24**	**22**	**20**	**20**	**15**	**12**	**9**	**5**	**5**
3161	Cutlery and hand tools nec	20	18	23	22	20	19	15	12	10	6	6
3162	Springs and wire products	16	15	18	17	15	14	11	9	7	4	4
3163	Nuts, bolts, screws and rivets	28	25	26	23	21	18	14	12	9	6	6
3164	Metal coating and finishing	20	18	22	21	20	19	15	13	10	6	6
3165	Non-ferrous steam, gas & water fittings	25	23	26	24	22	20	15	13	10	6	6
3166	Boiler and plate work	24	23	32	30	28	27	21	17	14	9	9

3167	Metal blinds and awnings	24	23	20	20	20	19	15	12	9	5	6
3168	Fabricated metal products nec	21	20	21	20	18	17	14	11	9	6	6
316	**Other fabricated metal products**	**22**	**20**	**22**	**21**	**19**	**18**	**14**	**12**	**9**	**6**	**6**
31	**FABRICATED METAL PRODUCTS**	**18**	**17**	**19**	**18**	**16**	**15**	**12**	**10**	**8**	**4**	**4**
3231	Motor vehicles	119	113	59	55	51	47	42	38	34	29	18
3232	Motor vehicle bodies, trailers, caravans	29	25	25	22	20	16	13	10	8	4	4
3233	Motor vehicle instruments & electrical equipment nec	53	49	48	45	43	39	38	36	34	33	22
3234	Motor vehicle parts nec	43	40	45	42	39	36	35	33	32	31	22
323	**Motor vehicles and parts**	**65**	**60**	**52**	**48**	**45**	**41**	**38**	**35**	**31**	**28**	**19**
3241	Ships	20	19	17	16	13	12	9	8	6	4	3
3242	Boats	26	24	35	33	30	27	23	20	17	12	12
3243	Railway rolling stock & locomotives	18	17	16	16	14	14	11	9	8	5	5
3244	Aircraft	2	2	-4	-4	-3	-3	-3	-2	-2	-1	-1
3245	Transport equipment nec	29	24	32	23	21	20	17	15	13	9	9
324	**Other transport equipment**	**14**	**13**	**10**	**9**	**7**	**7**	**5**	**5**	**4**	**2**	**2**
32	**TRANSPORT EQUIPMENT**	**35**	**33**	**37**	**34**	**31**	**29**	**26**	**24**	**21**	**19**	**13**
3341	Photographic and optical goods	12	17	19	22	21	15	10	9	8	6	6
3342	Photographic film processing	-2	-2	-2	-2	-2	-2	-1	-1	-1	-1	-1
3343	Measuring, professional & scientific equipment nec	7	6	9	9	9	8	6	5	5	4	4
334	**Photographic, professional & scientific equipment**	**3**	**4**	**17**	**17**	**15**	**14**	**11**	**10**	**8**	**7**	**7**
3351	Radio & TV receivers; audio equipment	20	19	17	17	13	13	11	10	9	7	7
3352	Electronic equipment nec	26	23	23	20	19	17	14	12	10	7	7
3353	Refrigerators & household appliances	27	24	25	23	19	17	13	11	9	6	5
3354	Water heating systems	34	32	45	41	37	34	27	23	18	11	11
3355	Electric & telephone cable & wire	20	18	7	6	4	3	3	2	2	2	2

Table S7 (continued)

Industry[b]		1983–84[c] series		1989–90 series								
ASIC code	*Description*	*1989–90*	*1990–91*	*1989–90*	*1990–91*	*1991–92*	*1992[d]–93*	*1993[d]–94*	*1994[d]–95*	*1995[d]–96*	*1996[d]–97*	*2000[d]–01*
3356	Batteries	61	53	37	32	27	22	19	17	16	13	13
3357	Electrical machinery & equipment nec	18	16	18	17	15	14	12	10	8	5	5
335	**Appliances & electrical equipment**	**24**	**21**	**21**	**19**	**17**	**15**	**12**	**10**	**9**	**6**	**6**
3361	Agricultural machinery	..	-1	4	3	3	3	3	3	3	2	3
3362	Construction machinery	17	15	9	9	8	8	7	6	5	4	4
3363	Materials handling equipment	26	23	33	29	25	23	18	15	11	6	6
3364	Wood and metal working machinery	11	11	11	11	10	9	8	7	6	5	5
3365	Pumps and compressors	17	15	14	13	11	10	9	8	7	5	5
3366	Commercial space heating and cooling equipment	31	27	34	31	26	24	19	15	12	7	7
3367	Dies, saw blades and machine tool accessories	16	16	19	19	18	16	13	11	9	5	5
3368	Food processing machinery	16	14	17	16	14	14	12	11	9	6	6
3369	Industrial machinery & equipment nec	9	8	18	16	14	13	10	9	7	5	5
336	**Industrial machinery and equipment**	**12**	**10**	**17**	**16**	**14**	**13**	**11**	**9**	**7**	**5**	**5**
33	**OTHER MACHINERY AND EQUIPMENT**	**17**	**15**	**19**	**17**	**15**	**14**	**11**	**9**	**8**	**5**	**5**
3451	Leather tanning and fur dressing	26	26	46	47	46	42	36	33	28	20	20
3452	Leather & leather substitute goods nec	30	30	24	24	22	21	19	17	15	13	10
345	Leather and leather products	27	27	39	39	38	35	30	27	23	18	17
3461	Rubber tyres, tubes, belts, hose & sheets	28	24	22	19	17	15	13	12	12	10	10
3462	Rubber products nec	32	29	23	21	18	14	11	10	8	6	6
346	**Rubber products**	**30**	**26**	**22**	**20**	**17**	**14**	**13**	**12**	**11**	**9**	**9**

3471	Flexible packaging & abrasive papers	20	18	18	17	17	17	13	11	9	6	6
3472	Rigid plastic sheeting)[f,g]											
3473	Hard surface floor covering nec)	14	13	10	9	9	9	7	6	5	3	3
3474	Plastic products nec	17	16	19	17	17	17	13	11	9	6	6
347	**Plastic and related products**	**18**	**17**	**18**	**17**	**17**	**17**	**13**	**11**	**9**	**6**	**6**
3481	Ophthalmic articles	15	13	19	16	16	16	13	11	9	6	6
3482	Jewellery and silverware	50	45	28	27	24	23	20	18	16	13	13
3483	Brooms and brushes	27	24	34	31	28	25	20	17	14	9	9
3484	Signs and advertising displays	21	20	28	26	23	21	17	14	11	7	7
3485	Sporting equipment	31	27	32	30	27	24	21	18	15	11	11
3486	Writing and marking equipment	18	17	13	12	11	11	9	7	6	4	4
3487	Manufacturing nec	15	14	5	4	4	3	3	3	2	1	2
348	**Other manufacturing**	**25**	**23**	**24**	**22**	**20**	**18**	**15**	**13**	**11**	**7**	**8**
34	**MISC. MANUFACTURING**	**22**	**20**	**20**	**19**	**18**	**17**	**14**	**12**	**10**	**7**	**7**
21-34	**TOTAL MANUFACTURING[h]**	**16**	**15**	**15**	**14**	**13**	**12**	**10**	**9**	**8**	**6**	**5**
		(9)	**(8)**	**(10)**	**(10)**	**(9)**	**(9)**	**(7)**	**(7)**	**(6)**	**(4)**	**(4)**

– nil.
.. Between -0.5 per cent and 0.5 per cent.
a Assistance to an activity, net of the effects of tariffs and certain other forms of government intervention which alter the prices of material inputs used by the industry. For certain TCF industries, the estimates also include some assistance to value-adding factors.
b Industry subdivision, group, and class from the Australian Standard Industrial Classification (ASIC) 1983 Edition.
c For comparative purposes estimates for 1989–90 and 1990–91 have been presented for the previous (1983–84 base) series.
d Estimates for 1992–93 to 2000–01 reflect 1991–92 prices, as data for that year were the latest available at the time of compilation.
e Estimates for 1991–92 and 1992–93 and projections through to 2000–01 reflect the Commission's projection of assistance to agricultural commodities.
f Assistance estimates not calculated separately because 1989–90 production data are confidential.
g Assistance estimates not calculated separately because 1983–84 production data are confidential.
h The figures in brackets are the medians of the effective rates of assistance for 4-digit ASIC industries using the weights specified for the averages to determine the 50th percentile.
Source: Commission estimates

Table S8
Standard deviations[a] for nominal rates on outputs, for manufacturing subdivisions[b], 1989–90 to 1996–97 and 2000–01 (percentage points)

Industry *ASIC code*	*Description*	*1989 –90*	*1990 –91*	*1991 –92*	*1992 –93*	*1993 –94*	*1994 –95*	*1995 –96*	*1996 –97*	*2000 –01*
21	Food, beverages and tobacco[c]	5	6	5	5	5	4	4	3	2
23	Textiles	18	17	15	12	11	10	9	9	6
24	Clothing and footwear	13	13	9	7	5	5	5	5	4
25	Wood, wood products and furniture	7	6	5	4	3	3	2	1	1
26	Paper, paper products, printing and publishing	6	5	5	5	4	3	2	2	2
27	Chemical, petroleum and coal products	5	4	4	4	4	3	2	2	2
28	Non-metallic mineral products	4	4	3	3	3	2	2	2	2
29	Basic metal products	4	4	4	3	3	3	2	2	2
31	Fabricated metal products	3	3	3	3	2	2	1	1	1
32	Transport equipment	9	8	8	7	7	6	6	6	4
33	Other machinery and equipment	3	3	3	2	2	1	1	1	1
34	Miscellaneous manufacturing	3	2	2	2	2	1	1	1	1
21-34	**Total manufacturing**	**11**	**11**	**9**	**8**	**7**	**7**	**6**	**5**	**4**

a Standard deviations calculated between 4-digit ASIC industries within a subdivision. The standard deviation measures how far from the average the items in a frequency distribution are located, thereby measuring the extent of variation or dispersion in the distribution. The larger the variability in rates of assistance between individual industries, the larger the standard deviation.
b Industry subdivisions from the Australian Standard Industrial Classification (ASIC) 1983 Edition.
c Estimates for 1991–92 and 1992–93 and projections through to 2000–01 reflect the Commission's projections of assistance to agricultural commodities.
Source: Commission estimates

Table S9

Standard deviations[a] for effective rates of assistance for manufacturing subdivisions[b], 1989–90 to 1996–97 and 2000–01 (percentage points)

Industry *ASIC code*	*Description*	*1989 –90*	*1990 –91*	*1991 –92*	*1992 –93*	*1993 –94*	*1994 –95*	*1995 –96*	*1996 –97*	*2000 –01*
21	Food, beverages and tobacco[c]	7	7	7	7	6	5	4	3	5
23	Textiles	47	43	37	32	28	25	23	22	13
24	Clothing and footwear	33	32	25	19	17	16	15	15	10
25	Wood, wood products and furniture	12	11	9	7	6	5	4	2	2
26	Paper, paper products, printing and publishing	9	8	7	7	6	5	4	2	2
27	Chemical, petroleum and coal products	11	10	10	10	8	7	5	3	3
28	Non-metallic mineral products	6	6	5	5	4	4	3	2	2
29	Basic metal products	13	12	12	10	9	8	7	6	6
31	Fabricated metal products	7	6	6	6	4	3	2	1	1
32	Transport equipment	23	21	20	19	17	16	15	14	9
33	Other machinery and equipment	7	6	5	5	4	3	2	2	2
34	Miscellaneous manufacturing	6	6	5	5	4	4	3	3	3
21-34	**Total manufacturing**	**22**	**21**	**18**	**16**	**14**	**13**	**11**	**10**	**7**

a Standard deviations calculated between 4-digit ASIC industries within a subdivision. The standard deviation measures how far from the average the items in a frequency distribution are located, thereby measuring the extent of variation or dispersion in the distribution. The larger the variability in rates of assistance between individual industries, the larger the standard deviation.
b Industry subdivisions from the Australian Standard Industrial Classification (ASIC) 1983 Edition.
c Estimates for 1991–92 and 1992–93 and projections through to 2000–01 reflect the Commission's projections of assistance to agricultural commodities.
Source: Commission estimates

Table S10
Subsidy equivalents, tax on materials and consumer tax equivalents[a] for manufacturing subdivisions[b], 1989–90, 1992–93 and 2000–01 ($ million)

Industry		*Gross subsidy equivalent*[c]			*Tax on materials*[d]			*Net subsidy equivalents*[e]			*Consumer tax equivalent*[f]		
ASIC code	*Description*	*1989–90*	*1992–93*	*2000–01*	*1989–90*	*1992–93*	*2000–01*	*1989–90*	*1992–93*	*2000–01*	*1989–90*	*1992–93*	*2000–01*
21	Food, beverages and tobacco[g]	1 512	1 657	854	1 077	1 192	570	436	465	285	1 224	1 358	542
23	Textiles	799	630	262	198	160	67	603	470	196	2 248	284	161
24	Clothing and footwear	1 614	1 150	531	313	248	108	1 301	902	428	2 032	1 510	964
25	Wood, wood products & furniture	793	617	262	280	245	104	513	372	159	440	314	128
26	Paper, paper products, printing and publishing	816	725	258	231	235	92	584	489	166	91	86	31
27	Chemical, petroleum and coal products	843	806	311	305	286	117	538	520	194	204	213	95
28	Non-metallic mineral products	206	180	95	60	57	28	146	123	67	36	29	18
29	Basic metal products	869	678	437	224	181	131	645	497	306	94	71	46
31	Fabricated metal products	1 295	1 122	435	456	384	220	840	739	215	310	263	112
32	Transport equipment	3 050	2 580	1 182	1 094	937	457	1 956	1 643	725	2 198	1 971	1 180
33	Other machinery and equipment	1 874	1 459	590	703	555	238	1 171	903	352	1 401	995	561
34	Miscellaneous manufacturing	953	861	336	314	300	109	638	561	230	272	222	128
21-34	**Total manufacturing**	**14 625**	**12 463**	**5 553**	**5 255**	**4 780**	**2 240**	**9 371**	**7 683**	**3 322**	**8 649**	**7 316**	**3 967**

a These represent the income transfers throughout the community from assistance and, consequently, should not be used as measures of the economic (or welfare) costs to the community. Figures for 1989–90 are in current prices whilst those for 1992–93 and 2000–01 are expressed in 1991–92 prices, using price indexes of articles produced by manufacturing industries.

b Industry subdivisions from ASIC 1983 Edition.

c The gross subsidy equivalent is the estimated change in producers' gross returns from assistance. It is the notional amount of money necessary to provide an industry with a level of assistance equivalent to the nominal rate of assistance on its output. Gross subsidy equivalents for individual industries have been summed to derive totals for industry groups and the sector as a whole. These totals will exceed the actual group and sector totals due to some of the outputs of industries being used as intermediate inputs by other industries in the same group or sector.

d The tax on materials is the estimated net change in costs to user industries due to government intervention altering the prices paid for intermediate inputs. Taxes on materials for individual industries have been summed to derive totals for industry groups and the sector as a whole. These totals will exceed the actual group and sector totals due to some of the outputs of industries being used as intermediate inputs by other industries in the same group or sector.

e The net subsidy equivalent is the estimated change in returns to an activity's value added due to assistance. It is the notional amount of money necessary to provide a level of assistance to an activity's value added equivalent to its effective rate of assistance. It is equal to the gross subsidy equivalent plus assistance to value-adding factors, less the tax on materials.

f The consumer tax equivalent is the transfer from final consumers paying higher prices due to assistance. The estimates in this table cover transfers from consumers of final goods, and hence cannot be compared with estimates published before 1984–85 which included the transfers from both final consumers and intermediate users. Transfers due to intermediate usage of outputs by other industries were excluded using ABS input-output data for 1986–87.

g Estimates for 1991–92 and 1992–93 and projections through to 2000–01 reflect the Commission's projections of assistance to agricultural commodities.

Source: Commission estimates

Corporate review

T Administrative matters

U Inquiry activity and reports of the Commission

V Feedback on Commission reports

APPENDIX T
ADMINISTRATIVE MATTERS

This appendix outlines various activities of the Industry Commission over the past year and also addresses formal reporting requirements. Topics covered include the role, structure and staffing of the Commission, inquiry and reporting activities, corporate service functions and responsibilities, management issues and external scrutiny.

The Industry Commission is the Commonwealth Government's major review and inquiry body on industry matters. Its expertise is in examining microeconomic policy issues. Its functions are to:

- hold public inquiries and report on matters referred to it by the Government;
- undertake activities incidental to its inquiry function, such as advising on business regulation and publishing information papers to enhance community understanding of industry policy issues; and
- report annually on the economic performance of industry and the effects of assistance and regulation on industry and the economy.

The operations of the Commission are governed by the *Industry Commission Act 1989*. The Commission operates on three fundamental precepts:

- it is an independent advisor on industry policy matters;
- its inquiry procedures are open and public, providing the opportunity for community input to and scrutiny of the advice the Commission provides to Australian governments; and
- it approaches industry policy issues from the perspective of the community as a whole — rather than the interests of any particular industry or group.

Within the Commission, the Office of Regulation Review is responsible for examining and advising the Government on proposed business regulation. It prepares public information papers and submissions on developments in regulation. An overview of the work of this part of the Commission is provided in Appendix M.

The Commission provides the Secretariat for the Steering Committee on National Performance Monitoring of Government Trading Enterprises (GTEs). The Chairperson of the Commission acts as the Chairperson of the Steering Committee. The Steering Committee was established by the Special Premiers' Conference in July 1991 to develop a framework for national performance monitoring of GTEs and to report on that performance.

The Commission provides formal advice to the Development Allowance Authority on the level of assistance provided to firms applying for the Government's Special Development Allowance.

Structure of the Commission

Background

The Commission consists of a Chairperson and a number of Commissioners appointed under the Industry Commission Act, supported

Table T1
Chairperson and Commissioners

	Period of Appointment	
Name	*From*	*To*
Mr W I Scales AO (Chairperson)	21 May 1992	20 May 1997
Mr G R Banks	19 June 1991	18 June 1996
Dr R G Mauldon	9 March 1990	31 December 1994
Dr M L Parker	9 March 1990	8 March 1995
Mr K J Horton-Stephens	9 March 1990	8 March 1995
Dr T J Hundloe	10 February 1992	9 February 1997
Mr J R Rae	1 December 1992	30 November 1997
Mrs H J Owens	8 February 1993	7 February 1998

by an administrative Office. As at 30 June 1993, of 267 staff (including 37 inoperative staff) employed under the *Public Service Act 1922*. There were no significant changes to the corporate structure in terms of numbers of staff or the spread across classification levels during the year.

Twin cities policy

On 13 May 1992, the Treasurer announced that the Commission was to move all positions to Melbourne over the following three years. Action was taken to set up a temporary Melbourne office located in the Rialto building and approximately 40 staff at various levels currently occupy this accommodation. On 8 April 1993, there was a further announcement that the Commission would have a Head Office in Melbourne with 155 positions and retain a presence in Canberra with 70 staff. The Melbourne office will move to permanent accommodation in the Collins Place building from early December 1993.

The number of staff in the Melbourne office will be increased from late 1993 with new appointments and transfers from the Canberra office.

Chairperson and Commissioners

The Chairperson, Mr W I Scales AO is assisted by seven Commissioners, one full-time Associate Commissioner and five part-time Associate Commissioners. The full-time membership of the Commission (at 30 June 1993) and the periods of appointment are shown in Table T1.

Executive Commissioner

Mr G R Banks was appointed as Executive Commissioner on 4 August 1993. The Executive Commissioner position will remain based in Canberra.

Commissioners who left during the year

A Commissioner, Mr A C Harris, who had been on indefinite leave from 7 January 1992 to take up a position as Head of Office of the Treasurer, resigned on 4 September 1992 to take up the position of NSW Auditor-General.

Table T2
Part-time Associate Commissioners as at 30 June 1993

Name	*Inquiry*	*Appointed*	*Due to end*
Dr R N Byron	Adding further value to Australia's forest products	16 Oct. 1992	18 Sept. 1993
Prof C Walsh	Impediments to regional industry adjustment	16 Oct. 1992	18 Dec. 1993
Dr D Scrafton	Urban transport	27 Oct. 1992	15 Feb. 1994
Mr J A Ware	Environmental waste management equipment, systems & services	29 Oct. 1992	18 Sept. 1993
Prof J W Neville	Public housing	25 Nov. 1992	5 Nov. 1993

Table T3
Part-time Associate Commissioner appointments ended in 1992–93

Name	*Inquiry*	*Appointed*	*Ended*
Ass. Prof H J Owens	Workers' compensation in Australia	10 Nov. 1992	7 Feb. 1993
Mrs H A Rolfe	Taxation and financial policy impacts on urban settlement	15 Feb. 1992	7 April 1993
Mr R A Piggot	Horticulture	18 Dec. 1991	18 Feb. 1993
Mr J A Hoggett	Mail, courier and parcel services	30 Oct. 1991	30 Oct. 1992
Mrs H A Rolfe	Book production	15 Feb. 1992	24 Sept. 1992
Mr K F Wraith	Intrastate aviation	24 Sept. 1991	18 July 1992
Mr D R Chapman	Water resources and waste water disposal	18 July 1991	18 July 1992

Associate Commissioners (full-time)

Mr N Gruen was appointed as a full-time Associate Commissioner for the period 19 April 1993 to 18 April 1994.

Associate Commissioners (part-time)

During the year, part-time Associate Commissioners were appointed for the duration of particular inquiries as shown in Table T2.

Associate Commissioners (part-time) — appointments which ended in 1992–93

During the year a number of part-time Associate Commissioner appointments ended with the completion of the relevant inquiry. Details are shown in Table T3. Associate Professor H J Owens' appointment ended because of her appointment as a full-time Commissioner.

Staffing of the Office of the Industry Commission

As at 30 June 1993, the Industry Commission had 267 staff (including 37 inoperatives). All were employed under the Public Service Act 1922.

Tables T4 through T9 give various breakdowns of staff characteristics as at 30 June 1993, including the Senior Executive Service (SES) component and employment at various levels. In each case, figures in brackets report the corresponding numbers a year earlier.

The Commission's organisation structure is shown in Figure T1.

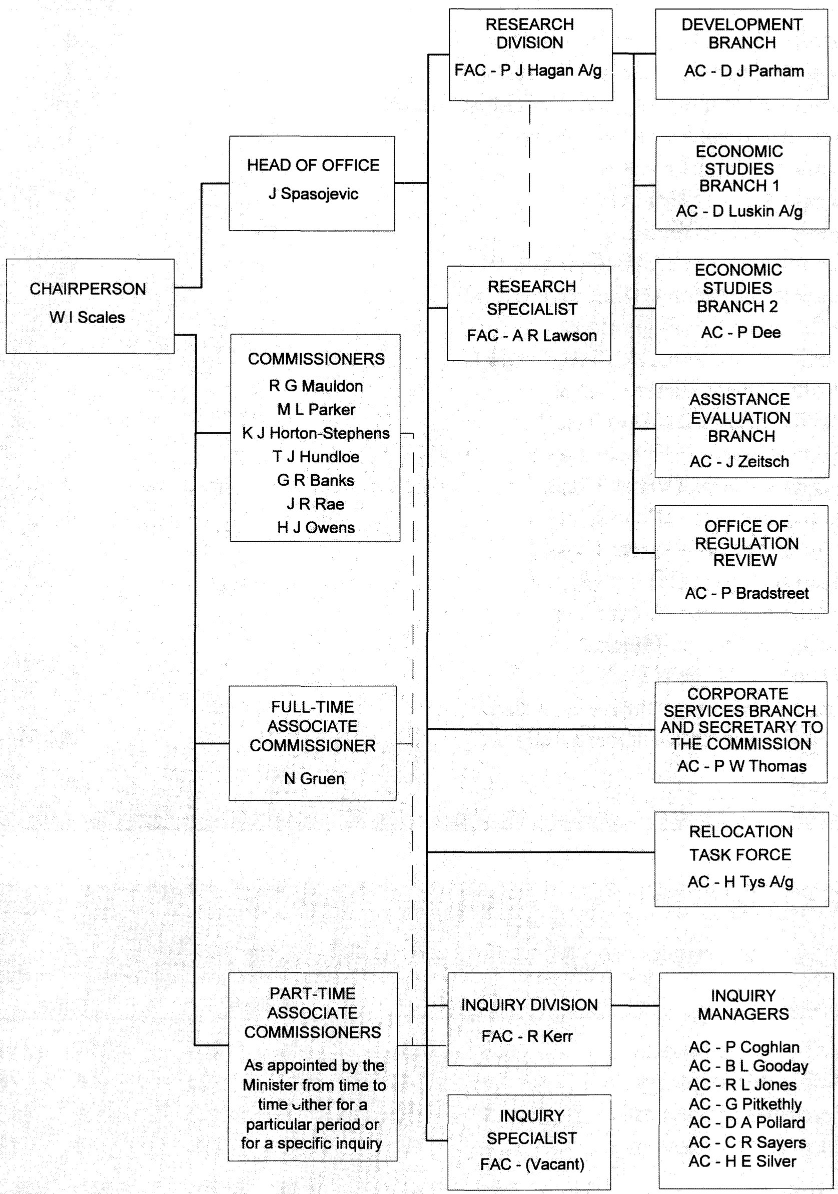
No staff of the Commission participated in the APS-wide Interchange Scheme during 1992–93.

Table T4
Staffing profile as at 30 June 1993[a]

Level	*Female*		*Male*	
Senior Executive Service Band 3	0	(0)	1	(1)
Senior Executive Service Band 2	0	(0)	3	(5)
Senior Executive Service (Specialist) Band 2	0	(0)	1	(1)
Senior Executive Service Band 1	4	(2)	14	(13)
Senior Officer Grade A	0	(0)	1	(1)
Senior Officer Grade B	7	(5)	27	(31)
Senior Officer Grade C	11	(10)	25	(25)
Senior Info Tech Officer Grade B	0	(0)	2	(2)
Senior Info Tech Officer Grade C	2	(2)	3	(2)
Info Tech Officer Grade 2	0	(0)	1	(1)
Senior Professional Officer Grade C	1	(2)	0	(0)
Professional Officer Class 2	2	(2)	0	(0)
Public Affairs Officer Class 3	1	(0)	0	(0)
Administrative Officer Class 6	11	(9)	16	(13)
Administrative Officer Class 5	17	(15)	27	(23)
Administrative Officer Class 4	5	(4)	1	(2)
Administrative Officer Class 3	26	(28)	3	(2)
Administrative Officer Class 2	15	(19)	3	(4)
Administrative Officer Class 1	1	(4)	4	(3)
Research Officer Grade 2	8	(4)	5	(13)
Graduate Administrative Assistant	8	(7)	10	(8)
General Services Officer Grade 3	0	(0)	1	(0)
General Services Officer Grade 2	0	(1)	0	(0)
Total	**119**	**(114)**	**148**	**(150)**

a Includes inoperative staff. Figures in brackets are the corresponding numbers as at 30 June 1992.

Figure T1
Organisation structure as at 30 June 1993



FAC - First Assistant Commissioner
AC - Assistant Commissioner
A/g - Acting in the position

Table T5
Staff by level by location as at 30 June 1993

Level	*Canberra*	*Melbourne*
Senior Executive Service Band 3	1	0
Senior Executive Service Band 2	3	0
Senior Executive Service (Specialist) Band 2	1	0
Senior Executive Service Band 1	15	3
Senior Officer Grade A	1	0
Senior Officer Grade B	31	3
Senior Officer Grade C	29	7
Senior Info Tech Officer Grade B	2	0
Senior Info Tech Officer Grade C	3	2
Info Tech Officer Grade 2	1	0
Senior Professional Officer Grade C	1	0
Professional Officer Class 2	2	0
Public Affairs Officer Class 3	1	0
Administrative Officer Class 6	22	5
Administrative Officer Class 5	39	5
Administrative Officer Class 4	6	0
Administrative Officer Class 3	29	0
Administrative Officer Class 2	14	4
Administrative Officer Class 1	4	1
Research Officer Grade 2	7	6
Research Officer Grade 1	0	0
Graduate Administrative Assistant	14	4
General Services Officer Grade 3	1	0
Total	**227**	**40**

Table T6
Staff by employment status as at 30 June 1993[a]

Status	*Female*		*Male*		*Total*	
Full-time permanent	105	(105)	146	(146)	251	(251)
Full-time temporary	4	(4)	2	(2)	6	(6)
Part-time permanent	9	(3)	0	(2)	9	(5)
Part-time temporary	1	(2)	0	(0)	1	(2)
Total	**119**	**(114)**	**148**	**(150)**	**267**	**(264)**

a Figures in brackets are the corresponding numbers as at 30 June 1992.

Table T7
Senior Executive Service staff by employment status as at 30 June 1993[a]

Level	*Status*	*Female*		*Male*		*Total*	
Band 3	Permanent	0	(0)	1	(1)	1	(1)
Band 2	Permanent	0	(0)	2	(2)	2	(2)
Band 2 (HDA)	Temporary	0	(0)	1	(1)	1	(1)
Band 2 (Specialist)	Permanent	0	(0)	1	(1)	1	(1)
Band 2	Inoperative	0	(0)	1	(2)	1	(2)
Band 1	Permanent	2	(2)	9	(11)	11	(13)
Band 1 (HDA)	Temporary	0	(0)	2	(1)	2	(1)
Band 1	Inoperative	2	(0)	2	(1)	4	(1)
Total		**4**	**(2)**	**19**	**(20)**	**23**	**(22)**

a Figures in brackets are the corresponding numbers as at 30 June 1992.

Staffing by level by location

The division of staff between the two locations as at 30 June 1993 is shown in Table T5.

All staff — Full-time/part-time/permanent/temporary status

Table T6 shows the Commission's staff categorised by full-time or part-time and permanent or temporary staffing status as at 30 June 1993.

Senior Executive Service staff — permanent/temporary/inoperative status

Table T7 shows the Commission's Senior Executive Service staff categorised by full-time or part-time and permanent or temporary staffing status as at 30 June 1993.

Recruitment and separations

Staff separations during 1992–93 by classification and reason for separation are shown in Table T8.

Table T8
Classification and reason for separation of staff, 1992–93[a]

	Reason for separation									
	Promotion		*Transfer*		*Resignation*		*Retirement*		*Other*	
Senior Exec Service	0	(0)	1	(1)	1	(0)	1	(0)	0	(0)
Senior Officer Gr B	1	(0)	4	(1)	4	(1)	0	(0)	1	(0)
Senior Officer Gr C	0	(0)	3	(0)	1	(1)	0	(0)	1	(1)
Snr Info Tech Off Gr C	0	(0)	0	(1)	0	(0)	0	(0)	0	(0)
Snr Prof Off Grade C	0	(0)	1	(0)	0	(0)	0	(0)	0	(0)
Prof Off Class 2	0	(0)	0	(0)	1	(0)	0	(0)	0	(0)
ASOC 6	1	(1)	3	(3)	0	(0)	0	(0)	3	(0)
ASOC 5	4	(4)	2	(3)	1	(0)	0	(0)	2	(0)
ASOC 4	0	(0)	1	(0)	2	(0)	0	(0)	0	(1)
ASOC 3	0	(1)	2	(3)	3	(0)	0	(1)	5	(0)
ASOC 2	3	(0)	0	(0)	0	(0)	0	(0)	3	(0)
ASOC 1	1	(0)	2	(1)	0	(0)	0	(0)	4	(0)
Research Off 2	4	(0)	0	(0)	0	(0)	0	(0)	1	(0)
GSO 3	0	(0)	0	(0)	0	(0)	0	(0)	2	(0)
GSO 2	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)
GAA	0	(0)	0	(0)	2	(0)	2	(0)	0	(0)
Total	**14**	**(6)**	**19**	**(13)**	**15**	**(2)**	**3**	**(1)**	**22**	**(2)**

a Figures in brackets are the corresponding numbers for 1991–92.

Of the 22 separations for 'other' reasons, 18 were due to temporary transfers and contracts ending. The other separations were due to dismissal, death or Part IV Mobility under the Public Service Act.

The Commission recruited 84 staff during 1992–93. Of these, 27 females and 31 males were employed as full-time permanent staff and 18 were graduates. The other 13 females and 13 males were employed on a full-time temporary basis during the year for various periods.

The establishment of the Commission's Melbourne office has led to an increase in separations as staff who do not wish to transfer to Melbourne take the opportunity to secure positions in Canberra or make other arrangements.

There were no applications from departing officers under Chapter 13 of the *Guidelines on Official Conduct of Commonwealth Public Servants (1987)*

Table T9
Equal Employment Opportunity target groups as at 30 June 93

	Above $57 248	*$47 108 -57 247*	*$42 089 -47 107*	*$35 972 -42 088*	*$33 025 -35 971*	*$29 453 -33 024*	*$26 569 -29 452*	*$23 499 -26 568*	*Below $23 498*	*Total*
	Includes SES	*SOA / SOB and equiv*	*SOC and equiv*	*includes ASOC6*	*includes ASOC5*	*includes ASOC4*	*includes ASOC3*	*includes ASOC2*	*includes ASOC1*	
Sex										
- female	4	7	15	13	17	13	26	23	1	**119**
- male	19	30	28	17	27	6	3	13	5	**148**
Total	**23**	**37**	**43**	**30**	**44**	**19**	**29**	**36**	**6**	**267**
Aboriginal or Torres Strait Islanders	0	0	0	0	0	0	0	0	0	**0**
People with disabilities	0	2	3	1	0	1	1	0	1	**9**
Non-English speaking background										
- 1st generation	3	3	5	1	6	0	0	3	0	**21**
- 2nd generation	0	1	0	0	5	6	1	4	1	**18**

Source: Based on staff responses to voluntary EEO surveys relating to the acceptance of business appointments on retirement or resignation.

Equal employment opportunity in appointments

Each of the 84 people recruited to the Commission during 1992–93 was given the opportunity to identify with any of the Equal Employment Opportunity groups. Where new staff indicated membership of the groups, the records show that there were 40 women, 10 people of Non-English Speaking Background, no Aboriginal and Torres Strait Islanders and 2 people with intellectual or physical disabilities.

The division of staff between the sexes has altered only slightly since last year with females now occupying 45 per cent of all positions, up from 43 per cent. One additional female has joined the Senior Executive Service of the Commission bringing the percentage at females in that group to 17 per cent (9 per cent last year).

Inquiry activities

Inquiry and research reports

The Commission exists to promote constructive change in Australian economic life. The principal way it seeks to do this is through its inquiry and annual reports. This is reflected in the organisation's mission statement:

> Our mission is to improve the well-being of Australians by informing the community and providing independent, public advice to Australian governments on ways to improve overall economic performance.

The Commission strives to prepare high-quality assessments of the way the economy operates and a compelling case for improving performance through structural change. It succeeds when it brings about worthwhile reform. Often that success is only achieved after a period in which a consensus for reform emerges. While the Commission helps in the ongoing process of building a consensus for reform, it measures its performance by:

- the extent to which it presents its findings clearly, consistently and persuasively — and in a timely fashion;

Table T10
Inquiry activity, 1990–91 to 1992–93

	1990–91	*1991–92*	*1992–93*
References received	10	8	8
Issues/background papers released	10	8	8
Public hearings (sitting days)	134	94	96
Participants[a]	2029[b]	999	890
Draft reports completed	10	11	7
Reports completed[c]	9	13	7
References on hand (as at 30 June)	11	7	8

a Number of participants in inquiries for which reports were completed in the year.
b Includes 795 participants in the inquiry on aids and appliances for people with disabilities.
c Includes interim reports, reports on parts of references and reports covering more than one reference. Draft reports are listed separately.

- how it assesses and weighs the arguments of those who advocate alternative approaches;
- its ability to identify, and where possible quantify, the effects of impediments to achieving higher community living standards;
- its effectiveness in identifying ways to remove or reduce impediments, while taking into account social impacts, adjustment costs and environmental consequences; and
- its effectiveness in monitoring and reporting on the performance of Australian industry.

The Government asked the Commission to undertake eight new inquiries during the year. Table T10 provides information on inquiry-related activities over the past three years.

In its inquiry process, the Commission seeks to increase community understanding of the way industry policies and regulations work. It is difficult to measure performance against this objective in the short term. The Commission aims to stimulate debate by involving the public in the inquiry process, by releasing information, discussion, working and issues papers, and by generating media coverage of its recommendations for change.

Table T11
Inquiry (non-salary) expenditure, 1992–93

Inquiry	*Term of inquiry*	*Travel*	*Reports*	*Consultants*	*Other*	*Total 1992–93*	*Total exp all years* [a]
Water resources and waste water disposal	07/91-07/92	9 308	9 425	0	1 749	20 482	162 921
Intrastate aviation	07/91-07/92	7 597	6 716	0	976	15 289	74 886
Taxation and financial policy impacts on urban settlement	11/91-04/93	29 840	10 468	32 351	13 281	85 940	154 575
Mail, courier and parcel services	10/91-10/92	27 533	9 215	0	10 607	47 355	99 045
Horticulture (Australian Horticultural Corporation 12/91–06/92)	12/91-12/92	22 893	17 774	0	12 198	52 865	109 449
Port authority services and activities	03/92-03/93	66 618	0	0	27 857	94 475	119 308
Book production	03/92-10/92	24 919	4 479	0	4 629	34 027	48 788
Urban transport	09/92-02/94	102 308	0	3 224	24 024	129 554	129 778
Environmental waste management equipment, systems & services	09/92-09/93	74 191	0	0	21 631	95 822	
Adding further value to Australia's forest products	09/92-09/93	41 867	0	38 500	18 086	98 453	
Impediments to regional industry adjustment	09/92-12/93	56 594	0	0	5 346	61 940	
Public housing	11/92-11/93	69 658	0	6 300	42 629	118 587	
Workers' compensation in Australia	11/92-02/94	52 728	0	0	29 965	82 693	
Petroleum industry	05/93-07/94	4 971	0	0	1 828	6 799	
General inquiry preparation and marketing		38 895	6 921	3 950	15 760	65 526	72 468
Total		**629 920**	**64 998**	**84 325**	**230 566**	**1 009 807**	

a Total expenditure is shown for completed inquiries only.

Table T12
Total inquiry expenditure[a], 1992–93 ($)

Inquiry	*Approximate salary costs*	*Other costs*	*Estimated total cost*
Intrastate aviation	290 000	75 000	365 000
Water resources and waste water disposal	609 000	163 000	772 000
Book production	150 000	34 000	184 000
Mail, courier and parcel services	327 000	99 000	426 000
Horticulture	439 000	107 000	546 000
Taxation and financial policy impacts on urban settlement	708 000	155 000	863 000
Port authority services and activities	530 000	94 000	624 000

a Rounded to nearest $1000.

Commission inquiries into aspects of the Australian economy generate considerable community interest and debate. For example, during the year:

- the Commission released 8 190 copies of its final reports and 6 801 copies of its draft reports — a total of 14 991 reports;
- in addition, approximately 1 300 copies of information papers, and 350 copies of working papers were sent to interested parties;
- public inquiries involving a total of 96 sitting days were held; and
- seminars and other workshops relating to its inquiries or other reporting obligations were conducted.

Media reaction to reports and other publications is monitored and reported to monthly meetings of Commissioners.

Further information on inquiry activity and reports can be found in Appendix U. That appendix shows the stages of completion of inquiries and summarises the Government's response to Commission reports where this has occurred.

Table T11 summaries the Commission's 1992–93 inquiry expenditure on such items as travel and printing. These figures represent total expenditure for inquiries completed in 1992–93. Because of the difficulty in apportioning exact time that Commissioners and staff spend on individual inquiries, direct salary costs, as shown in Table T12, are approximate.

In addition to inquiry work, Commission staff were involved in various research activities. Details of the publications of the Commission in 1992–93 are shown at Attachment T2.

Consultancy services

The Commission engages consultants when the required specialist knowledge or expertise is not available within the Commission. Forty-one consultants were engaged during 1992–93 at a total cost to the Commission of $258 467. Table T13 sets out summary details on the number of consultants engaged and their overall cost, by category. Table T14 provides further detail, including the purpose and cost in the case of consultancies exceeding $2000. Full details of consultancies can be obtained from the Commission on request.

Corporate activities

Financial statement

A summary of the Commission's financial position for 1992–93 is presented in Table T15. The Commission's formal financial statement for 1992–93 is at Attachment T1. The Commission's financial statement for 1992–93 has been prepared on an accrual accounting basis as part of the pilot reporting program being conducted by the Department of Finance.

Table T13
Consultancy services by category, 1992–93

Object of Consultancy	*Consultancies*	*Cost*
	no.	$
Seminar presentations/lectures	12	5 411
Inquiry-related consultancies	10	84 325
Corporate-support consultancies	4	58 370
Melbourne relocation	14	110 361

Table T14
Major consultancy services, 1992–93

Consultants	*Cost ($)*	*Purpose*
Corporate support consultancies		
Burson-Marsteller Pty Ltd	10 544	Communication / Marketing strategy
Coopers & Lybrand	15 000	Impact of IC reports
Employee Assistance Service ACT	10 000	Employee Assistance Program
Coopers & Lybrand	22 826	Middle Management Training
Inquiry-related consultancies		
Centre for SA Economic Studies	10 000	Fiscal Policy Impact / Urban Settlement
RJ Nairn and Partners	5 270	Urban Settlement / Transport Data
CSIRO	16 300	Urban Density Maps / Reporting
Jaakko Pöyry	38 500	Cost Competitiveness of Forest Industry
Productivity Training Services	3 950	Team Building Training
Joe Flood	6 300	Housing Subsidies
Melbourne Relocation		
John Wertheimer and Company	3 500	Selection of Office Architect
John Wertheimer and Company	46 877	Office Accommodation Selection
Allied Pickfords Pty Ltd	3 400	Melbourne Storage Requirements
JJ Frith & Associates	3 000	Ergonomic Furniture Evaluation
BHP Information Technology	2 700	Melbourne IT Requirements
Informed Sources Pty Ltd	18 316	Cataloguing Services
P Ryan and Associates	4 223	Scribe services for Melbourne recruitment
T de Luca	3 966	Scribe services for Melbourne recruitment
Computer Power	5 862	Scribe services for Melbourne recruitment
Public Service Commission	7 838	Scribe services for Melbourne recruitment
Noelene Mueller & Associates	5 437	Melbourne coordinator services

Table T15
Financial summary, 1992–93 ($)

	Appropriation	*Actual excluding relocation costs*	*Actual Melbourne relocation costs*	*Actual Total*
EXPENDITURE ITEMS				
Running costs				
Salaries and allowances				
- other than SES salaries[a]	9 693 000	8 507 215	528 351	9 035 566
- SES salaries	1 508 000	1 359 964	59 748	1 419 712
Administrative expenses	6 874 468	3 744 353	1 633 345	5 377 698
Legal expenses	42 000	13 381	0	13 381
Property operating expenses				
- current	2 326 000	2 024 343	234 321	2 258 664
- capital	1 085 000	3 090	76 345	79 435
Total running costs	**21 528 468**	**15 652 346**	**2 532 110**	**18 184 456**
IMPACT Project	246 000	120 000	0	120 000
Economy Wide Modelling Project	206 000	206 000	0	206 000
Total expenditure	**21 980 468**	**15 978 346**	**2 532 110**	**18 510 456**
RECEIPT ITEMS				
Section 35 receipts account	(117 000)	(162 468)	0	(162 468)
Miscellaneous receipts account	(77 000)	(82 811)	0	(82 811)
Total receipts	**(194 000)**	**(245 279)**	**0**	**(245 279)**
TRUST FUND				
Services for other governments and non-departmental bodies				
Cash balance at 1 July 1992		(1 785)	0	(1 785)
Receipts		(1 231)	0	(1 231)
Expenditure		1 575	0	1 575
Cash balance at 30 June 1993		(1 440)	0	(1 440)

a Includes Holders of Public Office.
Note Figures in brackets represent receipts.

There was a significant underspend during 1992–93 mainly due to relocation related expenditure being delayed until 1993–94. Savings achieved in other Commission activities (inquiry related and salary savings) resulted in a carryover of around 5.5 per cent of running costs.

Fraud control

The Commission's fraud-control strategy covers the design, development and maintenance of financial, administrative and operational systems and methods which include appropriate internal controls and audit trails. It places particular emphasis on prevention and ethical behaviour. The Commission assesses its level of risk to be minimal. Nevertheless, the Commission will continue to monitor its level of risk and review its procedures as necessary.

All aspects of the Commission's activities are accessible to the Australian National Audit Office for independent examination and report to Parliament. Each instance of loss to the Commission is assessed as to the possibility of fraud before write-off action is recommended.

No instances of fraud were identified during 1992–93. However, the Commission (along with some other Government departments) is assisting the Australian Federal Police with their investigation into the placing into liquidation of the company contracted to auction off surplus goods on behalf of AUSSALES. The potential loss to the Commission for items placed with AUSSALES and not accounted for (either goods not returned or proceeds of sales not yet received) is in the order of $11 000.

Purchasing

Each month the Commission gazettes all invitations to tender/purchase arrangements valued at $2000 or more. On no occasion has the Commission failed to gazette such invitations within three months.

Information technology purchasing arrangements

The Commission continues to adhere to the purchasing policy for information technology as outlined in the Commonwealth Procurement

Policy Framework, 1989. Significant information technology acquisitions during 1992–93 involved:

- further upgrading of personal computers;
- the installation of a telecommunications link between the Canberra and interim Melbourne office; and
- the installation of a local area network in the interim Melbourne office.

The Commission also continues to pursue the purchase of GOSIP standards compliant information technology systems in order to migrate to supplier independent 'open' systems. During 1992–93, substantial progress towards this goal was achieved.

Payment of accounts

The Commission received a total of 2815 accounts during the 1992–93 financial year, not including direct purchases made using Australian Government Corporate Credit Cards. Its payment record was as follows:

- Paid prior to due date: 118
- Paid on or about due date: 2570
- Paid <30 days after due date: 84
- Paid 30+ days after due date: 10
- Claims not paid as of 30 June 1993: 33

Payments made in accordance with contractual agreements (or to achieve worthwhile discounts) have been taken as paid on the due date.

Claims and losses

There were no claims or losses resulting in a net cost of $10 000 or more during the financial year. However, as reported under 'Fraud control' the Commission faces a potential loss of about $11 000 for items placed with AUSSALES for sale and still not accounted for.

Property

Canberra

The Commission occupies premises, including a hearing room, in the Benjamin Office Complex in Belconnen. A re-measurement of the net lettable areas of the Benjamin complex carried out by Australian Property Group resulted in an increase of 153 sq m to the Commission's tenancy.

Contributions paid by Benjamin Offices tenants towards the Benjamin Offices cafeteria ceased from 1 July 1992, resulting in a saving for the Commission of $33 075.

Melbourne

World Trade Centre

The Commission's lease for the hearing room in the World Trade Centre was taken over by the Victorian State Police on 30 September 1992. This amounted to a saving of approximately $330 000 for the remainder of the lease term.

Rialto Towers, Level 37

On 23 September 1992, the Commission leased temporary accommodation in the Rialto Towers, for a period of 12 months. This area was to accommodate 36 officers who relocated to Melbourne during the first phase of the Commission's relocation. In May 1993, an additional 100 sq m were leased due to an increase in the first phase staff numbers.

Commission rental arrangements are summarised in Table T16.

Management issues

Establishment of the Commission in Melbourne

The Commission is proceeding with the Government's decision to locate the Head Office in Melbourne and retain an office in Canberra. More details are provided in the section on the Structure of the Commission at the beginning of this appendix and Chapter 2 of this Annual Report.

Senior officer remuneration package

As indicated in the 1991–92 Annual Report, the Commission has moved to give effect to the November 1991 Department of Industrial Relations directive on a package for senior officer remuneration. The package is made up of three components:

- senior officer allowance — an annual amount of $1500 (indexed to salary rises) payable in lieu of overtime is paid to Senior Officers Grades A and B (and equivalents). For the Senior Officers Grade C (and equivalents) the amount is $1000. The Commission pays this allowance fortnightly in conjunction with a senior officer's normal pay;
- senior officer work related expenses — an annual amount of $1500 payable in respect of expenses incurred by Senior Officers Grades A and B (and equivalents) and $1000 for Senior Officer Grades C (and equivalents) in the performance of their duties. The allowance covers

Table T16
Property rental arrangements

Location	*Description*	*Area*	*Cost ($)*
Canberra			
(a) Office Space:	Total Office space	6 083 sq m	1 848 680
	Average office space for each occupant	30.9 sq m	
(b) Non-office space:	Hearing room	263 sq m	64 435
	Storage	413 sq m	28 910
	22 car park bays		22 000
Melbourne			
Rialto Towers			
(a) Office space:	Total office space	841 sq m	236 202
	Average office space for each occupant	19.6 sq m	
(b) Non-office space:	6 car park bays		5 439
World Trade Centre			
Non-office space	Hearing room	550 sq m	43 077

a Equivalent to rent and outgoings of $304 per square metre.
b Rent only.
c Equivalent to rent and outgoings of $281 per square metre.

reimbursement for items such as representational clothing, telephone rental and some calls, newspapers, memberships of certain clubs and associations, child care expenses, purchase of home computers and the like where the claims are supported by appropriate receipts; and

- performance based pay — an annual amount up to $8 000 for Senior Officers Grade A and B (and equivalents) and up to $3 000 for Senior Officers Grade C (and equivalents) based on their performance against agreed performance contracts.

Performance appraisal and pay

Performance appraisal

During the year the Commission negotiated the detail of an agreement with appropriate staff association representatives for the application of performance-based pay to the performance appraisal scheme that had applied to all Senior Officer Grades and equivalents during 1991–92. A broadly similar scheme applying to all other officers below the Senior Officer range was continued, although no formal ratings are determined and no performance-based pay was attached to this scheme.

The Senior Officer scheme obliges officers to enter into a performance agreement with their supervisor and to undergo performance appraisals at six monthly intervals to determine their level of performance and the rate of performance pay. For those below the Senior Officer grades, a work plan is drawn up and appraisals are also undertaken at six monthly intervals.

Both schemes are seen by Commission management as providing a mechanism whereby staff and their supervisors can agree on the work to be completed in the timeframe of the performance contract or the work plan. The appraisals provide the opportunity for structured feedback on performance and separate discussions are held to agree on any training and development needs identified in the appraisal process.

The Senior Officer scheme has been endorsed by the Public Service Commissioner and the unions representing staff in the Commission. The overall operation of the scheme is currently under review and it is intended to survey staff at all levels below the Senior Executive Service to gather their views on various aspects of their schemes to assess the schemes' effectiveness in their current format and to seek input for possible enhancements.

Performance-based pay

As the Commission had commenced its performance appraisal system during the 1991–92 financial year, Senior Officer grades first became eligible for performance-based pay during 1992–93. Senior officers were rated on a 1 to 5 scale on their achievement against their agreed performance contract. The ratings used indicated:

- 1 an inefficient officer not eligible for performance-based pay;
- 2 an adequate officer not eligible for performance-based pay;
- 3 a fully effective officer eligible for performance-based pay;
- 4 a superior officer eligible for performance based pay at the rate of one and a half times the amount paid to an officer achieving a 3 rating; and
- 5 an outstanding officer eligible for performance-based pay at the maximum amount payable depending on level — $8 000 for Senior Officer Grades A and B (and equivalents) and $3 000 for Senior Officers Grade C (and equivalents).

Distribution of the performance-based pay pool was made equitably so that officers who achieved the same rating received the same payment. Pro rata

Table T17
Performance-based pay ratings

	Rating			
	1&2	*3*	*4*	*5*
Percentage of officers who achieved rating				
Senior Officer Grades A&B	6.5	41.9	51.6	0
Senior Officer Grade C	10.8	64.9	23.3	0
Overall	**8.8**	**54.4**	**36.8**	**0**
Amount payable for 12 Month period ($)				
Senior Officer Grades A&B	0	3592	5388	na
Senior Officer Grade C	0	1510	2265	na

payments were made where a Senior Officer had worked the minimum 3 months to establish eligibility for payment but had not completed a full 12 months.

Because of an agreement between management and staff to distribute the whole performance-based pay pool in a ratio of 1 to 1.5 to 2 based on achievement of a 3, 4 or 5 rating there were varying amounts for the different ratings. A total of $164 000 was distributed to 31 Senior Officers Grade A and B ($116 000) and 37 Senior Officers Grade C ($48 000). Table T17 shows the spread of ratings and the related dollar amounts.

Training

The Commission's payroll (including Holders of Public Office) was some $10.5 million, which generated a minimum training requirement of the order of $157 500 (1.5 per cent). The actual eligible training expenditure of $512 853 (excluding travel) reflects the Commission's continued strong commitment to training and development of its staff.

At the end of the financial year, staff in the Commission totalled 267 (including 37 inoperative staff). There were also nine Holders of Public Office (excluding part-time Associate Commissioners). The total number of person-days spent participating in eligible training programs during the year was 1311 and the total number of participants in eligible training activities was 255 (including those who left the Commission during the year). Of that number, 113 were women, 38 were from non-English speaking backgrounds and five were people with disabilities. Categories of eligible training included professional and technical development (including Studybank), people and performance management skills, presentation skills, media skills and middle management development.

Major training activities during the year included:

- People Management Skills — 24 Senior Executive Service (SES) officers and Commissioners attended a one-day training course designed to enhance their people management skills;
- Middle Management Development Program — three five-day residential courses were conducted during the year, attended by 42 staff within the Senior Officer Grade B to Administrative Officer Grade 5 range;

- Presentation Skills — 15 SES officers and Commissioners took part in a one-day presentation skills program designed to enhance their skills in the communication of reports;
- Programs for Inquiry staff — courses for enhancing the skills of inquiry staff included a half-day report writing course, a half-day program explaining financial statements and concepts, and a two-day residential team building exercise;
- Postgraduate Study Awards — three study awards this year for study at the Australian National University (one to a Senior Officer Grade C and two to Administrative Service Officers Grade 5).

Thirty-two staff were approved for part-time study under the Commission's Studybank Scheme. Of that number, six were studying for their first degree and the remainder for their second degree or certificate.

During the Commission's transition to a two office structure, there will be increased emphasis on senior and middle management skills, team building and communications training.

Staff opinion survey

In last year's report, the Commission included a segment on the conduct of a staff opinion survey. These surveys have been conducted in 1990 and 1992 with the next survey due for 1994. The Commission's management believes that these surveys offer an important mechanism for staff to provide feedback on their level of satisfaction with various aspects of the running of the Commission. The Australian Bureau of Statistics conducts the surveys on a consultancy basis.

Any issues identified are discussed by the Management Committee, and appropriate follow-up action is taken. Following the 1992 survey, issues requiring management action were considered by senior management at their two-day planning seminar.

Industrial democracy

The Consultative Council is the Commission's formal consultative mechanism for industrial democracy.

The Consultative Council met twice during 1992–93. Issues considered at the meetings included:

- policy papers on industrial democracy, occupational health and safety, equal employment opportunity and performance appraisal; and
- moderating processes for the Senior Officer performance appraisal scheme, work place bargaining, occupational health and safety practices, the Commission's post-graduate Awards and the inclusion of Melbourne representatives on the expanded National Consultative Committee.

Equal employment opportunity

The Commission has worked closely with the Public Service Commission and staff association representatives to finalise an Equal Employment Opportunity Plan to cover the 1993–96 period. The Public Service Commissioner approved the Plan on 8 August 1993. A policy on discrimination and harassment was published during the year and work has commenced to include a new selection criterion for staff appointment and promotion relating to awareness and understanding of government policies on equal employment opportunity, industrial democracy and occupational health and safety.

The Commission's Head of Office, an SES Band 3 position, is the Senior Executive with responsibility for equal employment opportunity (SEREEO). An Administrative Officer Class 5 has day-to-day operational responsibility for handling any matters that arise. There was no variation to the allocation of resources during 1992–93 from the previous year.

The Commission's National Consultative Council provides the forum for discussing equal employment opportunity issues raised by management and staff.

Occupational health and safety

The Commission's Policy on Occupational Health and Safety was endorsed by the Public Sector Union at the National Consultative Council meeting on 28 May 1993. A specific OH&S Committee will be established during 1993–94 to report to the regular meetings of the National Consultative Council.

Specific initiatives implemented during 1992–93 were contracting the services of an ergonomist for the purchase of appropriate furniture and equipment for the permanent Melbourne office and selecting and training health and safety representatives.

No investigations were conducted during the year. No notices and directions relating to Clauses 30, 45, 46 and 47 of the *Occupational Health and Safety (Commonwealth Employment) Act 1990* were given to the Commission during the year.

Social justice (including access and equity)

The Commission's commitment to social justice is reflected in its mission statement. The Commission supports the concepts of equality of access and equity of outcome and participation by clients in decision making, doing so by widely publicising its program of inquiries into industries and seeking comment and input from a variety of stakeholders into its deliberations.

The published reports of the Commission incorporate the views of all interested parties and attempt to provide an equitable outcome for all Australians through the recommendations for action made to government. The Commission operates under the Treasury portfolio Access and Equity Plan and will continue to seek input from a wide cross-section of the Australian community to facilitate equitable access to policy development in recognition of our social justice obligations.

Employee assistance program

The Commission continued to provide an Employee Assistance Program (EAP) through the Employee Assistance Service ACT (EASACT) for all staff. Canberra-placed staff utilised the EASACT group and Melbourne-based staff utilised the services of an EASACT sub-contractor, the Occupational Assistance Service (OAS). In June 1993, EASACT advised the Commission that it had terminated its association with OAS and had replaced them with Davidson and Trahaire Pty Ltd, which will provide ongoing services.

The EAP provides independent, confidential professional counselling, consultation and training assistance to all staff and their immediate families with work-related and personal problems.

Status of women

As the Commission is a small organisation, it does not have a women's unit. However, mechanisms to promote the status of women are outlined in the Commission's equal employment opportunity policy and plan, staff selection guidelines and industrial democracy plan.

Of Commission staff, 45 per cent are women. Women occupy 17 per cent of Senior Executive Service positions, 19 per cent of Senior Officer Grade B (and equivalent) positions and 35 per cent of Senior Officer Grade C (and equivalent) positions.

External scrutiny

Reports by the Auditor-General

Audit Report No. 28 1992–93 — Report on Ministerial Portfolios Autumn Sittings 1993, and Audit Report No. 29 1992–93 — Aggregate and Departmental Financial Statements 1991–92 were the only audit reports which referred to the operation of the Commission.

Report No. 29 noted that the audit report of the Commission's Financial Statements for 1991–92 was unqualified and the result of the audit of the Commission's accounts and records was satisfactory.

Report No. 28 contains the report by the Australian National Audit Office on the audit of the Commission's Financial Management Information System (FMIS). The main findings were that the FMIS was used effectively to maintain the accounting records of the Commission; an improvement in the control of access to the system by staff would decrease the risk of improper account processing and fraud; and improvements needed to be made to the computing facilities to reduce the risk of unauthorised access to the FMIS. In response, the Commission has taken steps to restrict access to those parts of the FMIS required by staff for their work; and has made substantial improvements to the computing environment — in particular the replacement of the Local Area Network with a more secure network.

Freedom of information

The Commission did not receive any requests for information that were considered under the *Freedom of Information Act 1982* during 1992–93. The Freedom of Information Statement, required under section 8 of the Act, is at Attachment T3.

The Privacy Act

The Commission acts in accordance with the requirements of the *Privacy Act 1988* in respect of the collection, use and disclosure of personal information. Privacy contact officers have attended information sessions on changes to the Act.

The Commission was not investigated by the Privacy Commissioner for any reason during 1992–93.

Comments by the Ombudsman

There were no reports to the Commission made by the Ombudsman under the *Ombudsman Act 1976* during the year.

Table T18
Energy usage and associated costs, 1992–93

Electricity	*Units kwh ('000)*	*Cost ($'000)*
Canberra	122[a]	197
Melbourne	36	9
Fuel	*Units litres ('000)*	*Cost ($'000)*
Both locations	63	39

a Not a true indication of no. of kwh charged for by the building owner, because of the method of apportioning costs.

Impact monitoring

Business regulations

No regulations under the Industry Commission Act were made during the year. The Commission had no cause to exercise its power to compel participants in inquiries to provide evidence.

Environmental and conservation matters

Energy use and conservation

Electricity is the primary source of energy used by the Commission in both the Canberra and Melbourne offices. Office lighting, photocopiers and the personal computer network have been identified as contributing significantly to the Commission's overall energy consumption. The only other area of significant energy consumption relates to the provision of fuel for the Commission's fleet of 30 Commonwealth vehicles. Table T18 summarises the Commission's energy usage and associated costs.

The Commission is aware of the need to develop an energy management program and report on usage and improvements in energy efficiency. This reporting strategy will be developed in the new Melbourne and Canberra structures.

Buildings

To enable the Commission to monitor energy consumption and to ensure it pays only for the energy it uses, separate electricity meters were installed in the Canberra office during 1991–92 at a cost shared with Australian Estate Management (the building owner). To date, the building owner has avoided using the meter readings as a basis for charging and the Commission, along with other tenants, is still being charged according to the space occupied.

Transport

Twenty-nine of the Commission's vehicles are private plated and are leased from DASFLEET. Fuel is paid directly by the Commission using the Shellcard facility with the annual fuel consumption for 1992–93 being

62 684 litres. The other vehicle ('Z' plated) is on long-term hire from DASFLEET and fuel costs are included in the hire fee.

Of the Commission's vehicles, 25 have six-cylinder engines and five have four-cylinder engines.

Annual reporting requirements and aids to access

Information contained in this Annual Report on the Commission's operations is provided in accordance with subsections 25(6) and 25(7) of the *Public Service Act 1922*, section 74 of the *Occupational Health and Safety (Commonwealth Employment) Act 1990*, section 50AA of the *Audit Act 1901*, section 8 of the *Freedom of Information Act 1982*, and the *Privacy Act 1988*.

The entire report is provided in accordance with section 45 of the *Industry Commission Act 1989*.

The contact officer for inquiries or comments concerning this report is:

Assistant Commissioner
Corporate Services Branch
Industry Commission
PO Box 80
Belconnen ACT 2616
Telephone: (06) 264 3356

Inquiries about any Commission publication, including the corporate plan, the booklet on inquiry procedures, the Office of Regulation Review procedures and the graduate recruitment booklets can be made to:

Publications Officer
Industry Commission
PO Box 80
Belconnen ACT 2616
Telephone: (06) 264 3263
Facsimile: (06) 253 1999

T1 FINANCIAL STATEMENTS 1992–93

AUSTRALIAN NATIONAL AUDIT OFFICE

Centenary House
19 National Crt
Barton ACT 2600

our ref;

INDUSTRY COMMISSION
INDEPENDENT AUDIT REPORT

Scope

I have audited the financial statement of the Industry Commission for the year ended 30 June 1993.

The statement comprises:

- Statement by the Commission Chairperson and the Assistant Commissioner, Corporate Services Branch
- Operating Statement
- Statement of Assets and Liabilities
- Program Statement
- Statement of Transactions by Fund
- Statement of Cash Flows, and
- Notes to and forming part of the Financial Statement.

The Commission's Chairperson and Assistant Commissioner, Corporate Services Branch are responsible for the preparation and presentation of the financial statement and the information contained therein. I have conducted an independent audit of the financial statement in order to express an opinion on it.

The audit has been conducted in accordance with the Australian National Audit Office Auditing Standards, which incorporate the Australian Auditing Standards, to provide reasonable assurance as to whether the financial statement is free of material misstatement. Audit procedures included examination, on a test basis, of evidence supporting the amounts and other disclosures in the financial statement, and the evaluation of accounting policies and significant accounting estimates. These procedures have been undertaken to form an opinion whether, in all material respects, the financial statement is presented fairly in accordance with Australian accounting concepts and standards and statutory requirements so as to present a view of the Commission which is consisistent with my understanding of its financial position, its operations and its cash flows.

The audit opinion expressed in this report has been formed on the above basis.

GPO Box 707 Canberra Australian Capital Territory 2601 Telephone (06) 203 7300 Facsimile (06) 203 7777

Audit Opinion

In accordance with sub-section 51(1) of the *Audit Act 1901*, I now report that, in my opinion, the financial statement:

- is in agreement with the accounts and records kept in accordance with section 40 of the Audit Act

- is in accordance with the Financial Statements Guidelines for Departmental Secretaries (Accrual Reporting), and

- presents fairly in accordance with Statements of Accounting Concepts and applicable Accounting Standards the information required by the Guidelines including the Commission's and administered financial transactions and its cash flows for the year ended 30 June 1993 and the Commission's and administered assets and liabilities as at that date.

D. S. Lennie

D.S. Lennie
Executive Director

Canberra

12 October 1993

Industry Commission

OPERATING STATEMENT
for the year ended 30 June 1993

	Note	1993 $'000
COST OF SERVICES		
Operating expenses		
Employee expenses	2(a)	13 731
Other administrative expenses	2(a), 20	7 413
Total operating expenses		**21 144**
Operating revenues from independent sources		
Profit on sale of non-current assets		50
Section 35 resource agreement		97
Total operating revenues from independent sources		**147**
Net cost of services		**20 997**
REVENUES FROM GOVERNMENT		
Parliamentary appropriations used for:		
Ordinary annual services (a)	2(b)	18 022
Other services		326
Liabilities assumed by government	2(b)	1 645
Resources received free of charge	2(b)	9
Total revenues from government		**20 002**
Operating result		**(995)**
Accumulated operating results at 1 July 1992	13	(3 811)
Accumulated operating results at 30 June 1993	13	**(4 806)**

ADMINISTERED ITEMS		
Administered expenses		**nil**
Administered revenues		
Miscellaneous Receipts	2(c)	282
Total administered revenues		**282**

(a) Appropriation Act No. 1 excluding Section 35 receipts.

Statement by the Departmental Secretary

and

Principal Accounting Officer

Certification

We certify that the attached financial statements are in agreement with the Industry Commission's accounts and records and, in our opinion, the financial statements present fairly the information required by the Financial Statement Guidelines for Departmental Secretaries (Accrual Reporting) including the Commission's departmental and administered financial transactions for the year ended 30 June 1993 and departmental and administered assets and liabilities as at 30 June 1993.

Bill Scales.

Signed

Dated 11/10/93.

W I Scales
Chairperson

PW Thomas

Signed

Dated 11/10/93

P W Thomas
Assistant Commissioner
Corporate Services Branch

PROGRAM STATEMENT
for the year ended 30 June 1993

		Program 7 - Industry Commission
	Note	*1993*
		$'000
COST OF SERVICES		
Operating expenses	2(a), 20	21 144
Revenues from independent sources		147
Net cost of services		**20 997**
REVENUES FROM GOVERNMENT		
Parliamentary appropriations used for:		
Ordinary annual services (a)	2(b)	18 022
Other services		326
Liabilities assumed by government	2(b)	1 645
Resources received free of charge	2(b)	9
Total revenue from government		**20 002**
Operating result		**(995)**
ASSETS		1 685
LIABILITIES		6 490

ADMINISTERED ITEMS		
Expenses		nil
Revenues	2(c)	282
ASSETS		230
LIABILITIES		nil

STATEMENT OF ASSETS AND LIABILITIES

as at 30 June 1993

	Note	1993	1992
		$'000	*$'000*
CURRENT ASSETS			
Cash	5	57	31
Receivables	6	3	2
Inventories	7	nil	nil
Other	8	406	204
Total current assets		**466**	**237**
NON-CURRENT ASSETS			
Property, plant and equipment	9	1 219	1 283
Total non-current assets		**1 219**	**1 283**
Total assets		**1 685**	**1 519**
CURRENT LIABILITIES			
Creditors	10	357	237
Provisions	11	1 012	837
Other	12	666	517
Total current liabilities		**2 035**	**1 590**
NON-CURRENT LIABILITIES			
Provisions	11	4 456	3 740
Total non-current liabilities		**4 456**	**3 740**
Total liabilities		**6 490**	**5 330**
NET LIABILITIES	13	**4 806**	**3 811**

ADMINISTERED ITEMS			
Administered assets			
Receivables	6	230	31
Total administered assets		**230**	**31**
Administered liabilities		**nil**	**nil**

Industry Commission

STATEMENT OF CASH FLOWS
for the year ended 30 June 1993

	Note	*1993*
		$'000
CASH INFLOWS FROM OPERATING ACTIVITIES		
Inflows:		
Parliamentary Appropriations		18 348
Section 35 receipts		92
Total cash inflows		**18 440**
Outflows:		
Salaries and related expenditure		10 455
Administration and property		7 519
Total cash outflows		**17 974**
Net cash provided by operating activities	19	466
CASH INFLOWS FROM INVESTING ACTIVITIES		
Inflows:		
Disposal of non-current assets		70
Total cash inflows		**70**
Outflows:		
Purchase of non-current assets		510
Total cash outflows		**510**
Net cash used in investing activities		**(440)**
Net increase in cash		**26**
Cash at beginning of reporting period		31
Cash at end of reporting period		**57**

CASH FLOWS FROM ADMINISTERED TRANSACTIONS	
Cash inflows:	
Miscellaneous Receipts	83
Cash outflows:	**nil**
Net cash inflows from administered transactions	**83**

STATEMENT OF TRANSACTIONS BY FUND

for the year ended 30 June 1993

1991-92 Actual $		Note	1992-93 Budget $	1992-93 Actual $
	Consolidated Revenue Fund			
	RECEIPTS			
48 669	Miscellaneous		77 000	82 811
449 685	Section 35 of Audit Act 1901		88 000	162 468
498 354	**Total receipts**		**165 000**	**245 279**
	EXPENDITURE			
	Expenditure from annual appropriations:	16		
16 678 337	{Appropriation Act No. 1		21 980 468	18 510 456
	{Appropriation Act No. 5		-	-
100 000	Appropriation Act No. 2		-	-
16 778 337	**Total expenditure**		**21 980 468**	**18 510 456**
	Trust Fund			
	Trust Account (Commonwealth activities):	17		
9 806	Receipts		38 000	1 231
8 021	Expenditure		38 000	1 575
9 806	**Total receipts**		**38 000**	**1 231**
8 021	**Total expenditure**		**38 000**	**1 575**

Industry Commission

Notes to the financial statements
for the year ended 30 June 1993

Note 1 Summary of Significant Accounting Policies

(a) *Reporting entity*

The financial statements disclose information about all the resources controlled by the Commission. In this context resources controlled means those resources that the Commission is able to deploy to meet its objectives.

In addition, the Commission administers, but does not control, some resources on behalf of the Commonwealth. It is accountable for the transactions involving those administered resources, but does not have a discretion in relation to their deployment. For those resources, the Commission acts only as an agent of the Commonwealth.

The administered transactions and balances are disclosed as part of the relevant financial statements.

(b) *Basis of accounting*

The financial statements have been prepared in accordance with the *Financial Statement Guidelines for Departmental Secretaries (Accrual Reporting)* issued by the Minister for Finance which require compliance with Statements of Accounting Concepts and relevant Australian Accounting Standards.

The financial statements have been prepared on an accrual basis, are in accordance with the historical cost convention and do not take account of changing money values, except where stated.

(c) *Rounding*

Amounts have been rounded to the nearest $1 000 except in relation to the following items:

- Statement of Transactions by Fund
- Act of grace payments, waivers and write-offs
- Auditor's remuneration, and
- Remuneration of executives.

Totals are the rounded sums of unrounded figures.

(d) *Comparative figures*

Comparative figures for the year ending 30 June 1992 have been included for the Statement of Assets and Liabilities and the Statement of Transactions by Fund, and associated notes. Comparative information is provided in other notes where this information is readily available.

Where necessary and practicable, figures (as included in the 1992 Statement of Supplementary Financial Information) have been adjusted in value or reclassified to conform with changes in reporting requirements in the current year.

Adjustments to the values of such items were caused by a number of factors principally:

- the inclusion of all assets previously exempted under the *Financial Statement Guidelines for Departmental Secretaries (Modified Cash Reporting)*
- the depreciation of non-current assets ('catch up depreciation'), and
- the addition of all liabilities previously exempted (for example, employee entitlement provisions).

This accounting approach has overcome any potential distortion of current year information through the inclusion of material prior period adjustments in the Operating Statement. It is also consistent with GS3(1)(c) and AAS 1.

(e) *Employee entitlements*

All vesting employee entitlements (including annual leave and long service leave) are recognised as liabilities.

Long service leave is calculated having regard to the probability that long service leave will in the future either be taken or have to be paid. Long service leave has been calculated on this basis using probability factors against pro-rata entitlements calculated for all employees.

The amount charged to the Operating Statement is the amount of salaries paid while staff were on leave.

The determination of current and non-current portions is based on past history of payments.

(f) *Superannuation payments*

The liability for superannuation payments (other than the productivity contribution) is assumed by the Commonwealth. The notional value of employer contributions for the year is recorded as part of employee expenses and an equal amount is recorded as part of 'liabilities assumed by government' (revenue) in the Operating Statement. The amounts have been calculated as 17.9% of total salary and allowances for superannuation purposes of all CSS and PSS members employed by the Commission.

(g) *Taxation*

The Commission's activities are exempt from all forms of taxation except fringe benefits tax.

(h) *Foreign currency*

Transactions denominated in a foreign currency are converted at the exchange rate at the date of the transaction. Foreign currency receivables and payables are translated at the exchange rates current as at balance date.

Currency gains and losses are not recognised in the financial statements as the Department of Finance assumes responsibility for the Commission's foreign currency exposure. The net amount of such gains and losses is not considered material to the Commission's operations.

(i) *Prepayments*

Prepayments consist of amounts paid by the Commission in respect of goods and services that have not been received at 30 June 1993.

(j) *Asset capitalisation threshold*

Property, plant and equipment consist of items having an individual cost/value over $2 000. Items costing less than this amount are considered to be immaterial and their cost is expensed as incurred.

Inventories consist of goods or other property with an individual cost/value over $1 000 which are held as *consumable stores*. Items costing less than this amount are considered to be immaterial for reporting purposes and their cost is expensed as incurred.

Land and buildings does not include rented property which the Commission does not control. Property rental liabilities are disclosed in Note 15.

(k) *Valuation of non-current assets*

Non-current assets are valued at the cost of acquisition, less accumulated depreciation. Computer equipment includes computer software.

(l) *Depreciation of non-current assets*

All non-current assets having a limited useful life are systematically depreciated over their useful lives in a manner which reflects the consumption of the service potential embodied in those assets. Depreciation is provided for on a straight-line basis, using rates which are reviewed annually. Major depreciation periods are:

Asset Class	*Total useful life*
Land	not applicable
Buildings	not applicable
Plant	**10 years**
Furniture	**10 years**
Office equipment	**5 years**
Computer hardware	**3 years**

(m) *Creditors*

Creditors consist of amounts which were due to be paid by the Commission for goods and services received on or before 30 June 1993, but which were unpaid at that date.

(n) *Insurance*

In accordance with Government policy, assets are not insured, and losses are expensed as they are incurred.

(o) *Receivables*

A provision is raised for any doubtful debt based on a review of all outstanding accounts as at year end.

Bad debts are written-off during the year in which they are identified.

(p) *Resources received free of charge*

Resources received free of charge are recognised as revenue where the amounts can be reliably measured. Use of those resources is recognised as an expense.

(q) *Administered transactions*

All running costs are charged as Departmental expenses (including expenses directly related to administered assets).

Note 2 Items of expenses and revenues

The aggregate amounts shown in the Operating Statement and the Program Statement include the following classes of expenses and revenues:

(a) *Expenses - Departmental Items*

Provision for employee benefits

	1993	*1992*
	($'000)	*($'000)*
Long service leave and recreation leave	1 903	not avail.
Employer contribution for employee superannuation	1 645	not avail.
Performance pay (including lump sum superannuation contributions)	262	169

Other administrative expenses

	1993	*1992*
	($'000)	*($'000)*
Doubtful debt - Sale of non-current assets	3	nil
Provision for depreciation:		
- property, plant and equipment	554	not avail.

(b) *Revenues - Departmental Items*

Parliamentary appropriations

	1993	*1992*
	($'000)	*($'000)*
Unexpended Running Costs funds *carried-over* from the previous financial year in accordance with the agreed running cost arrangement with Department of Finance	386	408

Liabilities assumed by Government

	1993	*1992*
	($'000)	*($'000)*
Liability for employee superannuation	1 645	not avail.

Resources received free of charge

	1993	*1992*
	($'000)	*($'000)*
Accounting and budgetary services in the form of the computerised Finance ledger and payroll services provided by the Department of Finance	9	not avail.

(c) *Revenues - Administered Items*

Miscellaneous Receipts

	1993 ($'000)	*1992 ($'000)*
Sale of house purchased from staff	227	nil
Other receipts	55	not avail.
Total	**282**	

Note 3 Act of grace payments, waivers and write-offs

(a) *Act of grace payments*

	1993 ($)	*1992 ($)*
Payments made during the financial year in accordance with directions given under Section 34A(1) of the Audit Act 1901	nil	nil

(b) *Waiver of rights to payment of moneys*

	1993		*1992*	
	Number	*Amount ($)*	*Number*	*Amount ($)*
Amounts waived pursuant to subsection 70C of the Audit Act 1901	nil	nil	1	290
Amounts waived pursuant to other legislation	nil	nil	nil	nil

(c) *Amounts written-off*

	1993 ($)	*1992 ($)*
Amounts written-off under Section 70C(1) of the Audit Act 1901:		
(i) Losses or deficiencies of public moneys	nil	nil
(ii) Irrecoverable amounts of revenue	nil	nil
(iii) Irrecoverable debts and overpayments	nil	470
(iv) Amounts of revenue, debts, or overpayments, the recovery of which has been determined to be uneconomical	nil	nil
(v) The value of lost, deficient, condemned, unserviceable or obsolete stores	250	628
Amounts written-off under other legislation:	nil	nil

(d) *Losses and deficiencies etc in public moneys and other property*

	1993	*1992*
	($)	*($)*
Action taken during the financial year under Part XIIA of the Audit Act 1901	nil	nil

Note 4 Auditors' remuneration

	1993	*1992*
	($)	*($)*
Audit fees payable to the Australian National Audit Office (ANAO) for the audit of the Commission's financial statements	35 000 (est)	31 000

Note 5 Cash

The Commission held the following cash balances as at 30 June:

	1993	*1992*
	($'000)	*($'000)*
Cash Advances (Petty Cash, Travelling Allowance, Corporate Credit Card)	57	31
Collections of Public Moneys (CPM)	nil	nil
Total	**57**	**31**

The cash balances are represented by:

1991–92		*1992–93*
		Cash Advances
($'000)		*($'000)*
16	Cash on Hand	2
15	Cash at Bank	55
31	**Total**	**57**

The amounts shown above for *Cash Advances* and for *Cash at Bank* at 30 June 1993 include $15 000 held at the Reserve Bank to facilitate the settlement of the Commission's Australian Government Credit Card account with the Westpac Banking Corporation (1992 - $15 000).

Note 6 Receivables

(a) *Departmental Items*

As at 30 June, amounts in the following classes were due to be received by the Commission pursuant to an arrangement made under Section 35 of the Audit Act 1901:

	1993		*1992*
	($'000)	*($'000)*	*($'000)*
Industry Commission staff		..	1
Other departments		3	1
Trade debtors	3		
less Provision for Doubtful Debts	3	nil	1
Total		**3**	**2**

Of the total amount of $3 000 outstanding as at 30 June 1993, the following amounts were *overdue* (ie unpaid after 30 days from date of issue of the debit advice) for the periods shown below:

1991–92		*1992–93*		
		IC staff	*Other depts*	*Trade debtors*
($'000)		*($'000)*	*($'000)*	*($'000)*
..	Less than 30 days	..	3	nil
..	30-60 days	nil	nil	nil
1	More than 60 days	nil	nil	nil
2	**Total**	..	**3**	**nil**

(b) *Administered Items*

Amounts in the following classes were due to be received by the Commission for payment to the Commonwealth Public Account as at 30 June:

	1993	*1992*
	($'000)	*($'000)*
Industry Commission staff	1	nil
Other departments	nil	31
Trade debtors	229	nil
Total	**230**	**31**

The amount shown above for *Other debtors* includes $227 000 relating to the sale of a house in respect of which contracts had been signed at 30 June 1993, but had not been exchanged at that time. Refer to Notes 8 and 14 for further details concerning the acquisition and sale of these properties by the Commission.

Of the total amount of $230 000 outstanding as at 30 June 1993, the following amounts were *overdue* (ie unpaid after 30 days from date of issue of the debit advice) for the periods shown below:

1991–92		*1992–93*		
		IC staff	*Other depts*	*Trade debtors*
($'000)		*($'000)*	*($'000)*	*($'000)*
31	Less than 30 days	..	nil	nil
nil	30-60 days	..	nil	nil
nil	More than 60 days	nil	nil	nil
31	**Total**	..	**nil**	**nil**

All the receivables are expected to be fully recovered.

Note 7 Inventories

At 30 June 1993 the Commission did not hold any inventory items which had an individual cost/value over $1 000 (1992 - $nil).

Note 8 Other

	1993	*1992*
	($'000)	*($'000)*
Prepayments	241	204
Residential houses purchased from Industry Commission staff	164	nil
Total	**406**	**204**

During 1992–93 the Commission purchased two houses from staff who were compulsorily transferred to Melbourne as part of the Commission's re-location.

Contracts for the re-sale of one of the houses were signed, but not exchanged, at 30 June 1993. This transaction has therefore been recognised as an asset (Administered Items) and shown as *Receivables* (refer to Note 6).

As the Commission intends to re-sell the remaining house within 12 months of 30 June 1993, this property has been recognised as a current asset and shown as *Other*.

Refer also to Note 14 for additional information concerning the acquisition of these properties by the Commission.

Note 9 Property, plant and equipment

	1993 ($'000)	1992 ($'000)
(i) Land and buildings at cost	nil	nil
(ii) Leasehold improvements at cost	nil	nil
(iii) Computers, plant and equipment at cost	3 603	3 584
less accumulated depreciation	2 384	2 302
Net book value	**1 219**	**1 283**

Two houses purchased from staff have not been included above as these properties have been recognised as current assets. Refer also Notes 6, 8 and 14 for additional information concerning the acquisition and sale of these properties by the Commission.

A reconciliation of opening and closing balances is shown below:

	1993 *($'000)*	*1992* *($'000)*
Computers, plant and equipment		
Opening value 1 July 1992 (at cost)	3 584	2 744
add assets purchased during 1992-93 (at cost)	510	896
less assets disposed during 1992-93 (at cost)	492	56
Closing value 30 June 1993 (at cost)	**3 603**	**3 584**

Note 10 Creditors

The total amount owed to creditors at 30 June is as follows:

	1993 *($'000)*	*1992* *($'000)*
Trade creditors	322	236
Other creditors	35	2
Total	**357**	**237**

Note 11 Provision for employee entitlements

(a) *Current liabilities*

	1993	*1992*
	($'000)	*($'000)*
Annual leave (including leave bonus)	915	755
Long service leave	96	81
Total	**1 012**	**837**

(b) *Non-current liabilities*

	1993	*1992*
	($'000)	*($'000)*
Annual leave (including leave bonus)	708	584
Long service leave	3 748	3 156
Total	**4 456**	**3 740**

Note 12 Other

Amounts owed as employee entitlements are as follows:

	1993	*1992*
	($'000)	*($'000)*
Performance pay (including lump sum superannuation contributions)	261	169
Salaries and wages	404	348
Total	**666**	**517**

Note 13 Net liabilities

Accumulated operating results:

	1993	*1992*
	($'000)	*($'000)*
Net liabilities at 1 July	3 811	not avail.
Increase in net liabilities resulting from operations	995	not avail.
Net liabilities at 30 June	**4 806**	**3 811**

Note 14 Land held for sale or re-sale

During 1992-93 the Commission purchased two houses from staff compulsorily transferred to Melbourne as part of the re-location of the Commission. One house was subsequently re-sold before 30 June 1993. Refer also Notes 6 and 8 for additional information concerning the acquisition and sale of these properties by the Commission.

The following information relates to the remaining property held for re-sale:

	1993	*1992*
	($'000)	*($'000)*
Total cost of acquisition (exclusive of any surveys, roads and drainage and other developmental expenses)	164	nil
Total cost of developmental expenses capitalised	-	nil
Total amount of rates, taxes or interest and any other amounts capitalised	-	nil

Note 15 Commitments

The Commission has entered into the following commitments as at 30 June 1993:

1991-92		*Due for Payment* Not later than 1 year	1-2 years	2-5 years	Later than 5 years	Total
($'000)		*($'000)*	*($'000)*	*($'000)*	*($'000)*	*($'000)*
27	Capital expenditure	21	nil	nil	nil	21
16	Administrative expenses	3	nil	nil	nil	3
123	Contribution to the IMPACT project	372	246	123	nil	741
515	Contribution to economy-wide modelling at Monash University	206	103	nil	nil	309
6 717	Operating Leases	2 531	2 190	4 734	7 638	17 093

Note 16 Expenditure from annual appropriations

Details of appropriations and expenditures relating to each division, sub-division and item included in the total amounts shown for annual appropriations in the Statement of Transactions by Fund are as follows:

1991-92 *Actual* *($)*		*1992-93* *Appropriation* *($)*	*1992-93* *Actual* *($)*
	Appropriation Act Nos. 1, 3 and 5		
	Division 675 Industry Commission		
16 475 337	1. Running Costs (Annotated Appropriation)	21 528 468	18 184 456
	3. Other Services		
203 000	01. Contribution towards the further development of the IMPACT Project	246 000	120 000
nil	02. Contribution towards the development of economy-wide modelling at Monash University	206 000	206 000
16 678 337	**Total Appropriation Act Nos. 1, 3 and 5**	**21 980 468**	**18 510 456**
	Appropriation Act Nos. 2, 4 and 6		
	Division 981 Industry Commission		
	1. Other Services		
100 000	01. Contribution towards the development of economy-wide modelling at Monash University	nil	nil
100 000	**Total Appropriation Act Nos. 2, 4 and 6**	**nil**	**nil**

Note 17 Receipts and expenditure of the trust fund

This section discloses details of each Head of the Trust Fund and Trust Account for which the Commission is responsible.

The information shown provides a break-down of the information relating to the Trust Fund contained in the Statement of Transactions by Fund.

1991-92 Actual ($)		*1992-93 Actual ($)*
	Services for other governments and non-departmental bodies	
	Legal authority - Audit Act 1901	
	Purpose - Payment of costs in connection with services performed on behalf of other governments and non-departmental bodies	
	Receipts and expenditure -	
nil	Cash balance at 1 July 1992	1 785
9 806	Receipts	1 231
9 806		**3 016**
8 021	Expenditure	1 575
1 785	**Cash balance at 30 June 1993**	**1 440**

Transactions under the head of Trust relate to incapacity payments to current employees in accordance with determinations made, and funds issued, by COMCARE.

Note 18 Remuneration of executives

The amounts of fixed remuneration and performance pay received/receivable by all the Commission's executive officers are as follows:

	1993 Number
Fixed remuneration	
$100 000 to $110 000	1
$110 000 to $120 000	3
$120 000 to $130 000	1
$130 000 to $140 000	9
$150 000 to $160 000	1
Total fixed remuneration	**$1 638 550**
Performance pay	**$97 500**

Note 19 Cash reconciliation - Cash Flow Statement

A reconciliation of net cash provided by Operating Activities to operating result is shown below:

	1993
	($'000)
Operating result	(995)
Depreciation	554
Profit on sale of non-current assets	(50)
Increase in receivables	(1)
Increase in other (assets)	(201)
Increase in creditors	120
Increase in provisions	891
Increase in other (liabilities)	149
Total	**466**

Note 20 Other administrative expenses

	1993
	($'000)
Administrative expenses - current	4 390
Administrative expenses - capital	415
Legal services	13
Property operating expenses - current	2 189
Property operating expenses - capital	79
Contribution towards the further development of the IMPACT project	120
Contribution towards the development of economy-wide modelling at Monash University	206
Total	**7 413**

Note 21 Guarantees and undertakings

The Industry Commission had not given any guarantees or undertakings as at 30 June 1993.

Note 22 Contingent liabilities

The Industry Commission had no contingent liabilities at 30 June 1993.

T2 REPORTS AND PAPERS RELEASED BY THE COMMISSION IN 1992–93

Reports

25 *Intrastate aviation,* 17 July 1992.

26 *Water resources and waste water disposal,* 17 July 1992.

27 *Book production,* 15 October 1992.

28 *Mail, courier and parcel services,* 30 October 1992.

29 *Horticulture,* 18 February 1993.

30 *Taxation and financial policy impacts on urban settlement,* 7 April 1993.

31 *Port authority services and activities,* 31 May 1993.

Information/discussion papers

Pro-competitive regulation, November 1992.

Working papers

H. Plunkett, R. Wilson and S. Argy, *The measurement of effective rates of assistance in Australia,* July 1992.

T3 FREEDOM OF INFORMATION STATEMENT

The following information is provided as required under section 8 of the Freedom of Information Act.

The Commission

The Industry Commission was created under the *Industry Commission Act 1989*, with effect from 9 March 1990.

It consists of a Chairperson and full-time Commissioners appointed by the Governor-General, and Associate Commissioners appointed by the Minister, in accordance with the Act. Appointment is for a term not exceeding five years, or until the inquiry and report on a particular matter is completed.

Staff assisting the Commission are employed under the *Public Service Act 1922*.

The Commission maintains an office in both Melbourne and Canberra and a public hearing room in Canberra.

The Commission is required under its Act to conduct public inquiries on the industry matters referred to it by the Government. The Commission may inspect and copy relevant documents and summons persons to give evidence in the course of its inquiries, and such witnesses are protected under the Act from being subject to prejudicial treatment as a result of their giving evidence.

Categories of documents

The Commission releases draft reports for most inquiries, giving interested parties the opportunity to examine and comment on their content before reports are finalised and forwarded to the Government.

Documents for circulation within the Commission include, but are not restricted to, the monthly inquiry program (activities and information); office circulars relating to staff matters; the corporate plan; an inquiry procedures booklet; Office of Regulation Review procedures; graduate recruitment booklet; EEO, ID and OH&S circulars; an Employee Assistance Program booklet; Studybank and Post Graduate Study Award circulars; and an Access and Equity Booklet.

The Commission holds working documents relating to:

- administrative information on financial allocations and expenditure, staffing, internal audit, official travel, office accommodation, assets and stores;
- ministerial and general correspondence;
- records of meetings, discussions, interviews; and
- inquiry correspondence and public hearing material.

Current information circulars, issues papers and inquiry guidelines are sent to interested parties and inquiry participants, as well as being made available to the public free of charge, on request.

Access to the Commission's Register of Personal Information (as required by the Privacy Act) can be requested from the FOI contact officer.

Documents available for purchase at Commonwealth Government Bookshops include:

- the Commission's Annual Report to Parliament;
- reports on matters referred to the Industry Commission by the Minister; and
- reports on matters researched by the Commission.

Copies of submissions made to inquiries, excluding confidential material, can be purchased through the Xerox Copy Centre, PO Box 1154, Fyshwick, Canberra, ACT, 2609.

Transcripts of public hearings can be purchased from Spark and Cannon Pty Ltd, which has offices in Melbourne, Adelaide, Sydney, Brisbane and Perth.

Transcripts and submissions are available for perusal in the Commission's library in Canberra and can also be accessed through all State libraries.

Facilities for access

The Commission's documents may be inspected in the Commission's offices in Canberra between 9.00 am and 4.30 pm, Monday to Friday (excepting public holidays).

Information and written requests for access to Commission documents under the Freedom of Information Act can be made through:

The Director
Finance and Services Section
Industry Commission
PO Box 80
Belconnen ACT 2616
Telephone: (06) 264 3357

Decisions regarding requests for access to documents under section 23 of the Freedom of Information Act should be made at division or branch head level. An applicant who is not satisfied with a decision relating to the provision of access, or relating to the liability to pay a charge, may seek a review of the decision by applying to the Chairperson of the Commission within 28 days of receiving notice of the decision.

T4 REPORTING REQUIREMENTS

Index of reporting in compliance with the requirements for the preparation of annual reports

na not applicable

APPENDIX U
INQUIRY ACTIVITY AND REPORTS OF THE COMMISSION

The Commission's inquiry program embraces a wide range of industry and reform issues. This appendix documents the progress of inquiries — the terms of reference, principal issues and recommendations, and Government responses.

The inquiry program is the Commission's principal area of work. An inquiry is conducted in response to terms of reference sent by the relevant Government Minister.

Table U1 lists the progress of inquiry references that were active during 1992–93. Earlier inquiries are also included where some or all of the Commission's recommendations have yet to receive a Government response. This appendix updates the terms of reference, recommendations and Government responses to each inquiry where they have not been discussed in previous Annual Reports of the Commission. Within each relevant section, the inquiries are presented in the same order as they appear in Table U1.

Table U1 does not include reports which were completed by the Commission prior to 1991–92, but have not received a complete Government response. Where the Government has given a partial response, it has been reported in previous Annual Reports. The relevant inquiries are:

- Aids and appliances for people with disabilities (Report No. 3 signed 18.7.90);
- Recycling (Report No. 6 signed 22.2.91);
- Construction costs of major projects (Report No. 8 signed 11.3.91);
- Pulp and paper: bleaching and the environment (Report No. 1 signed 21.5.90);
- Interim report on paper recycling (Report No. 2 signed 21.5.90); and

Table U1
Stage of completion of references and government response to Commission reports

Date received	*Title*	*For terms of reference see*	*Stage of completion*	*For recommendations see*	*Government response*[a]
6.12.90	Availability of capital	AR 90/91	Report No. 18 signed 9.12.91	AR 91/92	no further response
6.12.90	Cost recovery for managing fisheries	AR 90/91	Report No. 17 signed 3.1.92	AR 91/92	page 557
6.12.90	Exports of health services	AR 90/91	Report No. 16 signed 5.12.91	AR 91/92	page 558
21.3.91	Australian sugar industry	AR 90/91	Report No. 19 signed 6.3.92	AR 91/92	page 558
8.4.91	Review of overseas export enhancement measures	AR 90/91	Report No. 22 signed 3.4.92	AR 91/92	no response
9.5.91	Raw material pricing for domestic use	AR 90/91	Report No. 21 signed 1.4.92	AR 91/92	no response
9.5.91	Commercial restrictions on exporting (including franchising)	AR 90/91	Report No. 23 signed 27.4.92	AR 91/92	no response
18.7.91	Water resources and waste water disposal	AR 90/91	Report No. 26 signed 17.7.92	page 512	no response
18.7.91	Intrastate aviation	AR 90/91	Report No. 25 signed 17.7.92	page 518	no response
30.10.91	Mail, courier and parcel services	AR 91/92	Report No. 28 signed 30.10.92	page 522	no response
30.10.91	National procurement development program	AR 91/92	Report No. 20 signed 31.3.92	AR 91/92	no response
21.11.91	Taxation and financial policy impacts on urban settlement	AR 91/92	Report No. 30 signed 7.4.93	page 526	no response

18.12.91 Australian Horticultural Corporation	AR 91/92	Report No. 24 signed 30.6.92	page 534	page 534
18.12.91 Horticulture	AR 91/92	Report No. 29 signed 18.2.93	page 534	page 542
19.3.92 Port authority services and activities	AR 91/92	Report No. 31 signed 31.5.93	page 543	no response
24.3.92 Book production	AR 91/92	Report No. 27 signed 15.10.92	page548	page 549
18.9.92 Environmental waste management equipment systems and services	page 549	Draft report released 12.5.93	na	na
18.9.92 Urban transport	page 551	Inquiry in progress	na	na
18.9.92 Adding further value to Australia's forest products	page 552	Draft report released 12.5.93	na	na
18.9.92 Impediments to regional industry adjustment	page 553	Inquiry in progress	na	na
5.11.92 Public housing	page 554	Draft report released 2.8.93	na	na
5.11.92 Workers' compensation in Australia	page 554	Draft report released 23.8.93	na	na
5.5.93 Petroleum industry	page 555	Inquiry in progress	na	na
23.6.93 Meat processing	page 556	Inquiry in progress	na	na

a As at 10 September 1993
na not applicable
AR Industry Commission Annual Report

- Statutory marketing arrangements for primary products (Report No. 10 signed 26.3.91).

Reports released during 1992–93

Water resources and waste water disposal

Report No. 26 released 23 September 1992

The Commission found that undercharging for water and waste water disposal has encouraged excessive demand for water services. This has contributed to premature augmentation of water supply systems and investments with little prospect of providing a worthwhile return to the community. Undercharging has also contributed to many water-related environmental problems.

The Commission considered that the pace of reform should be increased, with emphasis on pricing, cost recovery and greater accountability for service providers.

The Commission found that responsibility for water management and related environmental controls is typically fragmented. There is a variety of government departments and agencies, which are charged with unclear and conflicting objectives, and are insufficiently accountable for performance. This results in duplication of effort and, on occasion, the absence of effective controls. Commission recommendations included clearer specifications of responsibilities between the various service providers, clarification of regulatory functions, and the requirement that agencies prepare publicly-available corporate plans and annual reports.

Dealing with a range of water-related environmental problems poses major challenges. While pricing reforms will go a long way to promoting more judicious and thereby sustainable water use, other initiatives are required to ameliorate existing environmental problems. The Commission sought to promote more efficient and sustainable water use, accepting that a mix of market incentives and regulation is required.

Specifically, the Commission made the following recommendations.

fully funded by government, should be written down by capitalising the resulting on-going losses to the authority and deducting them from existing asset values. Similar adjustments to asset values should be made to account for poor investment decisions. The basis for adjustments to authorities' asset bases should be documented in their financial statements.

- When calculating capital charges, authorities' asset bases should include assets provided by developers or funded through developer charges. However, the rate of return earned on those assets should be refunded to customers in new sub-divisions in the form of lower access charges for water services.

The target real rate of return (RRR) for investments in urban WSD infrastructure should generally be 5 per cent. This target should be adjusted in the future if there is a significant change in the real long-term bond rate. If an authority can publicly demonstrate that a particular investment entails a significant element of risk, a higher rate of return should be sought.

Urban WSD authorities earning less than 5 per cent RRR, should progressively increase their rate of return, at a pace determined in negotiation with owner governments (and their regulatory authorities), until such time as the 5 per cent rate is achieved. The price increases necessary to achieve the agreed increase in the rate of return should be determined taking into account the scope for productivity improvements. An annual increase of 0.5 of a percentage point in an authority's RRR would be a useful starting point for these negotiations.

- The negotiated annual increase in an authority's charges should have regard to the need for improved cost recovery on existing assets, and the need to ensure that, for new investments, there is full cost recovery over the life of the asset systems in question.
- Once an authority has achieved 5 per cent RRR on its (adjusted) asset base, further price increases should be subject to a negotiated revenue cap.

Pricing of irrigation water and drainage

Public investment in new irrigation schemes should only proceed if the authority concerned can publicly demonstrate that demand for water will

Pricing of urban water services

Except where subsidisation of costs is an explicit government policy, investment in new urban water, sewerage and drainage (WSD) infrastructure should be premised on full cost recovery, including the designated rate of return on capital. The authority concerned should consider whether the willingness to pay of customers who will benefit would be sufficient to permit full cost recovery, if differential charges could be set for those customers.

Urban authorities should pursue full cost recovery on the provision of water through a two-part tariff, comprising an access charge plus a usage charge for each kilolitre of water supplied. The usage charge should be set to cover the costs of making additional water available, plus a loading to ration supply when capacity in the system is scarce. The access charge should be set so that, in total, the desired revenue yield is achieved over the life of an asset system.

WSD authorities should investigate the benefits and costs of seasonal water pricing arrangements and time-of-day pricing. The effects of seasonal pricing could be captured either through charges which vary over the year or through tiered usage charges.

WSD authorities should consider charging for sewerage services according to the percentage of water returned to the sewerage system.

WSD authorities which are faced with significant trade waste discharges should have in place charges based on the quantity and strength of the waste discharged.

Prices for urban WSD services should be sufficient to cover operating, maintenance, administration and depreciation costs and to provide the designated rate of return on the adjusted asset base. Where quantifiable and attributable, the costs of environmental damage associated with the use of these services should be reflected in prices.

- Some flexibility should be provided to authorities to increase their rates of return over time as usage of systems increases, subject to the requirement that they earn the designated rate over the life of asset systems.
- When calculating the rate of return component, the value of assets used to provide community service obligations (CSOs) which are not

support prices sufficient to fully cover costs, including a return on capital. The minimum RRR should be 5 per cent. A higher rate should apply if the project involves a significant degree of risk.

Prices for irrigation water supplied from existing bulk water systems should at least cover irrigators' share of the costs of operating and maintaining those systems, including dams and storages. For systems where demand for water is sufficiently strong, a return on capital should also be sought. Where quantifiable and attributable, the costs of environmental damage caused by irrigation should be reflected in prices.

- Irrigators' share of the full costs of refurbishments to existing bulk water supply systems, including a minimum 5 per cent real return on capital, should be factored into bulk water charges.

Bulk water suppliers should immediately increase the price of water to a commercial level. Depending on the strength of demand, this would require them to earn a real rate of return of between 0 and 5 per cent. For an interim period, prices charged to irrigators may need to be subsidised.

- The rate of price increases faced by irrigators, and the combination of price increases and cost reductions required to provide a commercial rate of return, should be determined by negotiations between governments and bulk water suppliers.
- Until such time as charges to irrigators are sufficient to provide commercial rates of return, the shortfalls in revenues should be directly funded by the owner government.

General pricing issues

WSD agencies should phase out property-based access charges for water and sewerage. In the longer term, access charges should be directly linked to the size of the connections provided.

CSOs imposed on water authorities should be directly funded in full by the government concerned.

The Australian Water Resources Council (AWRC) should formulate and disseminate guidelines for valuing CSOs in the water sector. Underlying these guidelines should be a valuation method which estimates the long-run avoidable cost of meeting the obligation, less the revenue received from beneficiaries.

Water agencies should generally value their assets for pricing purposes according to the AWRC's Modern Equivalent Asset methodology. However, if there is a need to write down asset values to account for unfunded CSOs or poor investment decisions, the resultant reduction in the earnings potential of the assets in question should be the basis for the revaluation.

- The AWRC should initiate discussions with the accounting profession and the relevant areas of government to secure any changes necessary to general accounting requirements.

Through the AWRC, water agencies should further investigate the merits of renewals accounting in the Australian water sector.

Returns to equity earned on the provision of WSD services should be payable to the legal owners of the assets used to provide those services.

Institutional arrangements

Governments should ensure that providers of WSD services are commercially focussed. Responsibilities should be clearly set out; relationships between water management, service provision and regulatory functions clarified; and processes for resolving conflicts clearly defined.

Governments should establish clear lines of accountability for their WSD agencies and ensure that performance results are made publicly available.

All WSD agencies should be required to prepare publicly available corporate plans and annual reports, indicating commercial and other objectives. Any major changes to the corporate plan should be reported publicly.

All WSD agencies should submit to their relevant State body their achievements against an agreed list of performance indicators. This information should then be published by the AWRC.

WSD service providers should be free to use inputs offering the best value, whether they be in-house or external to the agency. Accounting systems should be modified, as required, to allow a comparison of the costs of acquiring inputs in-house or from outside contractors.

Governments should look for ways to realise economies of size in the provision of their country urban WSD services. In some cases this may warrant amalgamation of service providers.

Governments should consider corporatisation of WSD service providers on a case-by-case basis, to assess whether there are gains to be had beyond administrative reforms.

State Governments should ensure that Local Governments are accountable for stormwater and other run-off leaving their boundaries.

Management of public irrigation distribution systems should be devolved to regional bodies with a view to their privatisation. Transfer of ownership should occur before refurbishment of assets.

Tradeable water entitlements

Permanent water transfers should be introduced in all irrigation systems, for both groundwater and surface water. Where feasible, provision should be made to allow for permanent transfer of water between schemes.

Arrangements to allow the transfer of water from irrigation to other uses should be implemented in all States.

States should introduce continuous accounting within the release sharing system. In systems where security of supply is an issue, States should consider whether capacity sharing would provide a superior form of risk management.

Entitlements to any new water supplies should be auctioned and the scope for bulk water suppliers to act as brokers of existing supplies should be investigated.

Environmental matters

The States should formalise water entitlements for environmental purposes. Where systems are fully, or close to fully committed, water for the environment should be purchased from licence holders.

Governments should investigate the application of tradeable discharge permits.

Regulators, before setting standards, should undertake an assessment of benefits and costs, including an assessment of alternative technologies.

This process should explicitly canvass consumers' willingness to pay for improved environmental outcomes. Such analysis would be one input into a decision-making process which would also embrace issues of sustainability and intergenerational equity.

Environmental monitoring by an agency or authority other than the service provider is necessary to ensure that failures to meet standards are made public. Summary results of monitoring should be released in a form readily accessible to the media.

Government response

No response to the report has been announced as at 10 September 1993. Water is currently under consideration by the Council of Australian Governments (see Appendix N).

Intrastate aviation

Report No. 25 released 25 August 1992

The report concluded that, in general, the intrastate aviation sector was not performing to its full potential and that its development was being hampered by a number of factors subject to the control of Commonwealth, State and local governments.

The Commission found that aviation policy in New South Wales, Tasmania and, to a lesser extent, Western Australia, which continue to regulate intrastate aviation is out of step with the rest of Australia and with developments overseas. The report proposes that remaining State and Territory government regulation of intrastate aviation be dismantled, given that the costs outweigh the benefits. This would increase competitive pressures and create the incentive for operators to match the initiatives introduced elsewhere in Australia, to the benefit of airline passengers, many rural businesses, tourist operators and other users of intrastate air services.

Further benefits to all aviation users would flow from complementary Commonwealth reforms to improve the efficiency of the Federal Airports Corporation (FAC) and the Civil Aviation Authority (CAA). The Commission argued that, even though Australia's major airports and air navigation facilities are operated by corporatised bodies, there remains a number of weaknesses in the existing commercial arrangements. The report found that the efficiency of the FAC would be improved by modifying its pricing policies, so that, as far as practicable, all airports and airport activities pay their way. Further, some FAC airports should be leased or sold to local authorities or private interests. This would allow some competition to develop between airports and help ensure that the services provided by airports better match the needs of the communities they serve. Competition in aviation generally would be facilitated by greater provision of common-user terminals.

The Commission considered that the CAA (Australia's air safety regulator) also needs to change its pricing practices. Charges for air navigation services should take greater account of differences in the services provided in different regions and among various users. Cross subsidies between users should be eliminated and more closely reflect the cost of services. Allowing other organisations to compete with the CAA for the provision of air traffic control services at secondary airports would increase pressures to reduce the costs of air navigation.

The Commission also argued that airport performance would be enhanced, if State governments placed on a fully commercial basis all bodies under their control which operate airports.

Specifically, the Commission made the following findings and recommendations:

- the Commission considered that the major factor subject to influence by governments in Australia which leads to inefficient resource use in intrastate aviation is the economic regulation that continues to apply in some states; and
- the institutional arrangements and operations of some government instrumentalities engaged in the provision of airport infrastructure, safety regulation and air navigation services, impair the efficiency with which such services are provided, as well as the efficiency of aircraft operators and aviation users generally.

Removing regulation

To improve the efficiency of intrastate aviation services, the Commission considered that, in those States where intrastate aviation remains subject to economic regulation (namely Tasmania, New South Wales, Western Australia and, to a minor extent, Queensland), each government should:

- repeal all economic regulation of intrastate aviation by 31 December 1993, after giving 12 months notice; and
- where necessary, support the provision of services deemed essential by direct government subsidy. The operator and the extent of the subsidy should be decided by a tender process and relate to a specified period of not longer than three years.

Improving airport services

To improve the efficiency with which airport infrastructure and related services are provided by the FAC:

- the real rate of return target should be based on earnings before interest and tax, and relate only to assets which are necessary to allow it to perform its functions efficiently;
- the value of airport land and other assets should reflect the greater of either the value of assets in their current use or their highest value alternative use (less appropriate development costs and an allowance for risk);
- the Corporation should be fully compensated by means of direct payments for complying with ministerial directions, including matters 'in accordance with government policy';
- consideration should be given to separating the responsibility for the administration of aviation policy and responsibility for the performance of the FAC;
- some smaller FAC airports should be leased or sold to State government or private interests;
- each airport should, over time, recover all costs and meet a real rate of return target;
- under-recovery of aeronautical services should, as far as practicable, be eliminated;
- the peak and shoulder period surcharges that apply at Kingsford Smith Airport should be reviewed, preferably by an independent body, to ascertain whether surcharges are necessary to alleviate congestion and, if so, the appropriate level and time periods that should apply;

- all airport activity should be subject to the general provisions of the Trade Practices Act and the Prices Surveillance Act;
- weight-based landing charges should be extended to include those FAC airports where the administrative cost is small relative to total airport costs. At other airports, the existing general aviation infrastructure tariff should be replaced with an access fee that is airport specific and set at a level consistent with each airport recovering all costs and meeting a rate of return target; and
- common access facilities should, where viable, be provided at all major airport terminals.

To improve the efficiency with which airport infrastructure and related services are provided at non-FAC airports:

- the Commonwealth should expedite the transfer of ownership and full responsibility for the funding of airport operations to local authorities;
- State governments should place on a fully commercial basis all bodies under their control which operate airports. This would require that such bodies pay all taxes and, in lieu of paying Commonwealth taxes, an equivalent amount to State treasuries. They should also be required to meet a real rate of return target based on earnings, before interest and tax, on assets necessary to allow them to perform their functions efficiently, and remit dividends to State treasuries or, where relevant, to the appropriate local government authority; and
- all airport activity should be subject to the general provisions of the Trade Practices Act and the Prices Surveillance Act.

Improving safety and air navigation

To improve the efficiency of aviation safety and air navigation services provided by the CAA:

- the real rate of return target should be based on earnings before interest and tax, and relate only to assets which are necessary to allow it to perform its functions efficiently, including the provisions of safety-related services;
- subject to compliance with the appropriate regulations and standards, any organisation should be permitted to provide air traffic control services at Australian airports other than the six major capital city

airports, Cairns and Coolangatta. This arrangement should be reviewed within five years;

- charges should be modified so as to eliminate, as far as is practicable, cross-subsidisation between users and more closely reflect the cost of services provided to different groups of users;
- terminal navigation charges applying to aircraft powered by aviation gasoline at major capital city airports should be extended to include those airports where any extra administrative cost would be small relative to the Authority's airport costs;
- aviation gasoline aircraft used for agricultural purposes and any other aircraft readily identifiable as not requiring, or having access to, Civil Aviation Authority enroute services, should receive a rebate of that part of the excise on aviation gasoline attributed to the cost of providing enroute services; and
- general aviation aircraft operators should be permitted to pay for rescue and fire fighting services according to use.

Social and environmental consequences

The implementation of the Commission's recommendations would not result in any significant adverse social or environmental consequences. To the extent that deregulation may result in the termination of essential air services to some small communities, the provision of explicit government subsidies, as recommended, would adequately address such concerns.

Government response

No response to the report has been announced as at 10 September 1993. However, a review of FAC charges was recently completed by the PSA (see Appendix N).

Mail, courier and parcel services

Report No. 28 released 8 December 1992.

Mail, courier and parcel services provide essential links for the transfer of written communication and parcels around Australia, and between other countries and Australia. This report looked at options to improve the efficiency and quality of services provided by public and private sector operators. The basic issue in postal reform is the total cost of providing a letter service which meets customer needs. If the cost could be reduced by others providing letter services that were previously supplied by Australia Post, the Australian community as a whole would benefit.

Principal recommendations of the Commission's report included that the Government consider replacing the uniform postage rate for standard letters within Australia (now 45 cents) with a maximum affordable charge. This approach would remove rather than reduce the reserved services protection. This would generate additional benefits beyond the gradual reduction of protection because their size and the speed with which they are realised would be greater. Regardless of whether reserved services protection is retained or not, other organisations need to inter-connect with Australia Post's network. This should be allowed, under fair terms and conditions.

If the maximum charge objective were not immediately acceptable and the uniform charge were maintained, there would still be benefits to the community in increasing the competitive pressure on Australia Post by various means including reducing the minimum amount which other providers must charge to carry a letter to $1.20 from 1 January 1994, and then by 10 cents each year for 5 years.

Specifically, the Commission made the following recommendations.

Australia Post's performance

Australia Post no longer be subject to direction relating to general policies of the Commonwealth Government such as in borrowing, employment, and purchasing, and that Section 48 of its Act be repealed.

In order to establish productivity benchmarks, Australia Post offer through open tender the final sorting and delivery of mail from selected metropolitan post offices in each State, and have the successful tenderers undertake the tasks for a trial period of, say, two years. An evaluation of the outcome should be published promptly.

Urban post offices operate on the most cost-effective basis. This is likely to require that more official post offices be contracted out as agencies. These agencies should be stand-alone or in conjunction with other businesses, whichever is the more cost-effective.

Australia Post consult openly with a broad cross-section of the community about service requirements and well in advance about proposed changes in service standards. It should also ensure the public is well informed on its complaint handling procedures.

Australia Post publish in its Annual Report separate financial data for its reserved and non-reserved services.

Australia Post's annual fee for handling a private mail bag in the acceptance and delivery of mail at a roadside point be abolished for those households receiving less than three services a week.

Community service obligations (CSOs)

The Commonwealth Government more clearly specify and make public the extent of the CSOs it expects Australia Post to satisfy.

The costs incurred by Australia Post in meeting the CSOs under its Act be funded by direct budgetary payments.

Should Australia Post be required to provide services to meet other social objectives of governments, those services be made public and funded directly by the relevant government department (as occurs now with the Freepost service for the visually impaired).

Where roadside delivery is now only once a week, it be increased to at least twice a week.

The Commonwealth Government, in consultation with Australia Post, undertake a full and urgent assessment of the need for mail delivery services for those households not presently receiving a roadside delivery service.

The Commonwealth Government, in consultation with Australia Post, considers ways of improving the delivery frequency/costs guidelines for mail services in rural and remote areas.

International mail

Australia Post's exclusive right to carry letters between Australia and places outside Australia be withdrawn.

Australia Post should still be required to provide a service which connects with overseas postal administrations. It should be compensated by direct budgetary payment by the Commonwealth Government for consequent losses.

The Commonwealth Government, in consultation with Australia Post, seek modifications to terminal dues set by the Universal Postal Union to better reflect the cost of delivering mail in different countries.

Australia Post's charges for outgoing international mail be no more than the cost of collecting and sorting that mail in Australia (including an appropriate profit margin), plus the cost of line-haul to the destination, plus the terminal due.

Competition and structural reform

The Commonwealth Government continue to use Australia Post to meet its social objectives for the letter service.

The Commonwealth Government consider replacing its objective of providing the letter service at a uniform charge for standard letters with a maximum affordable charge for standard letters.

If the maximum charge objective were acceptable, the Commission would recommend:

- reserved services protection no longer be afforded to Australia Post from 1 January 1995; and
- the maximum charge for a standard letter be set initially equal to the uniform charge (currently 45 cents).

If the maximum charge objective were not immediately acceptable:

- reserved services protection continue to be afforded to Australia Post, but at a reduced level;
- the minimum amount which other providers must charge to carry a letter be reduced from 10 times the standard rate (that is $4.50) to $1.20 from 1 January 1994. This amount should be reduced by 10 cents each year thereafter for five years. There should be a review in 1997 to determine the system to apply from 1 January 2000;
- the weight limit for exceptions to reserved services be reduced from 500 to 250 grams from 1 January 1994; and
- Section 30 of the Australian Postal Corporation Act be amended to except the operation of document exchanges, the transfer of mail

within an organisation, and advertising material from the reserved services.

Inter-connection with Australia Post's network be allowed, under fair terms and conditions, at any point between sender and receiver up to the location of final sort before delivery to receiver.

Timetable for implementation

The Commission stated that its recommendations should be implemented quickly, so that the Australian community gets the benefits as soon as possible. However, because of the costs to Australia Post and private companies in adjusting to the new environment, it is not practicable to implement all of the Commission's recommendations immediately.

Government response

No response to the report has been announced as at 10 September 1993.

Taxation and financial policy impacts on urban settlement

Report No. 30 released 13 May 1993.

The efficiency of urban land use depends both on the costs involved (including social and environmental impacts) and the community's preferences. However, the complexity of this interaction precludes detailed prescription of what an efficient city should look like. Government policy would best be directed towards removing locational bias from urban choices. It should not unduly constrain choice.

The Commission found that the costs of providing urban infrastructure can vary greatly among locations in cities, and in many cases, are not adequately recovered from charges.

The Commission maintained that if resources are to be best utilised, agencies which provide services and people who use them need to know their full cost, but that this is not happening now. More cost-based charging would lead to better investment decisions by service suppliers and by homeseekers. Land would be used more efficiently, while the overall affordability of housing would not be unduly affected.

The Commission found that there is no 'right' answer in the debate about urban consolidation versus fringe development. In attempting to assess whether public infrastructure charging encourages expansion of settlement at the urban fringe, the Commission found that, for most categories of infrastructure, the detailed information needed for a definitive analysis is not available.

Similarly, no 'right' answer was found to the question of medium versus lower density developments with costs being very site-specific. The essential efficiency criteria in both of these cases is that decisions reflect not only benefits to households, but also costs — including environmental effects — and are not distorted by taxes and subsidies.

The Commission identified some taxes which interfere with the efficient use of land within cities. In particular, stamp duties on transfers on real estate are a tax on mobility — they are a disincentive to owner-occupiers changing dwellings as their needs change. They also reduce the affordability of housing, despite the exemptions and concessions to first home buyers.

The Commission considered large amounts of taxpayers funds have been spent by government agencies in holding and developing residential and other land. The arguments for government involvement in land development, and claims about the benefits achieved, are unconvincing. The Commission recommended a detailed evaluation of these activities.

The Commission recommended that particular locations should not be subsidised for welfare or equity purposes, whether directly or by manipulating prices charged for urban services. It is far more effective to direct assistance from general revenues to those people who meet target specifications.

Specifically, the Commission made the following findings and recommendations.

Efficient land use

The efficiency of urban land use depends both on the costs involved (including social and environmental impacts) and the community's preferences. The complexity of this interaction precludes detailed prescription of what an efficient city should look like.

Government policy would best be directed towards removing locational bias from urban choices. It should not unduly constrain choice.

Information on land use patterns and the area devoted to different land uses within cities is poor and needs to be improved by land use planning and coordination agencies. The cost is likely to be modest.

Costs of infrastructure provision

The costs of infrastructure provision, including environmental side effects, vary greatly among locations in cities.

Infrastructure costs per dwelling generally decline as on-site density of development increases. The extent of cost savings is very site- and service-specific.

Efficient charging for urban infrastructure

Charges should, wherever possible, reflect any significant locational differences in the costs of providing urban infrastructure. Where they cannot do so, they should at least seek to avoid systematic locational bias.

While it is not necessary to charge explicitly for costs that are common to all developments to transmit efficient location incentives within cities, cost recovery is desirable for reasons of efficient resource management and decision making in relation to the provision of new infrastructure.

Because efficiency in pricing has more than one dimension, it will usually be necessary to employ a number of charging instruments simultaneously. Developer charges are well-suited to reflecting variations in costs by location and, in some respects, may be preferred to periodic access charges for that purpose. Charges for use are probably best matched with marginal costs of supplying the service (including congestion costs, broadly defined).

Where there is genuine excess capacity, it is important that use of it not be discouraged by prices that exceed the costs of supply. New (and existing) users should be charged at levels that ensure that capacity is appropriately used.

Present methods of charging for infrastructure services are often not sufficiently reflective of locational cost differences. There is too much reliance on averaging or uniformity in all forms of charging. In addition:

- property values have no necessary relationship to costs of providing urban services such as water and sewerage, and the practice of using them as a basis for charging should end; and
- road authorities should be allowed to levy clearly identified charges on developers to cover the costs of providing and improving higher level roads attributable to new developments.

In attempting to assess whether public infrastructure charging encourages expansion of settlement at the urban fringe, the Commission found:

- for most categories of infrastructure, the detailed information needed for a definitive analysis is not available;
- in the one case — hydraulic services — where available data permitted a quantitative assessment for Melbourne and Sydney, the existence of a significant inducement to fringe location was not confirmed; and
- in most other cases, when all relevant factors are considered, it is difficult to judge whether net subsidisation of the urban fringe is likely, let alone the magnitudes involved. What is clear is that assessments which do not properly account for subsidies to established urban areas will generally overstate any inducement to fringe location, especially for social infrastructure.

Lack of information is a fundamental obstacle to reform of infrastructure charging and better asset management. Public sector providers of urban services should be required to compile and publish annually the costs, revenues and charging structures associated with development in different areas within their administration. Information is also urgently needed on the value and condition of existing infrastructure throughout the cities.

Impacts of charging reforms

While the incidence of developer charges and other contributions at any particular time will depend on the characteristics of the market, it is most likely in the longer term, that they will fall on purchasers of developed land.

In principle the timing of charges should make little difference to the burden of finance; in practice it may do so because of mechanical lending rules used by banks, the uncertainty created by the potential for public authorities to alter future charges, and government guarantees on the borrowings of public authorities.

Statistical analysis conducted by the Commission suggests that the consumption of urban land in aggregate is not very responsive to changes in its price (and hence, to changes in infrastructure charges). However, this does not preclude changes occurring in the *pattern* of land use within cities, as illustrated by additional modelling undertaken by the Commission. Eventual impacts would depend upon the flexibility of land use restrictions and adjustment costs.

The mix of people's income levels, household types and ages in the different parts of major cities suggests that the effects of reforms which led to higher charges would not fall disproportionately on any identifiable community group.

The provision of subsidised urban infrastructure, or concessional charging for it, is not an efficient means of meeting equity objectives. Practical measures to shield deserving categories of people from hardship are better directed to them as people, rather than to the areas where they are thought to live, or to the city-wide networks of urban services they use.

Charges for existing households should be examined as part of any reform of pricing structures. It would be equitable for established residents to at least face charges that matched the cost of replacing infrastructure required to service them.

Institutional and regulatory reform

Undue constraints on the ability of infrastructure providers to differentiate their charges in line with costs should be removed:

- governments should maintain an arm's-length relationship with their business enterprises and not seek to direct their general pricing structures away from commercial criteria: community service obligations can and should be identified and fully funded from general government revenues; and
- the possibility of using contracts or legislation to govern the provision of services to residents of particular areas in exchange for a set of charges that relates to the capital and recurrent costs of servicing that area only should be examined.

Impediments to public authorities, particularly infrastructure providers, entering into and enforcing contractual arrangements should be removed.

Regulations restricting the provision of urban services on-site by households should be subject to greater public scrutiny, and made more performance-oriented, and less prescriptive.

Urban transport is inhibited by a web of regulation. It includes monopoly route allocation for buses, and restriction of entry to the taxi industry. Because so much of the travel undertaken at the urban fringe requires route flexibility, this kind of restriction constitutes a penalty to fringe settlement as well as leading to increased private car ownership and use.

Taxes on housing and land

Stamp duty on real estate transactions is a disincentive to owner occupiers changing dwellings as their needs change, as well as reducing the affordability of housing.

In principle, a tax on land, applied universally at the same rate, would have little effect on land use. However, current land tax regimes are distorting, because of the various exemptions and concessions given.

The exemption of owner-occupied housing from capital gains taxation, and the non-taxation of rents attributable to owner-occupation, encourage more investment in housing and larger land holdings for dwellings than would otherwise occur.

Investment in infrastructure

Section 51AD and division 16D of the Income Tax Assessment Act are intended to restrict the ability of private providers of infrastructure to obtain tax benefits associated with depreciation of assets under the control of tax-exempt bodies. The criteria for applying these provisions in practice remain unclear and a review is warranted to examine whether more explicit guidance could be given.

Fiscal equalisation and the Commonwealth Grants Commission

It is not clear if Australia's system of fiscal equalisation is a significant influence on the pattern of settlement *within* cities, given the many other influences at work.

Fiscal equalisation among and within the States provides the capacity to subsidise high cost locations. When grants compensate States or local councils which provide urban services to high cost locations, they obscure the relative costs of settlement in those locations and can distort the basis of efficient decision-making. Any review of Commonwealth Grants Commission criteria should address this issue.

Local government

Using unimproved capital values as a rates base has the advantage that it does not unduly discourage site development.

Local governments should be:

- encouraged to make greater use of specific charges for services where the user can be separately identified. Charges should be set on the principle that those who generate costs, or benefit from council services, should be required to pay for them; and
- given greater scope for applying differential rates — irrespective of the rates base they use — so that they may make more use of selected targeting of charges.

State and local governments should undertake a critical review of the reasons why rates exemptions or concessions are accorded to particular groups, and the effects that such policies have. This review should start with the presumption that all land should be rateable. In those cases where it can be shown that this would cause undue difficulties, concessions could be phased out over several years.

Charging processes for development control are in need of reform. Councils should be free to set their own charges for services provided in the development control area, based on the costs incurred. In this way, developers and councils can more clearly ascertain what they are getting for services rendered and required.

Government participation in land markets

The Commission saw little potential for government land agencies to reduce the instability of land markets or to provide land at prices significantly below those which would prevail had the development been in private hands and subject to the same taxation treatment.

Interfering directly in the workings of the land market is an ineffective means of achieving social welfare objectives and provides no guarantee that target groups will be the main beneficiaries.

Much capital is tied up with the activities of government land developers. It is difficult to obtain a clear understanding of what performance criteria are used, and whether they are met.

The Commission recommended that all State or Territory governments which are engaged in land banking or other land development activities establish reviews to:

- determine, and publicly specify, which social objectives they seek to achieve;
- identify the nature and extent of the concessions that agencies receive through taxation and other means;
- assess and make public the rates of return on capital invested on the community's behalf; and
- evaluate alternative options by which government objectives might be met.

If direct government involvement in land markets is to continue, detailed performance criteria should be specified for the relevant agencies. These should include valuation methodologies for land assets, and the calculation of rates of return on assets. Procedures (including land sales mechanisms) should be fully transparent, with provision for regular review of the impact of such activities on the groups identified as needing assistance.

The housing construction industry

There were indications that applying commercial site employment conditions to medium-density building sites may add to costs as well as deterring smaller-scale builders from venturing into medium-density developments. This would reinforce the continuation of emphasis on detached cottages, and reduce the options available to home buyers.

Government response

No response to the report has been announced as at 10 September 1993.

The Australian Horticultural Corporation: effectiveness in increasing international competitiveness

Report No. 24 released 26 October 1992

As part of the Horticulture inquiry, the Government requested an interim report on the effectiveness of the Australian Horticultural Corporation (AHC). The Corporation was established in 1988 with the principal objective being to assist Australia's horticultural industries achieve their full potential in overseas markets.

The Commission found that many of the activities in which the AHC is engaged have the potential to be beneficial to Australian horticulture and are consistent with improving its international competitiveness. In particular, its activities in strategic planning, quality assurance certification, export promotion, market research, encouraging communication amongst participants, and negotiating freight rates have this potential. However, in view of the relatively short time during which the AHC has operated (it commenced operation in 1988) and the dated nature of the most recently available statistics, the Commission found little conclusive evidence that the AHC has been effective in increasing the international competitiveness of Australian horticulture.

The Commission proposed that Commonwealth funding of AHC activities be extended until 30 June 1994, pending consideration of the Commission's more general report on horticulture (Report No. 29).

Government response

This report is being considered by the Government in conjunction with the Commission's Horticulture report released in April 1993. The Government announced that Commonwealth funding for the AHC in 1993–94 would be $2.2 million (Dawkins and Willis 1993).

Horticulture

Report No. 29 released 2 April 1993

Horticulture comprises a wide range of products in the broad categories of fruit, vegetables, nuts, nursery products, cut flowers and turf which are grown in geographically diverse regions. Its value of production is about $3 billion, similar to beef, grains and wool. Because it is a collection of many industries with diverse characteristics rather than a single industry, the Commission did not attempt to make recommendations and findings which apply to many specific parts of it.

The report found this dynamic sector of the economy to be highly competitive with no major institutional or regulatory impediments to its continuing development. It sees a continuing role for the Australian Horticultural Corporation (AHC) as an agency to encourage an internationally competitive and export-oriented industry.

The Commission recommended, however, that individual horticultural industries be given greater control and flexibility over how their levy monies are spent. This would be achieved by doing away with the present requirement to channel levies through the AHC and would provide scope to disperse them through regional bodies.

The report also expressed concern about the proliferation of export assistance schemes, which, the Commission believed, could encourage 'double dipping'. This could fragment existing export efforts and be detrimental to established horticultural exporters.

Specifically, the Commission made the following findings and recommendations.

Land

The Commission was unable to identify any significant institutional or regulatory impediments to the efficient allocation of land for horticulture.

Labour

Horticulture is labour intensive and labour demands are seasonal. Small farm sizes help to curtail the need for hired labour.

Institutional arrangements which potentially influence labour markets in horticulture, particularly for seasonal work, are: the social security system; charges made by the Commonwealth Employment Service for registering temporary vacancies; and work visa arrangements for foreign visitors.

Capital

Capital markets in Australia are generally competitive. However, there is an anomaly in the taxation treatment of capital expenditure on establishing new horticultural plantations.

The Commission recommended that the taxation treatment of expenditure on new horticultural plantations be revised in a way which provides a more neutral treatment compared with expenditure on other activities.

Water pricing

The overall efficiency of resource use will improve if governments adopt the water industry reforms recently proposed by the Commission. Irrigation water is not a major cost component for Australian horticulture and growers have a variety of adjustment options.

Materials

Although Australian horticulture may face higher materials costs than its foreign competitors, the Commission did not identify any institutional or regulatory impediment to their provision at least cost, other than tariffs and these are being reduced.

Environmental costs

Australian horticulture is an intensive user of chemicals and water. Adverse environmental impacts should be addressed through market-based mechanisms wherever possible and, where not possible, the benefits of regulatory controls should be shown to exceed their costs.

Transport

Transport is a major factor in the cost of supplying horticultural products to both domestic and overseas markets.

Most horticultural products are moved within Australia by road. While road transport services are provided very competitively, governments have not ensured road use has been charged for efficiently. Although an advance, the reforms to take effect in 1993 will mean that some vehicles will bear higher registration charges than their mass and distance travelled indicate are necessary to achieve efficient road use.

All levels of government need to press on with reforming Australia's domestic shipping, rail and air transport systems. With one exception, the Commission did not identify any significant institutional or regulatory impediments in those systems which affect Australian horticulture. It was difficult on efficiency grounds to support selective compensation for the disadvantages Tasmania faces as a result of Australia largely reserving the coastal trades for locally controlled and crewed vessels.

The relatively small volumes and consignments of horticultural exports preclude the use of cheaper sea and air transport options and result in a reliance on conference shipping and scheduled international passenger services. Institutional and regulatory impediments arising from the waterfront, ports and conference shipping, and air transport, are currently being addressed in a number of forums.

Statutory marketing arrangements

The Commission re-iterated its previous finding that statutory marketing arrangements which depend on compulsory acquisition, production control and pricing adversely affect the overall efficiency of resource use. The two areas identified in this report for reform are dried vine fruits marketing arrangements and the activities of the Western Australian Potato Marketing Board .

Competition policy

The Commission re-iterated its previous finding that there is no justification for the blanket trade practices prohibition on authorising voluntary recommended price agreements between fewer than 50 parties — assessment should be undertaken case-by-case.

Quarantine

Consistent with a previous Industries Assistance Commission recommendation, the Commission supported the development by the Commonwealth Government, with the States and Territories, of consistent risk assessment procedures for interstate and intrastate quarantine controls.

In seeking to negotiate fairer access to overseas markets for Australian products, it is vital that Australian quarantine barriers are themselves able to withstand scrutiny.

Food standards and labelling

The Commission supported the principle that food standards and labelling requirements be set to exclude only those products which threaten the health and safety of consumers.

Tariffs

The Commission saw no reason to depart from the current tariff phasing arrangements for horticultural products.

Anti-dumping measures

The Commission did not see any grounds for introducing anti-dumping arrangements for processed horticultural products which are not available to other industries. For fresh horticultural products there seems to be no practicable way for countering dumping within the existing GATT framework; however, dumping does not appear to occur on a significant scale.

Export incentives

Horticulture has been a major user of a proliferating range of export assistance programs. Export assistance programs are selective in their nature and bias investment decisions. The increasing range of the schemes provides scope for exporters to obtain assistance simultaneously from a number of schemes, and their discriminatory nature can be detrimental to existing exporters. As they presently operate, some of the schemes available to horticulture fragment existing export efforts. An adequate review of these programs cannot be undertaken in the absence of information about their use.

The Commission recommended that the Horticultural Policy Council establish an information base about all export assistance provided to horticulture. The information should include the amount of assistance provided to particular industries, the nature of firms receiving assistance from each program over the past five years, and activities covered by the assistance.

AHC's policy of dealing with industries only through a national peak grower body.

Industry levies

The Commission recommended that:

- where a compulsory statutory levy is paid by a horticultural industry, levy funds for programs requested by that industry be paid directly to the industry;
- there be no obligation for industries to use levy funds paid to them to engage the services of the AHC;
- industry levy funds be devolvable to sub-industry bodies;
- purposes for which levy funds can be spent by defined by statute; and
- industry bodies be permitted to use industry levy funds paid to them for research and development.

Export licensing and trading powers

The Commission recommended that the AHC's trading powers be removed.

The Commission also recommended that from 1 July 1995:

- export licensing be applied to a market only with the specific authorisation of the Minister in each case, and only when necessary to meet the requirements of an importing country and for premiums to be extracted through the exercise of market power;
- licenses be allocated by competitive bidding; and
- exporters be otherwise free to sell exports by whatever method they see fit, including consignment selling.

Funding

The Commission was of the view that funding should be provided to the AHC from the Government for activities which are undertaken on the basis of national interest rather on the basis of being requested by industry. All other activities of the AHC should be funded by industry.

The Commission recommended that:

- the AHC provide services requested by industry on a fee-for-service basis;
- Government funding continue to be available to support activities undertaken by the AHC on the basis of national interest;
- should the Government require levy paying industries to contribute to the cost of the AHC's national interest programs, such contributions be linked to the gross value of production for those industries; and
- Commonwealth funds not be made available for domestic promotion or product-specific export promotion.

The Australian Quarantine and Inspection Service (AQIS)

The Commission recognised that substantial reform of quarantine and inspection services had been achieved by AQIS. That was a process which must continue, as recognised by the options for further reform circulated for discussion by AQIS in November 1992.

Three concerns raised in this inquiry on which the Commission made recommendations related to market access negotiations, charges to AQIS services, and allowing competition in the provision of services currently provided by AQIS.

The Commission recommended that a mechanism be established, through the Market Access Committee, so that horticultural industry representatives have a greater involvement in market access negotiations with a view to ensuring practicable outcomes.

The Commission also recommended that, to encourage more efficient use of its services, AQIS better align its charges with the costs of providing services.

The Commission further recommended that the Department of Primary Industries and Energy report on the scope for introducing competition in the provision of some or all of AQIS inspection and certification services, possibly by franchising or contracting them to a range of State authorities or any other suitably qualified organisations.

Government response

On 3 May 1993, the Minister for Primary Industries and Energy, Simon Crean announced the membership and terms of reference for a

Grading system for produce

The Commission considered that the feasibility of developing a comprehensive grading system should be investigated and suggests that the HRDC fund such a task.

Organisational structures for exporting

Australian horticulture is characterised by a diversity of different sized enterprises successfully growing, marketing and exporting produce. The Commission did not identify any significant institutional or regulatory impediments which limit flexibility with respect to size or integration of business organisations in Australian horticulture.

For Australia, national single-desk export selling is inappropriate for most horticultural exports because of the geographically dispersed production of perishable goods, the lack of demonstrable market power, and because of its potential to reduce competitive disciplines.

Quality assurance

The Commission saw benefit in the use of voluntary quality assurance schemes, such as the Australian Horticulture Quality Certification Scheme, which conform to international standards and are provided on a fee-for-service basis. In many instances, a government imprimatur can enhance the acceptability of a scheme, particularly in its early stages.

The Australian Horticultural Corporation

Effectiveness

Whilst there was little conclusive evidence to show that the AHC had been effective in increasing the international competitiveness of Australian horticulture, many of the activities in which the AHC was engaged had the potential to be beneficial to Australian horticulture and were consistent with improving its international competitiveness. These are principally strategic planning, quality assurance certification, export promotion, market research, encouragement of communication amongst participants, and freight rate negotiations. However, some other activities or approaches of the AHC were more equivocal in their effects on international competitiveness, especially export licensing, domestic promotion and the

Measures used overseas

Australian horticultural exports are often impeded as a result of the assistance many foreign governments provide their horticultural industries. Australian exports of horticultural products are also impeded by quarantine measures.

It was not in Australia's best interest to retaliate against or imitate the protective trade barriers, export subsidies and unwarranted quarantine controls used by other countries to support their horticultural industries. The Australian Government should continue to argue in international forums and in country-to-country discussions for the removal of such measures.

Sales tax

A recommendation that sales tax not discriminate on the basis of fruit juice concentration or country of origin was made by the Industries Assistance Commission in 1988 but the Government has yet to make a decision.

The Commission recommended that the present distinction between Australian and imported fruit juices in the sales tax arrangements be removed, and that partial sales tax exemption on fruit based drinks containing not less than 25 per cent of fruit juice be discontinued.

Industry statistics

The Commission supported investigation of the horticulture sector's statistical requirements and methods of collecting and disseminating horticulture statistics. The Commission also supported government funding for this preliminary investigation task, and for the development of funding options for future industry statistical collections.

State agricultural authorities

The Commission considered that a review of the horticultural activities of State agricultural authorities and related expenditures may be warranted. The Horticultural Policy Council appears to be an appropriate body to undertake such a task.

Horticultural Task Force. It is to review the recommendations and findings of the Commission's report on horticulture, identify factors impeding the international competitiveness and sustainable development of Australian horticultural products, develop an export growth strategy, and recommend ways by which industry and Government could facilitate this strategy. Particular attention will also be given to the current problems of the citrus and dried vine fruit industries. The Task Force is to report by November 1993 (Crean 1993b).

Port authority services and activities

Report No. 31 released 30 June 1993.

Despite improvements in the performance of port authorities in recent years, the Commission found that more efficiency improvements are necessary as part of Australia's efforts to improve international competitiveness.

The Commission's recommendations focussed on State and Territory Governments placing their port authorities in more commercial, corporate environments.

As a priority, the Commission recommended that State and Territory Governments determine the roles of their port authority services and the functions which they should undertake. In most cases, the Commission proposed that port authorities restrict their activities to basic things like ensuring safe access and harbouring for ships while avoiding activities which private enterprise would otherwise undertake. Some States have already gone down this 'landlord' path. Under this scenario, non-core services and activities should be contracted out wherever it is cost-effective to do so. Other States are committed to going down this path. However, in some regional ports it may be more efficient for the port authority to undertake some non-core port activities.

The Commission's recommendations on how to make port authorities more commercial include making them subject to the Trade Practices Act and no longer excluding them from coverage of the Prices Surveillance Authority. This would help control any tendency for port authorities to take advantage of their monopoly status to raise prices excessively.

Recommendations included allowing market forces to determine how many private operators provide particular services to ports, and who they should be.

The Commission recommended a national approach be taken to coordinating port authority reform. It considered that any delay in implementing recommendations would postpone the benefits both to port users and the wider Australian community. A comprehensive program and firm timetable for ongoing port authority reform should be prepared and made public with monitoring of progress taking place and an annual public assessment submitted to the Council of Australian Governments. However, the Commission did not favour the central planning or coordination of investment decision by port authorities. These should be the responsibility of individual port authorities acting in a fully commercial manner.

Specifically, the Commission made the following recommendations:

- As a priority, State and Territory Governments determine which functions can be most efficiently carried out by each of their port authorities. In most cases, this will mean following the landlord model. However, in some regional ports it may be more efficient for the port authority to undertake some non-core port activities.
- Where governments follow the landlord port model, non-core activities be identified and divested to private enterprise. The supply of core services and activities should be contracted out wherever that is cost-effective.

Corporatisation

The following initiatives be implemented for all public port authorities without delay:

- they be constituted as statutory bodies, which are separate from the departmental structure of government;
- board members be appointed on the basis of individual experience, knowledge and skill, and not as representatives of interest groups;
- boards be accountable to the parliament through the relevant minister(s);

- all directions issued by government be in writing, and tabled in parliament;
- boards be set appropriate financial and non-financial targets, including target rates of return on assets;
- governments clearly specify and make public the community service obligations they expect port authorities to satisfy. Their costs should be funded by direct budgetary payment;
- port authorities not regulate non-core activities in which they themselves are engaged. An exception might be where it can be shown that there are cost savings from the one organisation performing both functions;
- they are liable for taxes and government charges;
- they be liable to pay a dividend out of any after-tax profit. The amount of any dividend should be recommended by the board to government for decision;
- they be made subject to the Trade Practices Act and no longer be excluded from the coverage of the Prices Surveillance Act; and
- they be free to determine their terms and conditions of employment, not subject to the constraints of government employment policies and practices.

Competition between ports

The Australian Transport Advisory Council (ATAC) review maritime regulations to ensure that they are reduced to a minimum, consistent with appropriate safety and environmental needs.

Efficiency within ports

Responsibility for guarding against the abuse of market power by port service providers rest with non-industry-specific bodies such as the Trade Practices Commission and the Prices Surveillance Authority.

Port authorities offer through public tender any available port-zoned land when interest is expressed in its commercial development. Incumbent operators should be eligible for tender. Leases should be:

- tradeable;

- for any length of time to be negotiated commercially between the lessee and the port authority; and
- awarded on the basis of the highest commercial benefit to the port authority, with the minimum acceptable bid being the lease value of the site in its alternative use, consistent with the port plan.

Subject to ensuring a satisfactory standard and level of service, port authorities issue only non-exclusive, tradeable licences for towage, pilotage and other port services. Any exclusive licence should be issued for only a short term (say, three years) through public tender.

Pricing

As a general principle, port authority assets be required to return at least their opportunity cost over their useful lives. But in the application of this principle:

- under-performing assets should be written down if they have no better commercial use;
- the value of land held for future use should be excluded from the asset base used to determine the level of charges for current port users;
- when a port authority assumes ownership of assets explicitly funded initially by users, the value of those assets should be taken into the authority's balance sheet, but the credit given in exchange should also be properly accounted for; and
- long-lived non-depreciating assets such as channels should be valued at zero, but their capital cost should be recovered from users rather than the community at large.

Subsidisation between non-port and port activities, subsidisation between ports, and the supply of any services and activities to any users at below marginal cost, be eliminated.

Port authority services be charged only to those who have a direct commercial relationship with the port authority.

Standard charging terminology in Australia be developed by ATAC in consultation with the Association of Australian Ports and Marine Authorities, port authorities and port users. The terminology should include the nature of each charge, and the basis for its calculation.

Management and work practices

In consultation with their employees and port users, port authorities persevere in identifying all remaining inefficient work practices. Once identified, such practices should be removed.

Port authorities allow independent operators to compete for and supply waterfront services even if they establish integrated port labour forces. Port authorities should not subsidise their waterfront activities from revenues received from other activities.

Terms and conditions of port authority employment be negotiated in the workplace by the parties concerned. It is inappropriate to extend the terms and conditions of stevedoring employment generally to all port authority employees.

Privatisation

Governments consider the opportunities to increase efficiency which might be offered by fully privatising ports that face competition from other ports (as in Tasmania) or that are dominated by a few large bulk users.

A national approach

ATAC prepare and make public a comprehensive program and firm timetable for ongoing port authority reform. The Council should then monitor the progress of reform and its effects, and submit a public assessment to the Council of Australian Governments.

Investment decisions be a responsibility of individual port authorities acting in a fully commercial manner. There should be no national control or planning of their investment.

Implementation

The Commission's recommendations should be implemented without delay, so that port users and the Australian community as a whole get the benefits as soon as possible.

The priority for governments is to determine the role and functions of each of their port authorities, and to move them to a corporate environment as quickly as possible. That is where the greatest efficiency gains will come.

Government response

No response to the report has been announced as at 10 September 1993 (see Appendix N).

Book production

Report No. 27 released 18 November 1992.

The main forms of protection are a bounty payable on the production in Australia of certain types of books, and a tariff on imported books other than those of an educational and cultural nature. In line with the Government's program of phased tariff reduction, the Commission proposed a gradual reduction in the level of protection to Australian book producers.

The Commission recommended that tariff rates on imported books remain within the phased reduction program announced by the Government in March 1991 so that the rate on dutiable imports will reach 5 per cent by 1 July 1996;

The Commission recommended that the book bounty should stay, but the rate at which it is paid should be reduced from 13.5 per cent according to the following timetable:

- 10.8 per cent from 1 January 1994;
- 9.0 per cent from 1 January 1995;
- 7.2 per cent from 1 January 1996;
- 4.5 per cent from 1 January 1997; and
- thereafter continue to be aligned with the tariff rate on imported books.

The Commission also recommended that the current $500 minimum claim threshold per title be replaced by a requirement limiting the payment of bounty to books with a publishers' production cost per title per production run of $3700 or more. (This would take effect from 1 January 1994, with the value to be adjusted annually thereafter by reference to changes in the Consumer Price Index.) Retaining the current threshold while reducing the bounty rate would otherwise have quickly reduced the range of books which could be eligible for bounty assistance. This would be inconsistent with the phasing down of assistance for other industries.

The effect of a gradual reduction in assistance will be diminished by the ability of book producers to take advantage of cheaper inputs, particularly paper, as tariffs continue to be reduced. The continuation of the gradual phased reduction in assistance should provide an additional incentive for the industry to continue to be innovative and to seek further productivity gains. The Commission maintains that national support mechanisms should be adequate to ameliorate any short-term regional employment difficulties if they occur.

The Commission recommended that present arrangements, whereby either a publisher or a printer may claim bounty, remain unchanged.

Government response

On 8 June 1993, the Government announced that the major recommendations contained in the Commission report would be implemented. The book bounty would be extended for another four years. The bounty will be progressively reduced from the current level of 13.5 per cent to 4.5 per cent by January 1997, which “fulfils the Government’s election pledge to bring assistance to the sector into line with other manufacturing industries” (Griffiths 1993).

Previously, the bounty was to cut out from the end of 1994. Assistance beyond 1997 will be reviewed to ensure the bounty is aligned with the tariff rate on imported books.

The bounty will also be extended to all directories, other than Australian telephone directories, timetables and accommodation directories. Books containing more than 30 per cent advertising will also be excluded from bounty eligibility.

Terms of reference for inquiries in progress

Environmental waste management equipment, systems and services

The production of environmental waste management equipment, systems and services, was referred, as an Industry Development Reference, for inquiry and report by 18 September 1993.

In making its recommendations, the Commission is to aim to improve the overall economic performance of the Australian economy.

The Commission is to report on:

- emerging trends in local and global markets for the industry;
- the current structure and competitiveness of the industry (including cost structure and potential cost savings);
- the potential for further development of the industry — including strengths and weaknesses, export potential and import replacement potential — and the time frame for likely development under current circumstances;
- any measures which could be undertaken to remove impediments or overcome constraints to the efficiency, growth or export development of the industry, in ways that are consistent with the principles of ecologically sustainable development and efficient resource use in the economy (covering such issues as regulation, market structure, workforce skill, property rights, or economic, budgetary, industrial, environmental, technological, social, or other factors); and
- the effects on the industry, and the economy in general, of any measures recommended by the Commission.

Where appropriate and without disclosing material provided in confidence, the Commission is requested to report on examples of past success and failure in the industry, both in Australia and elsewhere, by way of case study or other means.

Furthermore, the Commission is requested to quantify the extent of any assistance provided to the industry, identify if it is offered in a discriminatory manner within the industry and report on ways in which:

- that assistance could be better used to promote the long-term development of the industry and economy; and
- the costs of adjusting to lower levels of assistance can be minimised.

The Commission is to have regard to the established economic, social and environmental objectives of governments.

Urban transport

Urban transport was referred to the Industry Commission for inquiry and report by 15 February 1994.

The Commission is asked to report on institutional, regulatory and other arrangements affecting transport operations in Australia's major metropolitan areas and larger cities and towns which lead to inefficient resource use.

It was requested that the Commission give priority to areas where greatest efficiency gains are in prospect and early action by Governments is practicable, and advise on potential implementation strategies and responsible agencies.

Without limiting the scope of the reference, the Commission is to report on:

- the provision, pricing and subsidisation of, and access to, urban transport services, including rail;
- the extent to which current patterns of, and policies on, urban settlement in Australia may affect the efficient use of urban transport and the role of transport infrastructure in shaping the nature and pace of urban development;
- the impact of Commonwealth, State, Territory and Local Government taxation and funding policies on the development of urban transport systems and traveller behaviour;
- work practices inhibiting the efficient provision of existing or alternative transport services;
- the gains to be achieved from adopting international best practice in the provision of urban transport infrastructure and services;
- factors adversely affecting private sector investment in urban transport;
- the nature and scale of the external benefits and costs of passenger transport in urban areas and the implications for pricing policies and for assessing the performance of service providers;
- ways of achieving improved efficiency and integration within Australia's urban transport systems including private vehicle usage; and

- the social, environmental and economy-wide implications of current, and proposed changes to, urban transport services.

The Commission is to have regard to the economic, social and environmental objectives that Governments identify for their urban transport policies; and take account of recent substantive studies.

Adding further value to Australia's forest products

Adding further value to Australia's forest products in the woodchip, sawn timber, plywood and panel, pulp, paper and paper packaging industries, was referred to the Industry Commission, as an Industry Development Reference, for inquiry and report by 18 September 1993. (The Commission may give consideration to providing a series of reports if it is impractical to report within twelve months on the entire range of the above industries).

In making its recommendations, the Commission is to improve the overall economic performance of the Australian economy.

The Commission is asked to report on:

- emerging trends in local and global markets for the industries;
- the current structure and competitiveness of the industries (including cost structure and potential cost savings);
- the potential for further development of the industries — including strengths and weaknesses, export potential and import replacement potential — and the time frame for likely development under current circumstances;
- any measures which could be undertaken to remove impediments or overcome constraints to the efficiency, growth or export development of the industries, in ways that are consistent with the principles of ecologically sustainable development and efficient resource use in the economy, taking account of the polluter pays principle (covering such issues as regulation, market structure, workforce skill, property rights, or economic, budgetary, industrial, environmental, technological, social, or other factors); and
- the effects on the industries, and the economy in general, of any measures recommended by the Commission.

Where appropriate and without disclosing material provided in confidence, the Commission should report on examples of past success and failure in the industries, both in Australia and elsewhere, by way of case study or other means.

The Commission is to quantify the extent of any assistance provided to the industries, identify if it is offered in a discriminatory manner within the industries and report on ways in which:

- that assistance could be better used to promote the long-term development of the industries and economy; and
- the costs of adjusting to lower levels of assistance can be minimised.

The Commission is to have regard to the established economic, social and environmental objectives of governments.

Impediments to regional industry adjustment

Impediments to regional adjustment of industry was referred to the Industry Commission for inquiry and report by 18 December 1993.

The Commission is to report on ways of facilitating the efficient movement of resources within and between regions in Australia.

Without limiting the scope of the reference, the Commission is to identify impediments to industry adjustment in rural and urban regions that may arise from:

- the provision, quality, access and pricing of infrastructure and government services;
- legislation, regulation, taxation, intergovernmental financial relations and industry assistance policies of Commonwealth, State, Territory and Local Governments; and
- labour market arrangements including factors affecting the mobility of people.

The Commission is to have regard to the established economic, social and environmental objectives of governments; and take account of any recent substantive studies undertaken elsewhere.

Public housing

The provision of public housing in Australia was referred to the Industry Commission for inquiry and report by 5 November 1993.

The Commission is to report on ways in which Commonwealth, State, Territory and Local Governments can achieve their social, economic and housing objectives more efficiently and effectively and how those changes can be implemented.

The Commission is to have regard to the broad framework of the Government's housing policies as set out in "Housing — Choices for a Changing Nation" (released in the 1992–93 Budget context).

The Commission is to pay particular attention to:

- the acquisition, maintenance, construction and management practices adopted by providers (including providers of community managed housing);
- the administrative and other mechanisms used to allocate housing;
- rental policies;
- funding, financing and ownership arrangements; and
- associated Commonwealth, State and Local programs and policies.

The Commission is to take account of any recent substantive studies undertaken elsewhere, including by the National Housing Strategy.

Workers' compensation in Australia

Workers' compensation arrangements in Australia were referred to the Industry Commission for inquiry to report by 5 February 1994.

The Commission is asked to report on whether existing workers' compensation arrangements ensure appropriate safety and accident prevention incentives for both employers and employees and advise on any changes that should be implemented.

Without limiting the scope of the reference, the Commission is requested to report on:

- the effects of current workers' compensation arrangements on incentives for safety in the workplace, subsequent rehabilitation, return to work initiatives and other activities covered by the arrangements;

- institutional, regulatory, financial or other arrangements of governments in Australia which affect the efficient provision of workers' compensation and rehabilitation services for injured workers and the scope for greater national consistency;
- the relationship between workers' compensation and other related arrangements such as accident liability insurance, remedies available in common law and the regulation of workplace safety by governments;
- the interaction between workers' compensation and other government programs, including social security and health benefits and other related programs (such as personal income tax arrangements);
- differences between the various State schemes including premiums, levies and administrative costs, and the impact of these differences on the competitiveness of businesses in the public and private sectors; and
- the identification of best practice within all existing workers' compensation arrangements.

The Commission is to take account of any recent substantive studies undertaken elsewhere.

Petroleum industry

The petroleum industry (including petroleum refining, distribution and marketing but excluding oil and gas exploration and extraction processes, gas distribution, and petrochemicals) was referred to the Industry Commission for inquiry and report by 5 May 1994. 'Petroleum products' are to be defined to include all refinery products and by-products.

The Commission is to report on institutional, regulatory (including environmental and safety) and other arrangements subject to influence by governments in Australia which affect the efficient allocation and use of resources, and advise on courses of action to remove or reduce any identified inefficiencies — giving priority to areas where the greatest efficiency gains are in prospect, and where early action is practicable.

Without limiting the scope of the inquiry, the Commission is requested to report on:

- the current structure and competitiveness of the industry, including cost and pricing structures;
- the scope for improving the efficiency of the petroleum industry, including through changed management and work practices, the removal of structural impediments and the use of, and investment in, technology;
- the implications for the petroleum industry and the economy generally of regulations and arrangements in the industry, including the benefits and costs of possible changes;
- the impact of recent initiatives towards industry self-regulation; and
- implementation issues associated with the introduction of more efficient pricing policies.

The Commission is to have regard to the established economic, social and environmental objectives of governments; and take account of recent substantive studies undertaken elsewhere.

Meat processing

The meat processing industry (abattoir products except smallgoods and poultry) was referred to the Industry Commission, as an Industry Development Reference, for inquiry and report by 23 March 1994.

In making its recommendations, the Commission is to aim to improve the overall economic performance of the Australian economy.

The Commission is requested to report on:

- emerging trends in local and global markets for the industry;
- the international marketing environment, including barriers to Australian exports such as import quotas and inspection standards, and the efficiency of the means used in Australia to address these issues;
- the current structure and competitiveness of the industry, including an identification of strengths and weaknesses, drawing international comparisons where appropriate;

- the potential for further development of the industry, including the scope for further value adding and increased exports;
- the significance of environmental issues, including the environmental impact of the industry and any measures which could be taken to lower that impact;
- any measures which could be undertaken to remove impediments or otherwise contribute to the efficiency, growth or export development of the industry, in ways that are consistent with the principles of efficient resource use in the economy;
- the identification of groups benefiting from and disadvantaged by suggested measures, and implementation strategies for these measures; and
- the effects on the industry, and the economy in general, of any measures recommended by the Commission.

Where appropriate and without disclosing material provided in confidence, the Commission report on examples of past success and failure in the industry, both in Australia and elsewhere, by way of case studies or other means.

The Commission is to have regard to the established economic, social and environmental objectives of governments.

Government responses to reports from previous years

Cost recovery for managing fisheries

Report No. 17 released 6 February 1992

The Government announced that it would improve the level of cost recovery for fisheries management with the Australian Fisheries Management Authority to recover 100 per cent of its attributable costs, resulting in increased revenue of $0.5 million a year (Dawkins and Willis 1993).

Exports of health services

Report No. 16 released 13 February 1992

The Government announced (Howe 1992) that it supported the development of a new export strategy for health and medical services having considered the Commission's report. The Government's export strategy for health services would allow for the development of foreign markets for health services, whilst at the same time, safeguarding the Government's Medicare objectives, particularly access and equity.

The areas where the greatest contribution can be made to foreign exchange earnings from the health service industry development include innovative health management and training systems, hospital construction, health-related computer software and hardware systems, as well as technology-intensive services like remote diagnostic and telemedicine services. The Minister said that Australia is well placed to participate in the expanding regional health services market.

In announcing the broad framework of the export strategy, the Minister said that the Commonwealth would be actively seeking the cooperation of the State and Territory governments in generating the funding necessary over the next few years to further develop and implement the strategy.

Australian sugar industry

Report No. 19 released 29 March 1992

The Government proceeded with the announced tariff reductions on 1 July 1992. Also in July, the Minister of Primary Industries and Energy, Simon Crean announced the establishment of the Sugar Industry Task Force saying that he "would not be driven by the IC report" and that he wished that the sugar industry have a broadly representative institutional framework for the sugar industry similar to that of the dairy industry (Crean 1992).

On 2 February 1993 the Government announced details of its 'Sugar Package' (Crean 1993a). This followed the Task Force Report to the Minister for Primary Industry and Energy, Mr Crean. The package differs from the recommendations of the Commission's inquiry into the sugar industry in a number of major ways, including the nature and timing of tariff reductions; whether or not the domestic acquisition arrangements should continue; and changes to the assignment and pooling systems (Appendix N).

APPENDIX V
FEEDBACK ON COMMISSION REPORTS

One means for the Commission to evaluate its performance is to invite feedback on the quality and impact of its reports. This appendix provides details, in particular, of a review of the 1991–92 Annual Report.

In previous Annual Reports, the Commission has highlighted a commitment to evaluating its performance in its inquiry and general reporting and research programs.

As an advisory body to government, the Commission has no quantitative performance indicators to help evaluate its work. Its performance is therefore most easily and directly judged by the quality of its reports and the effectiveness of its analysis and recommendations as a step in bringing about worthwhile reform.

Feedback on the Commission inquiry reports comes in a number of ways. These include consultations with relevant government bodies, industry, union and community groups during the course of an inquiry; written submissions and appearances at public hearings on its draft reports; and monitoring media coverage and reaction. The net result is that the Commission receives extensive feedback on its inquiry reports even before they are formally submitted to government. As a further step, the Commission last year engaged a consultant to assess the impact of selected Commission inquiry reports (IC 1992d).

More recently, the Commission has also sought to strengthen its consultative links with the States and Territories. Amongst other things, this provides an additional and invaluable source of feedback on Commission inquiries, which are increasingly focussed on areas where the States and Territories have major responsibilities.

As foreshadowed in last year's Annual Report, the Commission this year undertook a review of its 1991–92 Annual Report. The review sought the views of a select group of people on the contribution of the Annual Report to public debate, its value as a reference document, and invited suggestions on how it might be improved.

Nature of the Annual Report review

The Commission sees its mission as being to improve the well-being of Australians by informing the community and providing independent, public advice to Australian governments on ways to improve overall economic performance. The Annual Report is one mechanism for accomplishing this mission.

The Annual Report fulfils a number of statutory obligations which are spelt out in the *Industry Commission Act 1989* and the *Public Service Act 1922:*

- general reporting on economic performance of industry and the principal factors affecting that performance;
- general reporting on assistance and regulations affecting industry and the effects of that assistance and regulation; and
- corporate reporting on operations of the Commission.

A major aim of the review was to gauge how effective the 1991–92 Annual Report had been in this regard and, specifically, to gauge its contribution to debate within the community and its influence on the general policy-making environment.

The review was deliberately selective rather than representative of the community at large. As was evident in last year's review of inquiry reports, a wider review would tend to mirror the existence of polar opinions about the Commission and its general approach, rather than elicit information that would help the Commission ensure that its Annual Report is effective in informing and influencing its immediate audience. The review group was therefore restricted to those organisations and individuals likely to have an immediate interest in the Commission's Annual Report. The group included private sector industry organisations, Commonwealth and State government departments, community groups and academics.

The respondents were well aware of the Commission's activities and its Annual Report, and were therefore well qualified to comment.

microeconomic reform in the Commonwealth, States and Territories. Of least interest were the appendixes on administrative matters.

Different respondents saw particular appendixes as valuable sources of reference material.

> This Department has always found the IC's Annual Report to be extremely useful in outlining a clear micro-reform agenda, in bringing together estimates of potential gains to the economy from micro-economic reform of particular industry sectors, and in providing a useful basis for forward agendas (Government department).

> This Department has made extensive use of the appendices on specific industry arrangements and alternative assistance measures, and the detailed data on effective rates of assistance (Government department).

Several respondents took issue with specific technical aspects of the report. For example, criticisms were made about the material presented in Appendix B (Changes in the industrial composition of Australia's trade). These have been addressed in Appendix E of this year's Annual Report.

The feedback from some Departments with administrative responsibility for reform measures included criticism that some issues of importance were not sufficiently covered. Some departments therefore offered to consult more closely on important issues. As a result, the Commission has undertaken to broaden its consultations where possible.

While acknowledging that there is a lot of material to absorb, most respondents considered that the Annual Report should stay as one document. However, some suggested that there could be value in also releasing the chapters as a stand-alone document. The Commission agrees with these suggestions and this year will release a separate version of the chapters together with the overviews of inquiries completed during the year.

Respondents were also asked to judge the impact of the Annual Report on the wider community. They included organisations with an interest in the Commission's reference material and commentary as well as those that have direct responsibility for policies which are reviewed and commented upon in Commission reports.

The review was open-ended in allowing respondents to raise issues that are relevant to them. Some prompts were provided in the following form:

- the contribution of the Annual Report to the policy debate within government circles and the general community;
- its coverage of relevant policy issues;
- its analytical content and how well its messages are supported;
- its timeliness;
- the clarity of its messages;
- the usefulness of the statistical and reference appendixes; and
- whether there is too much material to absorb from one document, or whether, on balance, the benefits of a single reference document dominate.

A supplementary sheet was also included to gauge the level of interest in the reference material contained in specific appendixes.

Results of the review

Responses were received from 25 of the 39 organisations and individuals contacted. Overall, the Annual Report was valued as an important contribution to the policy debate. It was generally found to provide a relevant, timely, comprehensive and topical policy coverage which clearly identified major issues.

> ... it provides a significant contribution to the microeconomic reform policy debate within both government circles and the general community. The document's cogent and easily understood arguments for pressing on with microeconomic reform provide an important counter to the growing clamour in the current recessionary environment for the pace of reform to be wound back (Government department).
>
> This year's report was especially valuable as it placed the structural adjustment issues in the wider context of the recession and unemployment (Industry organisation).

> The emphasis on reform of labour markets, championing the goal of increased flexibility and improved work practices, seems particularly appropriate, especially when linked to the need to overcome persistent structural unemployment. It was well supported by the attachments on the micro reform process (Government department).

The Annual Report was also valued as a source of reference material. As part of the Commission's statutory reporting requirements, the Report includes a range of statistical and analytical material on the performance of Australian industry, and on assistance and regulation and their impacts on industry.

> Although most of the information ... is available elsewhere, the Annual Report represents an excellent consolidation of information, thereby saving users costly research time and risk of omission when researching these matters (Community group).

There were varying degrees of interest in the appendix material (Table V1). There was greatest interest in the appendixes that dealt with the performance of the economy, governments and the reform process and some aspects of assistance and regulation review. The greatest interest was shown in the appendix reviewing progress on implementing

Table V1
Level of interest in 1991–92 Annual Report appendixes

Appendix	*Level of interest*
Changes in the industrial composition of the Australian economy	high
Recent changes in the industrial composition of Australia's trade	high
Australia's productivity record	high
Labour adjustment	medium
Reforming government business enterprises	high
Progress on microeconomic reform	very high
Developments in regulation and its review	medium
Developments in specific industry arrangements	high
Alternative assistance measures	high
Anti-dumping activity	medium
Assistance to agriculture, manufacturing and mining	high
Administrative matters	low
Inquiry activity and reports of the Commission	medium
Assessing the impact of Commission reports	medium

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