

# Trade in Infrastructure Services and Economic Efficiency: Australia's Experience

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# Trade in infrastructure services and economic efficiency: Australia's experience

## **Executive summary**

Over the last two decades, Australia has accumulated substantial experience in liberalising its key infrastructure service industries.

Australia's approach to infrastructure reforms has generally been unilateral. The impetus to reform infrastructure services grew from reforms elsewhere.

Many of Australia's infrastructure reforms have resulted in greater market access and national treatment generally, as well as significant improvement in domestic regulatory regimes. Indeed, reforms of domestic regulations have often been an important precondition for successful reforms of market access and national treatment.

The implementation of reforms has not come at the expense of social welfare or equity considerations, or other national objectives.

A significant increase in productivity growth has occurred in Australia during the 1990s, the period in which reforms intensified throughout the economy.

It is now widely accepted that reforms have made a significant contribution to this economy-wide productivity improvement.

At the industry level, the period since the implementation of major infrastructure reforms has seen significant developments, including improved technical efficiency and productivity, higher output and more technical innovation.

Reforms have allowed a more efficient allocation of resources and facilitated structural change. Prices have become more reflective of costs, and improved productivity and lower prices have reduced the input and production costs of user industries. Lower prices and greater product choice have also benefited consumers.

Australia is also likely to benefit from further reforms of its infrastructure industries.

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Studies of the effects of further services trade liberalisation have been hampered by a lack of quantitative estimates of the size and economic significance of barriers to services trade.

To help overcome this problem, the Australian Productivity Commission and the Australian National University undertook a collaborative project to measure and model the effects of services trade restrictions in a number of economies in Europe, Asia, and North and South America.

Generally, the results showed that Asian and South American economies had medium restrictions on services trade. These economies were also the most discriminatory against foreign service suppliers. European and North American economies tended to have low to medium levels of restrictions. Nevertheless, there were some important exceptions to these general trends.

The collaborative project also estimated the direct effect of services trade restrictions on the economic performance of service firms in some sectors, and then projected the economy-wide and global benefits of multilateral services trade liberalisation, by using these direct price or cost effects in a computable general equilibrium (CGE) model.

One paper found that the gains to the world as a whole from *completely* liberalising services trade would roughly equal those from completely liberalising agriculture and manufactures combined.

But it would be difficult to find an outcome where at least some economies gained and none lost from *partial* liberalisation, when it involved only removing one class of restriction (such as market access or national treatment). This suggested that the best strategy for liberalisation may be to negotiate gradual reductions in *all* types of restrictions simultaneously.

Another paper showed that a country's services sector itself need not lose from liberalisation, because there are competing forces at work — not all services trade barriers discriminate against foreign services suppliers, so the service sector could expand because of new domestic entry, and some services trade barriers restrict inward FDI, so the service sector could expand because of new foreign entry.

The net effect of multilateral liberalisation was likely to be an expansion in the services sectors in economies where domestic services restrictions were high initially.

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# Trade in infrastructure services and economic efficiency: Australia's experience

Over the last two decades, Australia has accumulated substantial experience in liberalising its key infrastructure service industries. The first section of this paper summarises those reforms, and their effects on efficiency and economic performance. The second section outlines the scope for further liberalisation of trade in infrastructure services, in both Australia and selected other economies. The third section summarises the results from preliminary modelling work designed to quantify the benefits to Australia and other economies from further multilateral liberalisation of services trade. The fourth section outlines a future research agenda.

## 1 Australia's recent reform experience

Since the mid-1980s, Australian governments have pursued a wide range of policy and institutional changes to improve the efficiency of resource use, as a means of lifting productivity and raising living standards. In a gradual process, reforms have affected all sectors and levels of government, and covered various areas — trade policy, infrastructure, government business enterprises, general government services, environmental management, taxation, labour market and specific industries.<sup>1</sup>

Substantial reform has occurred in key infrastructure service industries — financial services, telecommunications, postal services, air transport and maritime (shipping and port) services<sup>2</sup> — as part of the broader reform process. The importance of infrastructure services to the Australian economy has placed reforms of these industries among the key policy priorities.

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<sup>1</sup> The Productivity Commission, Australia's principal review and advisory body on policy reform, has extensively analysed and documented the implementation of reforms in Australia. For a compendium of Australian reforms (IC 1998) and analyses of reform performance, visit its website at <http://www.pc.gov.au>.

<sup>2</sup> Australia has had significant reforms in other infrastructure industries — electricity, gas, water, rail and road — that are not discussed in this paper.

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The Australian experience is that properly implemented reforms to infrastructure services have contributed to recent significant improvements in economic performance, both in specific industries and the national economy.

## **Types of infrastructure reforms**

Australia's approach to infrastructure reforms has generally been unilateral. Many reforms preceded international efforts to liberalise services trade through the General Agreement on Trade in Services (GATS). Significant reforms in financial markets began in the mid-1980s, involving for example, freeing the exchange rate, removal of restrictions on bank operations and foreign bank entry. Major reforms in other infrastructure industries, particularly telecommunications and domestic aviation, started in the late 1980s and early 1990s.<sup>3</sup>

The impetus to reform infrastructure services grew from reforms elsewhere. Significant unilateral liberalisation of Australia's agricultural and manufacturing trade started to take place in the 1970s. The financial reforms in the mid-1980s improved competitiveness of the financial markets and availability of capital to the economy. Further liberalisation of merchandise trade took place in the mid-1980s, with a phasing down of tariffs and quantitative restrictions. The greater international competition in goods markets and the need to reduce costs to be competitive in turn exposed inefficiencies in services input markets (as well as labour markets) and provided the impetus for their reform. By the late 1980s, the reform focus had shifted to promoting competition in the key infrastructure industries, including telecommunications and domestic aviation. Labour market and industrial relations reforms also began in a gradual fashion in the late 1980s, to encourage more of a focus on the enterprise and productivity. In the 1990s, cooperation between different levels of government produced the National Competition Policy reforms and extended the reform process to most sectors of the economy (PC 1999a).

The attachment at the end of this paper lists the significant reforms to date in Australia's infrastructure industries. It first subdivides reforms into those designed to improve:

- market access — removing or reducing barriers that restrict competition and activity, but do not discriminate between domestic and foreign service providers;

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<sup>3</sup> International air transport is governed by the (industry-specific) bilateral air service arrangements outside GATS rules. Australia's liberalisation has proceeded on a more limited bilateral and plurilateral basis, since unilateral actions could lead to adverse outcomes to the industry and the country concerned (PC 1998c).

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- national treatment — liberalising barriers that treat foreigners less favourably than domestic service providers; and
  - domestic regulatory regimes — reforms of regulations and institutional structures designed to achieve appropriate national regulatory objectives at least cost to economic efficiency.

This categorisation of reforms is similar to that in the GATS, except that by omitting discriminatory barriers from the ‘market access’ category, it removes the overlap between ‘market access’ and ‘national treatment’.

Within each of these reform categories, the attachment then lists Australia’s reforms by infrastructure industry — financial services, telecommunications, postal services, aviation, and maritime (shipping and ports).

The attachment shows that many of Australia’s infrastructure reforms have resulted in greater market access and national treatment generally, as well as significant improvements in domestic regulatory regimes. Indeed, reforms of domestic regulations have often been an important precondition for successful reforms of market access and national treatment.

*Market access* reforms are particularly significant in banking, telecommunications and domestic aviation. Early banking reforms lifted various controls on bank lending, deposits and interest rates, and removed barriers to competition between banks and non-bank financial institutions. Deregulation in telecommunications and domestic aviation has largely removed exclusive monopoly rights, often enjoyed by a government service provider, and opened the markets to greater competition and entry. Privatisation of government business enterprises has also permitted greater private ownership and market access in some industries.

Progressive liberalisation has also promoted competition from international sources and addressed derogations from *national treatment* in infrastructure industries. Foreign entry and investment have now become much greater in banking, telecommunications and more recently, aviation. Elsewhere, the substantial progress in reforming domestic regulatory regimes and promoting competition now means that Australia is well-placed to consider future reform of restrictions that limit national treatment — the prior reforms ensure that granting national treatment will not simply result in the transfer of monopoly privileges to a foreign supplier.

An important part of Australia’s infrastructure reforms has been efforts to improve its *domestic regulatory regimes*. In this way, those social and economic objectives that could not be met through market forces alone would be achieved in the most efficient manner.

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For example, banking and aviation deregulation has been accompanied by separation of regulatory responsibilities and streamlining complex regulations. This has improved accountability and effectiveness in meeting legitimate prudential and air safety objectives.

In specific circumstances where infrastructure facilities possess natural monopoly characteristics, third party access arrangements have been put in place to prevent misuse of market power. The existence of ‘bottle neck’ facilities that are uneconomic to duplicate can stifle effective competition in downstream and upstream markets. In this situation, simply removing barriers to entry may not improve economic welfare. Third-party access provisions can allow new entrants access to the bottleneck facilities and promote effective competition in upstream and downstream markets. In Australia, a generic national access regime now operates, subject to some exclusions (eg broadcasting), and industry-specific arrangements apply to telecommunications.

Price caps and prices surveillance have also been used to limit the abuse of monopoly power in postal services, airports, telecommunications and port services.

The implementation of reforms has not come at the expense of social welfare or equity considerations, or other national objectives. Where Australian governments have retained objectives such as universal access by all consumers to key infrastructure services, these are increasingly achieved by direct mechanisms, rather than by hidden cross-subsidies. And while complete or majority government ownership has remained a government objective in postal services, ports, and in the main telecommunications carrier, a range of mechanisms have been put in place to improve the economic performance of those government-owned entities.

Indeed, reform of government business enterprises (GBEs) has been a policy priority for infrastructure services. Early reforms focused on administrative aspects — restructuring and separating regulatory powers from the business activities of GBEs — to reduce political and bureaucratic interference in day-to-day operations and ensure accountability. Efforts have also been made to give a more commercial focus in GBE operations and to create an equal footing between private and public enterprises (competitive neutrality) via commercialisation, corporatisation and the contracting out of non-core activities, and applying equivalent treatment concerning dividend payment, taxes and regulations. As noted, achieving community or universal service obligations is increasingly done by direct mechanisms, such as budget funding. While the approach to GBE reforms has varied across jurisdictions and industries, competition and restructuring reforms have sometimes, but not always, been followed by privatisation.

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Review processes are also required to ensure that appropriate regulations continue to promote market efficiency. In the case of infrastructure bottle neck facilities, a recent review of access arrangements in Australia (PC 2001b) found that, although such regulations remain appropriate to promote effective competition, there are risks that excessive regulation may reduce incentives for continuing investment in network facilities, with adverse effects on efficiency in the longer term. Regulatory changes were proposed to reduce the regulatory risks to future investment in infrastructure covered by access arrangements.

There is often scope to reduce duplication and complexity in regulations and lower direct and compliance costs. These benefits would also reduce barriers to entry for new firms and services and enhance competition in the market. One component of Australia's National Competition Policy reforms is a systematic review of legislation, with a view to eliminating anti-competitive elements. Recent reforms in the financial sector are aimed at creating an effective and efficient framework of prudential and consumer protection regulation, but also involve streamlining and harmonising regulations across different financial service providers.

### **Gains from infrastructure reforms to date**

The key focus of infrastructure reform has been to promote competition in the supply of services from both domestic and international sources, and to improve the performance of government business enterprises. By creating incentives to operate efficiently, reforms can bring important benefits — such as improved productivity and structural change — the key foundations to achieving higher living standards.

Analysis of the effects of reform, or government policies in general, is a difficult exercise for a number of reasons. Reform implementation occurs over a long period during which the Australian economy also experiences numerous other changes. For example, adoption of new technology has become much greater in banking and telecommunications services (though this may also partly reflect increased competitive pressure). In recent times, the Australian economy has also benefited from a stable macroeconomic environment through the application of sound fiscal and monetary policies. Further, several reforms are ongoing and have yet to deliver their full benefits.

Notwithstanding these difficulties, the link between reforms and economic performance is now becoming evident in specific industries and the national economy.

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### *Aggregate (economy-wide) performance*

Improvements in Australia's economic performance demonstrate the benefits of implementing an economy-wide reform program, and in the context of GATS, the importance of a broad (intersectoral) coverage in the liberalisation of services trade.

A significant increase in productivity growth has occurred in Australia during the 1990s, the period in which reforms intensified throughout the economy. Since 1993-94, Australia's aggregate multifactor productivity growth has increased at around 1.8 per cent per year, which is at an all time high since the 1960s. This productivity growth has been of fundamental significance to the Australian economy, contributing most (90 per cent) of the recent rise in Australian average incomes.

It is now widely accepted that reforms have made a significant contribution to this productivity improvement (see, for example, PC 1999a, Parham 2000, OECD 2001, Forsyth 2000 and Dowrick 2001). The productivity increase is consistent with the timing of the implementation of reforms (PC 1999 and Forsyth 2000). Strong econometric evidence shows a remarkable resurgence in Australia's productivity growth linked to reform, after correcting for cyclical influences and international factors such as economic growth in OECD countries (Dowrick 2001). Further, Australia is one of the few OECD countries to have experienced significant productivity growth, but as a user of information and communication technologies, rather than as a producer, as in the United States.

Australia's productivity performance has also been remarkable in other aspects. The productivity improvement and GDP growth withstood the recent Asian financial crisis, a significant achievement given Australia's trade exposure to the Asian region. Indeed, Australia's effective response to the Asian financial crisis, including shifts to other export markets, has indicated various signs of increased flexibility and adaptability in the Australian economy in response to structural changes.

### *Industry performance*

At the industry level, the period since the implementation of major infrastructure reforms has seen significant developments, including improved technical efficiency and productivity, higher output and more technical innovation.

Australia's banking services, and financial services generally, have experienced marked changes since the beginning of the reform process. They have achieved significant growth, with a reduction in costs and improvements in productivity. A greater range of financial services has become available and adoption of new

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technologies and innovations is wide ranging. Intense competition also lead to specialisation and restructuring in many areas. The recent Financial Systems Inquiry (1997) analysed experiences in the industry since deregulation and concluded that, on balance, reform of the financial system has brought net benefits to Australia (box 1).

Other evidence also indicates improved performance of the financial sector. While varying at different times, productivity growth in finance and insurance services has significantly improved since 1984-85, compared to productivity declines in the pre-deregulation period (table 1). In terms of prudential standards, there are signs of improved risk management practices in Australia's banking sector, which played a part in averting the Asian financial crisis (Carmichael 2000). In financial areas other than banking, there is scope to improve prudential regulation further, as the recent collapse of a major insurance company has highlighted.

**Box 1      Reform of financial services**

The Financial System Inquiry (1997) undertook a stocktake of experiences in past reforms and reviewed regulatory arrangements in the financial system. The report found that financial deregulation, along with technological changes, has brought significant benefits, including:

- improved productive efficiency in domestic markets and institutions, as evidenced by lower expenses (costs) and increased productivity;
- improved dynamic efficiency manifested through continuing capital investment in the financial system;
- greater choice and availability of finance at all levels, with more flexible financial services indicating improved quality; and
- increased product innovation, including a wide variety of retail products providing a high return to savers.

The report also noted the problems that followed financial deregulation, particularly the excessive lending in the late 1980s, which subsequently resulted in the introduction of tighter prudential regulation. Consumer protection regulation has also received greater focus as product range and complexity has increased. However, these additional regulations were introduced in an ad hoc way and have generated high direct and compliance costs, by international standards. The report identified several areas for continuing reform, which were progressively adopted by the Government (see attachment).

*Source:* Financial System Inquiry (1997).

In telecommunications, the reform has also brought significant industry changes. Telecommunications has been a fast growing industry with rapid entry and significantly greater number of firms, which has been facilitated by the introduction of full competition and third-party access arrangements. This has provided greater choice in selecting a provider and expanding the range of services. In some cases, increased competitive pressures and (global) market conditions have also led to restructuring, takeovers and business failures. Investments in new networks by infrastructure-based providers have introduced greater scope for competition in wholesale and retail markets (PC 2001b).

Productivity growth in the communication sector, including telecommunications and postal services, recovered strongly after 1988-89 (table 1). Performance monitoring of government business enterprises in telecommunications and postal services also showed several favourable outcomes — improved productivity, increased dividends to governments and continuing ability to meet social objectives (PC 1998b and 2001a).

**Table 1 Multifactor productivity growth by sector**

Per cent

	1974-75 to 1981-82	1981-82 to 1984-85	1984-85 to 1988-89	1988-89 to 1993-94	1993-94 to 1999-00
Finance & insurance	-2.9	-1.1	1.5	0.1	1.2
Communication	6.1	3.2	3.6	6.1	4.0
Transport & storage	2.8	1.4	0.8	0.8	1.8
<i>Other sectors<sup>a</sup></i>					
Electricity, gas & water	2.2	1.2	5.1	4.0	1.6
Construction	2.6	-0.7	-0.3	-0.5	1.1
Wholesale trade	0.5	-2.5	1.8	-2.0	5.2
Retail trade	0.9	2.7	-2.6	0.7	1.1
Accomm., cafes, restaurants	-0.5	-2.9	-1.4	-1.9	0.3
Cultural & recreation	-0.5	-1.9	-4.6	-2.4	-3.7
Agriculture	2.5	3.2	-1.5	4.2	3.4
Mining	-3.8	5.8	2.4	2.3	2.2
Manufacturing	2.3	2.0	1.5	2.0	0.9
<i>Market sector<sup>b</sup></i>	<i>1.1</i>	<i>0.8</i>	<i>0.4</i>	<i>0.7</i>	<i>1.8</i>

<sup>a</sup> Major reforms have been implemented in other sectors, including electricity, wholesale trade, agriculture and manufacturing. <sup>b</sup> The market sector includes the industries identified above and accounts for three-quarters of GDP. The non-market sector includes areas such as public administration and defence, where output is measured in terms of expenditure and is not amenable to meaningful productivity calculations.

Source: PC (2001c).

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The transport industry overall has also experienced productivity increases in the 1990s (table 1). Major reforms have been implemented in air transport and maritime services (shipping and ports).

In domestic aviation for example, industry performance improved as a result of increased competition, privatisation and greater opportunities to pursue commercial opportunities. Although there was a period of no new entry into the industry, competition between the two incumbent airlines was found to have had important effects on airlines and users (Oum and Yu 1997, PC 1998c and Forsyth 2000). An estimate indicates that deregulation has led to substantial productivity gains, with an annual productivity growth of 7 per cent between 1988-89 to 1998-99 (Forsyth 2000). This was accompanied by a rapid growth in the number of passengers and greater availability of discount fares. Competitive pressures have recently brought the collapse of a major player, but the industry remains highly contestible.

#### *Effects of reforms on users and consumers*

Reforms allow an efficient allocation of resources and facilitate structural change. Prices become more reflective of costs, and improved productivity and lower prices reduce input and production costs of user industries. Lower prices and greater product choice also benefit consumers.

Allocative efficiency gains from reforms have been observed in several industries. Since deregulation in the early 1990s, telecommunications pricing has reflected more closely the underlying costs, with subsequent reductions in deadweight losses (Albon, Hardin and Dee 1997). In airport services, a more efficient allocation of investments has resulted from less political interference in investment decisions and past excessive investments (Forsyth 2000). In banking services, deregulation has led to significant reductions in cross-subsidisation among different products and customer groups, particularly with the introduction of fees on retail transaction accounts since the early 1990s (Financial System Inquiry 1997).

Other evidence, while inconclusive, suggests an acceleration in the pace of structural change and resource movements to the best productive uses in the Australian economy (PC 1999a and Parham 2000). Sectoral input data suggests important industry composition effects in Australia's productivity performance in the 1990s. Inputs and resources have tended to move away from 'traditional' industries, raising the productivity performance of those industries, while certain services — communications, finance and insurance, and business sectors — have experienced strong growth with increased specialisation, economies and technological advances.

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Since the beginning of the reform process, price reductions have occurred in the industries studied.

- In banking, banks' operating income as a proportion of assets has declined since the late 1980s. This has resulted from the large reduction in bank interest margins (40 per cent), which offset the rise in bank fees. Housing borrowers and more recently, small businesses have been the main beneficiaries (Battellino 2000 and RBA 2001).
- In telecommunications, the real price has fallen by 20 per cent since 1990-91, benefiting both residential and business users. Since 1997, price reductions have occurred in most services, particularly those that are most competitive, such as long distance and mobile services. Most quality indicators also show an improvement (PC 2001b and estimates).
- In postal services, the corporatisation of the government service provider (Australia Post), increased competition, albeit as yet limited, and price control have seen the real price of a standard letter fall by 10 per cent. This has been accompanied by increased dividend payments to the Government and greater consumer satisfaction and choice (PC 1998b).
- In domestic aviation, average fares have fallen sharply with a proliferation of discount fares (Forsyth 2000). Other estimates indicate a price reduction of 25 per cent in air fares since deregulation (Banks 2000). On international aviation routes, the PC (1998c) found that greater competition has led to lower airfares, and increased frequency, variety and quality of services.
- Between 1991-92 and 1996-97, the average real prices of port services have fallen across jurisdictions, benefiting shippers and ship owners (PC 1998a).

The reported price effects from reform occurred mainly via cost reductions and improved productivity. Productivity improvements reported in communications and aviation tend to support this view. Falling bank operating income has been associated with reductions in bank operating expenses (RBA 2001).

Despite the progress achieved so far, other indicators suggest further scope for improvements and reform, at least when compared with international standards. International benchmarking revealed that Australia's telecommunication prices ranked about the international average and were 20-40 per cent above the best performing countries (PC 1999b). Other studies indicate a productivity gap between Australian and overseas airlines, even after taking into account factors such as stage length and scale (Forsyth 2000).

In some circumstances, undertaking one reform without other supporting reforms may delay realisation of important gains. In stevedoring, for example, the lack of

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policies to promote competition in service provision makes it unclear whether the benefits of workplace reforms will be passed on to users, notwithstanding more productive workplace arrangements on the wharves. A major barrier to competition is the exclusive, long term leases (up to 40 years) that stevedores have with port authorities (PC 1998a).

Overall, Australia has made significant progress over the last two decades in opening up its infrastructure industries to domestic and foreign competition and improving their regulatory regimes, with substantial improvements in efficiency and performance.

## 2 Future trade liberalisation agenda

Australia is also well-placed to consider further reforms of its infrastructure industries. And because these industries are critical to the functioning of other parts of the economy, the efficiency gains from even modest further reforms are likely to be substantial.

Studies of the effects of further services trade liberalisation have been hampered by a lack of quantitative estimates of the size and economic significance of barriers to services trade. To help overcome this problem, the Australian Productivity Commission and the Australian National University undertook a collaborative project to measure and model the effects of services trade restrictions in a number of economies in Europe, Asia, and North and South America.

In its initial phase, the work focused on barriers to market access and derogations from national treatment, and quantified restrictions affecting trade in the following services sectors:

- *banking* services in 38 economies (McGuire 1998, McGuire and Schuele 2000, Kalirajan et al. 2000);
- *telecommunications* services in 136 economies (Warren 2000a, 2000b);
- *maritime* services in 35 economies (Kang 2000, McGuire, Schuele and Smith 2000);
- *wholesale and retail distribution* in 38 economies (Kalirajan 2000);
- *education* services in 29 economies (Kemp 2000);
- *professional* services (accounting, architecture, engineering, legal) for up to 34 economies (Nguyen-Hong 2000); and
- *foreign direct investment* in a variety of services sectors in 15 APEC member economies (Hardin and Holmes 1997).

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Wherever possible, this research also measured the impact of these barriers on economic outcomes — prices, costs, profits or quantities produced.

More recently, the work has extended ‘beyond the border’ into the effects of regulatory regimes in three important service industries — air passenger transport, telecommunications and electricity supply. Doove et al. (2001) drew on the OECD’s rigorous assessment of regulatory regimes in these three sectors (Gonenc and Nicoletti 2000, Boylaud and Nicoletti 2000, Steiner 2000) and extended it to range of non-OECD economies.

The methodology for measuring and modelling restrictions on trade in services generally involves three steps:

- *Step 1:* Calculate a trade restrictiveness index to get an initial indication of how restrictive are the barriers affecting services trade in a particular sector in an economy;
- *Step 2:* Estimate the direct effect of restrictions, as measured by the trade restrictiveness index, on the economic performance — price, cost, price-cost margin or quantity — of service firms in that sector; and
- *Step 3:* Project the economy-wide and global benefits of removing restrictions on services, by using the direct price or cost effects from step 2 in a computable general equilibrium (CGE) model.

The remainder of this section discusses how the first two steps have helped to quantify the scope for further services trade liberalisation in Australia, as well as in a range of other economies. The next section discusses how the last step has been used to quantify the potential gains to economic efficiency in Australia and elsewhere from further multilateral services trade liberalisation.

## **Measuring services trade restrictions**

Restrictions on trade in services can be measured using a trade restrictiveness index. The index is essentially a sophisticated frequency measure that estimates the restrictiveness of an economy’s trading regime for services based on the number and severity of restrictions.

Information on restrictions is first gathered and then classified. The information on restrictions is drawn from a number of sources, including the material produced by the Asia Pacific Economic Cooperation (APEC) forum, the OECD, the WTO and the United States Trade Representative. The information on restrictions is thus more comprehensive than that provided in the GATS schedules of WTO Members.

The index methodology classifies restrictions in two ways. The first is by whether a restriction applies to:

- *establishment* — the ability of service suppliers to establish a physical outlet in a territory and supply services through those outlets; or
- *ongoing operations* — the operations of a service supplier after it has entered the market.

Restrictions on *establishment* often include licensing requirements for new firms, restrictions on direct investment in existing firms and restrictions on the permanent movement of people. Restrictions on *ongoing operations* often include restrictions on firms conducting their core business, the pricing of services and the temporary movement of people.

The second way a restriction is classified is by whether it is:

- *non-discriminatory* — that is, restricting domestic and foreign service suppliers equally; or
- *discriminatory* — that is, restricting only foreign or only domestic service suppliers.

This two-by-two classification is similar to that used in the GATS schedules of commitments. Restrictions on *establishment* are a subset of those affecting services delivered via foreign direct investment (the main way of establishing commercial presence, in GATS-speak). Restrictions on *ongoing operations* can affect services delivered by cross-border supply, consumption abroad or the presence of natural persons (other modes of supply recognised under the GATS). *Non-discriminatory* restrictions are one interpretation of the GATS' limitations on *market access*, and while *discriminatory* restrictions are one interpretation of its limitations on *national treatment*. Table 2 provides an example of how trade restrictions on banking services are classified.

**Table 2 An example of classifying trade restrictions on banking services**

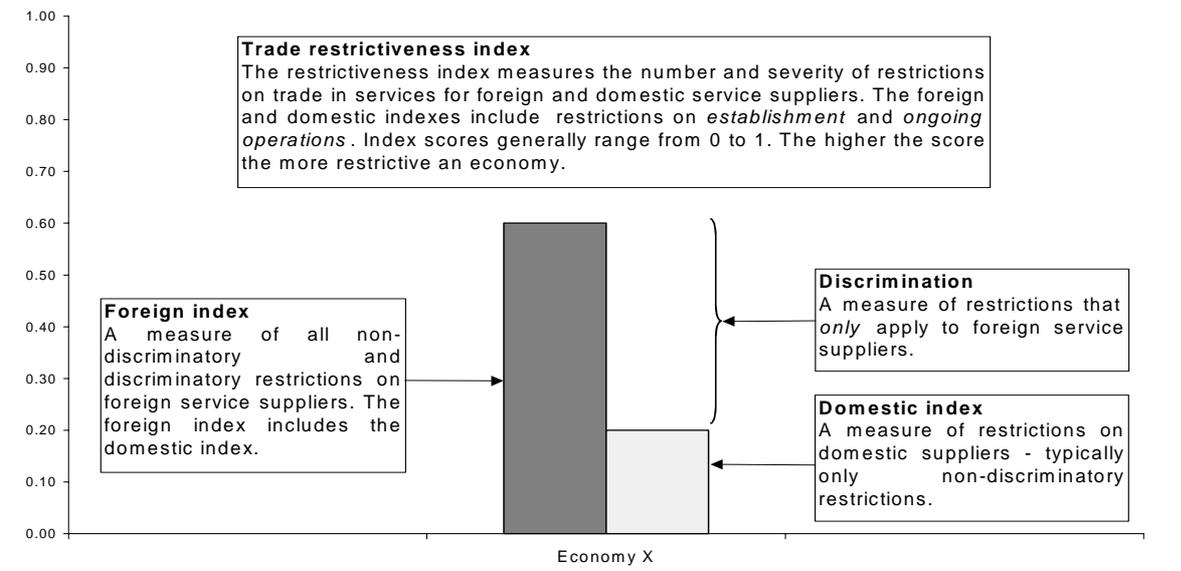
	<i>Establishment</i> (primarily, commercial presence mode of supply)	<i>Ongoing operations</i> (cross-border, consumption abroad and movement of natural persons modes of supply)
<i>Non-discriminatory</i>	The number of banking licences is restricted.	Banks are restricted in the manner in which they can raise funds.
<i>Discriminatory</i>	The number of foreign bank licences is restricted.	Foreign banks are restricted in the manner in which they can raise funds.

A trade restrictiveness index score is calculated for each economy using a methodology of scores and weights. Scores are assigned for each restriction on the basis of a judgement about how stringent it is. The more stringent the restriction, the higher the score. For example, an economy that restricts the number of banking licences is assigned a higher score than an economy that issues new banking licences with only prudential requirements.

The restriction categories are then weighted together according to a judgement about their relative economic cost. For example, restrictions on banking licences are weighted more heavily than restrictions on the temporary movement of people. The weights are generally chosen so that total restrictiveness index score ranges from 0 to 1.

An index score is calculated separately for domestic and foreign service suppliers. A *foreign index* is calculated to measure all the restrictions that hinder foreign firms from entering and operating in an economy. It covers both *discriminatory* and *non-discriminatory* restrictions. A *domestic index* represents restrictions that are applied to domestic firms and it generally only covers *non-discriminatory* restrictions (for most services, restrictions do not discriminate against domestic firms). The *difference* between the foreign and domestic index scores is a measure of discrimination against foreigners. Figure 1 provides a stylised illustration of a typical trade restrictiveness index.

**Figure 1 A typical trade restrictiveness index**



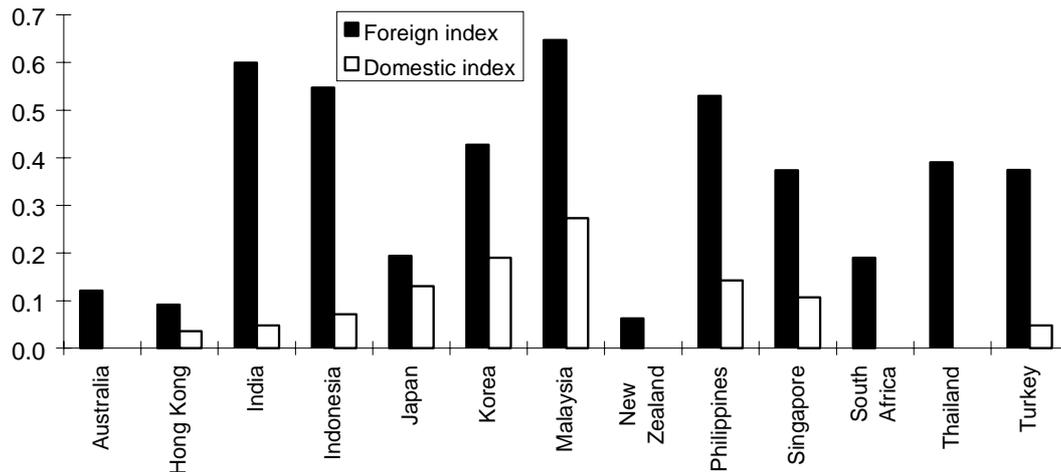
Generally, the results from the restrictiveness indexes showed that Asian and South American economies had medium to high index scores. These economies were also found to be the most discriminatory against foreign service suppliers. European and

North American economies tended to have low to medium index scores. Nevertheless, there were some important exceptions to these general trends, as some of the following examples illustrate.

### Banking

Figure 2 gives a summary of the index scores for banking services in selected economies. In computing the banking index, it was recognised that prudential regulation plays a vital role in ensuring the systemic stability of a banking system. Even though it may raise the operating costs of banks, it is not designed to restrict trade. The index was therefore compiled over non-prudential regulation, consistent with the ‘prudential carve-out’ of the GATS.

**Figure 2 Banking restrictiveness indexes for selected Asia Pacific economies, South Africa and Turkey<sup>a</sup>**



<sup>a</sup> The higher the score the more restrictive an economy. Scores range from 0 to 1.

Source: McGuire and Schuele (2000).

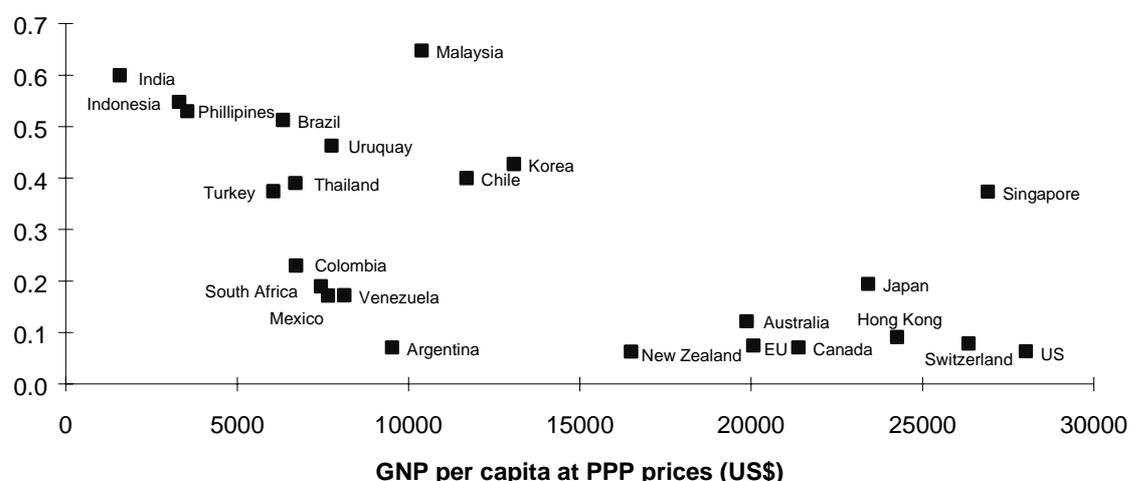
One important qualification is that the information on non-prudential restrictions covering trade in banking services was as at 31 December 1997, prior to significant banking reforms in many countries (including in Australia).

Figure 2 shows that at the time the information was collected, the Asian economies with the most restricted trade in banking services — India, Indonesia, Malaysia and the Philippines — also tended to be those that discriminated most against foreign entrants. Australia’s index incorporates its restrictions on foreign equity participation in Australian banks. Australia’s foreign banking index score, although

relatively low, exceeds that for the United States, Canada and members of the European Union (not shown), primarily for this reason.

The potential significance of discrimination against foreign entrants in banking is illustrated in figure 3. This shows that economies with fewer restrictions against foreign entrants tend to have higher GNP per capita.

**Figure 3 Banking foreign restrictiveness indexes and GNP per capita at PPP prices (1996)<sup>a</sup>**



<sup>a</sup> Purchasing power parity (PPP) prices based on World Bank surveys undertaken since 1993. GNP per capita at PPP prices are used. GNP per capita using official exchange rates tends to undervalue low and middle income economies with relatively low prices (World Bank 1998).

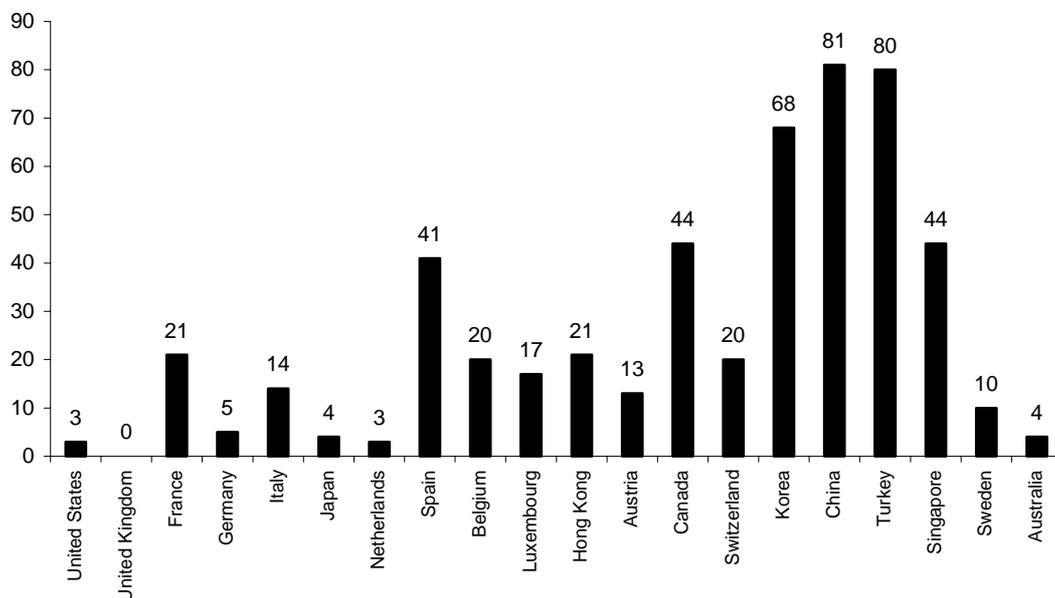
Source: McGuire and Schuele (2000).

Other studies find a similar relationship between the openness of trade and income. Levine (1996) found that economies with financial systems that are better at performing key financial services functions tend to be economically developed, have higher income per capita and grow at a faster pace than those with less developed financial systems. PECC (1995) found a positive relationship between wealth and openness, in that APEC economies with a higher number of GATS commitments also tend to have higher GDP per capita.

### Telecommunications

Figure 4 gives a measure of the total trade restrictiveness index scores for telecommunications in the top twenty services trading nations in 1997. The figure shows a high degree of variation, ‘reflecting the continuing resistance among many countries to the liberalisation of their telecommunications markets’ (Warren 2000a, p. 79).

Figure 4 **Telecommunications trade restrictiveness index for the top-20 services trading nations, 1997<sup>a</sup>**



<sup>a</sup> The higher the score, the greater the degree to which an industry is restricted. The maximum score is 100 per cent. The index is a simple unweighted average of scores for five components measuring restrictions on market access and national treatment in commercial presence and cross-border trade in fixed line and mobile telephony markets.

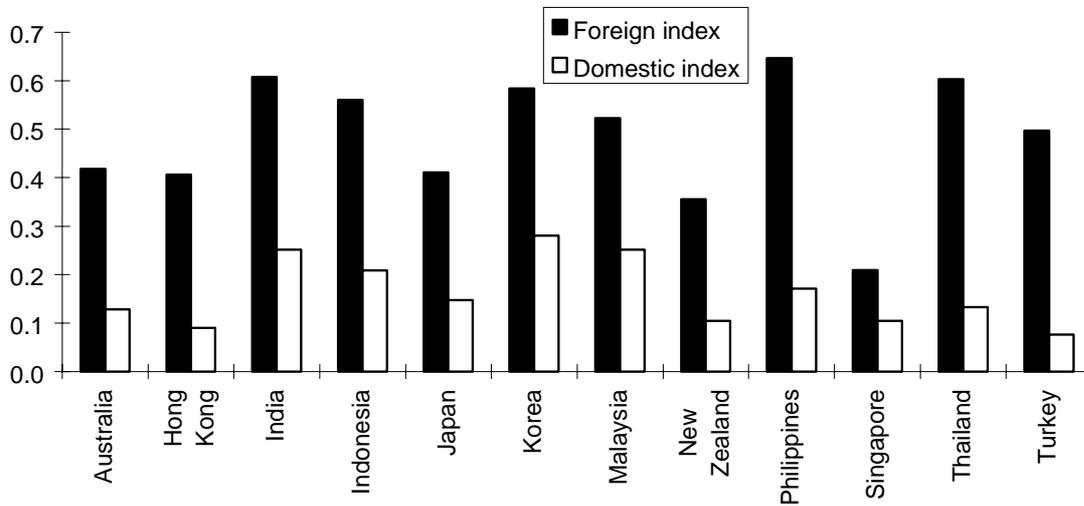
Source: Warren (2000a).

As with banking, there is a relatively strong correlation between the extent of trade restrictiveness and the level of per capita income. The high restrictiveness score for China, for example, is typical of that for a number of low and medium income economies. It also contributes to some of the modelling results highlighted in the next section.

### *Maritime*

In maritime, there tends to be less difference than in banking or telecommunications in the extent of trade restrictiveness between developed and developing countries. All of the 35 economies studied were found to maintain significant restrictions on new entrants, particularly foreign ones, in their maritime services markets (figures 5, 6 and 7). This was based on information on restrictions ranging from 1994 to the end of 1998, in areas such as cabotage, cargo sharing, government treatment of liner shipping conferences, and port services.

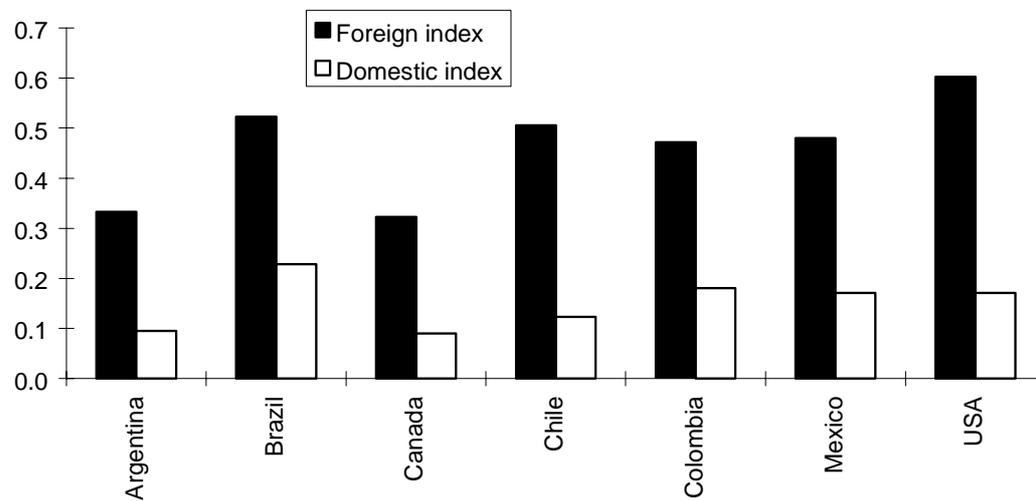
**Figure 5 Maritime restrictiveness indexes for selected Asia Pacific economies and Turkey<sup>a</sup>**



<sup>a</sup> The higher the score the more restrictive an economy. Scores range from 0 to 1.

Source: McGuire, Schuele and Smith (2000).

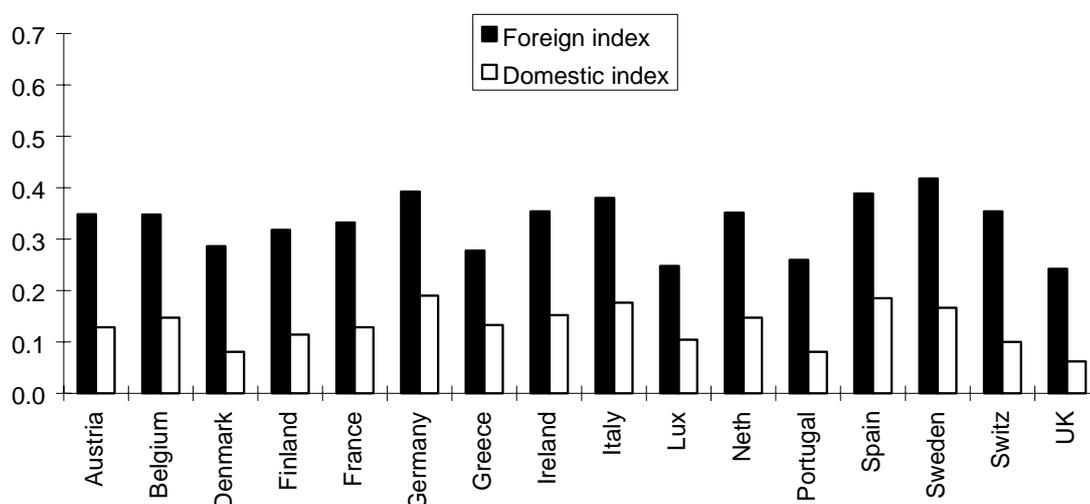
**Figure 6 Maritime restrictiveness indexes for selected American economies<sup>a</sup>**



<sup>a</sup> The higher the score the more restrictive an economy. Scores range from 0 to 1.

Source: McGuire, Schuele and Smith (2000).

Figure 7 Maritime restrictiveness indexes for European economies<sup>ab</sup>



<sup>a</sup> The higher the score the more restrictive an economy. Scores range from 0 to 1. <sup>b</sup> Inland waterways are covered by this study.

Source: McGuire, Schuele and Smith (2000).

Among the developed countries, the United States stood out as having a particularly restrictive trade regime. The *Merchant Marine Act 1920* (the Jones Act) requires that all goods transported by water between US ports be carried in US owned, operated, built and crewed ships. The United States reserves the right to impose retaliatory measures on routes served by US ships as well as routes served by foreign ships but carrying US cargo.

The European economies tended to have lower restrictions on maritime services than the United States, although some of them, such as Luxembourg, are land-locked so the only meaningful restrictions were those applying to inland waterways.

### Estimating the direct effects of services trade restrictions on the economic performance of service firms

The direct effect of restrictions on the economic performance — price, cost, price-cost margin or quantity — of service firms in some sectors has been estimated using econometric techniques.

Typically, an econometric model is developed from economic theory that includes all the relevant determinants of economic performance of service firms in that services sector — industry and economy-wide influences — plus a measure of trade restrictions, as measured by the trade restrictiveness index. The index is a measure of the extent to which service firms are protected from potential competition.

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The econometric model is then used to estimate the determinants of economic performance in that service sector. Wherever possible, the components of the trade restrictiveness index are entered separately, so that the econometrics itself can reveal something about the relative strength of the effects of different types of restrictions. This helps to overcome the judgemental nature of the weights used to combine the index components into a single index initially.<sup>4</sup>

Price and cost measures are calculated from the results of the econometrics and where necessary, a profit or quantity effect is converted to a price or cost effect.

Depending on the performance measure chosen, the results provide an indication of the extent to which restrictions raise price-cost margins, and therefore create economic rents, or raise costs above what they otherwise would be. In reality, however, trade restrictions could have both effects. Indeed, some studies using price-cost margins have provided indirect (and incomplete) evidence of possible cost-raising effects (eg Kalirajan 2000, Nguyen-Hong 2000). Further research is required to quantify these dual effects more fully.

The research team has estimated the effects of market access and national treatment restrictions on:

- the price-cost margins of *banking* services for 27 economies (Kalirajan et al. 2000);
- the price-cost margins for *distribution* services for 18 economies (Kalirajan 2000);
- the price-cost margins for *engineering* services for 20 economies (Nguyen-Hong 2000);
- the cost and price-cost margins for *international air services* (Johnson et al. 2000);
- the trade margins for *maritime* services (Kang 2000);<sup>5</sup> and
- the cost and quantity for *telecommunications* services for up to 136 economies (Trewin 2000 and Warren 2000b).

As with the restrictiveness index results, Asian and South American economies were generally found to have medium to high price and cost effect measures.

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<sup>4</sup> Some suggestions for overcoming econometric problems of entering components separately in the econometrics are given in Dee (2001), and are contrasted with the factor analysis approach used by the OECD (eg Steiner 2000).

<sup>5</sup> Fink et al. (2001) have also quantified the relative importance of public and private trade restrictiveness practices in explaining maritime transport costs.

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European and North American economies tended to have low to medium price and cost effect measures.

A summary of the results from the trade restrictiveness index and econometric work has been included in the Productivity Commission's *Trade and Assistance Review* publications over the last four years. These publications, along with detailed data on the trade restrictiveness indexes and results from the econometric studies, are available without charge on the Productivity Commission's website.

### **3 The benefits of future multilateral services trade liberalisation**

The FTAP model has been used to examine the impact of multilateral liberalisation of services trade. It was developed by the Productivity Commission and is a 19 region (covering in Asia, North and South America and the European Union) by 3 sector (agriculture and food, manufacturing and services) computable general equilibrium model of the world economy. The FTAP model was developed from the Global Trade Analysis Project (GTAP) model (Hertel 1997), with the addition of some structure necessary to support the analysis of services liberalisation.

The theoretical structure of the model covers both FDI and portfolio investment. The model's database contains estimates of FDI stocks and activities of FDI firms on a bilateral basis. The treatment of FDI allows for the examination of the comprehensive removal of restrictions on all modes of service supply, including restrictions on services delivered via commercial presence. Hanslow, Phamduc and Verikios (1999) fully document the structure of the FTAP model.

The first version of the FTAP model was indicative only in its treatment of barriers to services trade. An average of the estimates of barriers to trade in telecommunications and banking services, taken from Kalirajan et al. (2000) and Warren (2000b), was taken to be typical of barriers for the model's services sector as a whole. An area for further research will be to disaggregate FTAP's single services sector into its separate service industries and to model trade barriers for these industries separately.

Because of evidence that barriers to trade in banking and telecommunications services raised prices above costs in those sectors, services trade barriers were incorporated into FTAP as tax equivalents. Restrictions on *establishment* were incorporated as taxes on capital. Restrictions on *ongoing operations* were incorporated as taxes on the output of FDI firms and the exports of firms supplying via the other modes of delivery. Different 'tax' rates applied to domestic and

foreign-owned firms, reflecting discriminatory treatment of foreign-owned entities. The model structure ensured that the revenues (or rents) from these ‘taxes’ were divided appropriately between the government and private agents.

In future, cost-raising restrictions will also be incorporated. But one implication of the current treatment is that the gains from services trade liberalisation are probably understated. If services trade barriers raise prices above costs and create rents for incumbent firms, liberalisation will yield ‘triangle gains’ associated with improvements in allocative efficiency, along with redistributive effects associated with the elimination of rents to incumbents. But if trade barriers raise the real resource cost of doing business, liberalisation could lead to ‘rectangle gains’ associated with a saving of real resources. And rectangle gains are likely to exceed triangle gains by a significant margin, given the importance of the services sectors in most economies.

Dee and Hanslow (2001) used the FTAP model to find that the world as a whole would be projected to be better off by more than US\$260 billion annually (in current dollar terms) as a result of eliminating all post-Uruguay Round trade restrictions. About US\$130 billion would come from liberalising services trade, of which US\$100 billion would accrue in China. US\$50 billion would come from agricultural liberalisation, and US\$80 billion from liberalisation of manufactures. These were the projected gains in real income about 10 years after the liberalisation had occurred and the associated resource adjustments had taken place.

Dee and Hanslow also projected the benefits of *partially* liberalising services trade. The results showed that the greatest global benefits would come from liberalising *market access* restrictions rather than *national treatment* restrictions (refer to table 3). It was found that removing all restrictions on *establishment* would be better than removing all restrictions on *ongoing operations*.

Table 3      **Effects of partial liberalisation on world real income<sup>a</sup>**  
US\$ billion

	<i>Remove restrictions on market access</i>	<i>Remove restrictions on national treatment</i>	<i>Both<sup>b</sup></i>
Remove restrictions to establishment	56.8	3.7	64.2
Remove restrictions on ongoing operations	25.6	12.9	39.3
Both <sup>b</sup>	98.8	19.3	133.4

<sup>a</sup> Projected gains in real income about 10 years after the liberalisation had occurred and the associated resource adjustments had taken place. <sup>b</sup> Because of interaction effects between types of partial liberalisation, the figures for ‘Both’ are not additive.

Source: Dee and Hanslow (2001).

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The results showed, however, that it would be difficult to find an outcome where at least some economies gained and none lost from partial liberalisation, when it involved only removing one class of restriction (market access, national treatment, establishment or ongoing operations). This suggested that the best strategy for liberalisation may be to negotiate gradual reductions in *all* types of restrictions simultaneously.

Dee, Hanslow and Phamduc (forthcoming) looked at the question of which sectors would gain from multilateral services trade liberalisation. A country's services sector itself may not lose from liberalisation because there are competing forces at work.

- Not all services trade barriers discriminate against foreign services suppliers, so the service sector could expand because of new domestic entry.
- Some services trade barriers restrict inward FDI, so the service sector could expand because of new foreign entry.
- Some services barriers discriminate against foreign services delivered cross-border, so the services sector could contract in the face of additional import competition.
- Services trade liberalisation could benefit downstream using industries, and the service sector may lose out in the competition for domestic resources (eg labour).

The net effect was likely to be an expansion in the services sectors in economies where domestic services restrictions were high initially. The benefits to services sectors in economies such as China were projected to be particularly large, because of the focus of the initial work on barriers to banking and telecommunications, and the particularly high barriers to telecommunications trade in China. When trade restrictions in sectors such as maritime are also taken into account, the sectoral and country breakdown of gains are likely to be more even.

Verikios and Zhang (2001) also used the FTAP model to analyse the sectoral impacts of removing restrictions on trade in financial and communication services separately. They found that the total gain in world income from liberalising both sectors would be US\$47 billion (in current dollars), with about US\$24 billion of this coming from liberalising communications services and US\$23 billion from financial services.

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## 4 Agenda for further research

The modelling of services trade in FTAP will be expanded to include the price and cost estimates for sectors beyond banking and telecommunications. More sectoral detail will also be incorporated in FTAP, so as to be able to model the benefits of liberalising each service sector separately and analyse the benefits of cross-sectoral trade offs.

A new collaborative project between the Productivity Commission and the Australian National University will continue to characterise domestic regulatory regimes across countries for selected industries, beyond aviation, electricity and telecommunications. The project will trace the effect of domestic regulation on the economic performance of selected industries.

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# Attachment: Infrastructure services reforms in Australia

## MARKET ACCESS

<i>Year</i>	<i>Policy directions</i>	<i>Key reform action</i>	<i>Comments</i>
<b>FINANCIAL SERVICES</b>			
1980	Banking deregulation.	<ul style="list-style-type: none"> <li>• Removal of interest rate ceilings on all trading and savings bank deposits.</li> </ul>	Bank deregulation flowed from the 1981 Campbell Committee Report.
1982		<ul style="list-style-type: none"> <li>• Withdrawal of bank quantitative lending restrictions.</li> <li>• Easing savings bank regulations.</li> </ul>	
1983	Exchange rate deregulation.	<ul style="list-style-type: none"> <li>• Floating of Australian dollar.</li> <li>• Removal of most foreign exchange controls.</li> </ul>	Further changes to the financial system followed the 1983 Martin Committee Report.
1984	Banking deregulation.	<ul style="list-style-type: none"> <li>• Removal of bank maturity controls.</li> <li>• Removal of remaining bank deposits controls.</li> <li>• Savings banks allowed to offer cheque facilities.</li> </ul>	
	Exchange rate deregulation.	<ul style="list-style-type: none"> <li>• Dealing in foreign exchange widened.</li> </ul>	
	Stock exchange.	<ul style="list-style-type: none"> <li>• Deregulation of Australian Stock Exchange membership.</li> </ul>	In 1987 a national stock exchange was formed.
1986	Banking deregulation.	<ul style="list-style-type: none"> <li>• Removal of most bank interest rate ceilings.</li> <li>• Removal of interest rate ceiling on new housing loans.</li> </ul>	Except those on owner occupied housing loans under \$100 000.

## MARKET ACCESS (continued)

<i>Year</i>	<i>Policy directions</i>	<i>Key reform action</i>	<i>Comments</i>
1991-97	Banking/insurance privatisation.	<ul style="list-style-type: none"> <li>• Privatisation of Commonwealth Bank of Australia.</li> <li>• Privatisation of State banks and insurance offices.</li> </ul>	
1997	Competition.	<ul style="list-style-type: none"> <li>• Allowing banks, credit unions, building societies and life offices to offer superannuation Retirement Savings Accounts.</li> </ul>	This increased choice and competition in the superannuation industry by providing a simple, low cost and low risk superannuation product.
	Competition.	<ul style="list-style-type: none"> <li>• Allowing mergers between the major banks and the largest life insurance companies.</li> </ul>	This was part of the Commonwealth response to the Wallis Inquiry to terminate the 'six pillars' policy. It is expected to increase competitive pressure on the banks and life insurance companies through the threat of takeover. The new 'four pillars' policy prohibits merger among the four major banks.
<b>TELECOMMUNICATIONS</b>			
1989	Partial deregulation.	<ul style="list-style-type: none"> <li>• Increased competition in cabling and wiring of customer premises, PABX maintenance and standard telephone.</li> </ul>	Separation of Telecom's service provider and regulatory functions and a new regulatory framework were also introduced.
1991	Deregulation.	<ul style="list-style-type: none"> <li>• Telecom's monopoly on provision of the standard telephone handset ended.</li> <li>• Introduction of limited infrastructure competition.</li> <li>• Introduction of full resale of telecommunications services.</li> <li>• Government policy established a duopoly on the fixed network until June 1997.</li> </ul>	The <i>Telecommunications Act 1991</i> set out the regulatory arrangements and the structure of the industry for the transition to open competition (July 1991 to June 1997).
1992-93	Competition.	<ul style="list-style-type: none"> <li>• Telecom and OTC merged to form the Australian and Overseas Telecommunications Corporation (AOTC, later Telstra), and AUSSAT was sold to the second national carrier (Optus).</li> </ul>	Telstra Corporation Limited was created in Apr-1993, replacing the previous corporate identity of AOTC.

## MARKET ACCESS (continued)

Year	Policy directions	Key reform action	Comments
1992-93	Competition.	<ul style="list-style-type: none"> <li>• Optus selected as the second national carrier and started operation to provide mobile services, and domestic, long distance and international services.</li> <li>• Vodafone granted licence to commence as third mobile carrier.</li> </ul>	
1996	Competitive tendering.	<ul style="list-style-type: none"> <li>• The Commonwealth competitively tendered the operation and maintenance of the Commonwealth's transmission network.</li> </ul>	This measure introduced competition into a sector previously dominated by Telstra.
1996-1997	Privatisation.	<ul style="list-style-type: none"> <li>• One-third sale of Telstra.</li> <li>• Telstra was floated and shares listed.</li> </ul>	
1997	Competition.	<ul style="list-style-type: none"> <li>• Sale of declared spectrum permitted.</li> </ul>	This facilitated increased competition in telecommunications and improved the management of the radiofrequency spectrum.
	Competition.	<p>Introduction of full and open competition in telecommunications from 1 July 1997:</p> <ul style="list-style-type: none"> <li>• removed all restrictions on the issue of carrier licences;</li> <li>• removed or reduced exclusive rights enjoyed by carriers, and made them subject to competition laws;</li> <li>• provided number portability and carrier pre-selection.</li> </ul>	The <i>Telecommunications Act 1997</i> set out the regulatory framework to achieve the long term objective of an internationally competitive telecommunications industry through full and open competition.
1999	Privatisation.	<ul style="list-style-type: none"> <li>• Sale of further 16.6 per cent of Telstra.</li> </ul>	
	Competition.	<ul style="list-style-type: none"> <li>• Auction of mobile telephony spectrum.</li> </ul>	
2000-01	Competition	<ul style="list-style-type: none"> <li>• Implementation of number portability.</li> </ul>	After some delays, portability for local, local rate and freephone services was implemented in 2000 and for mobile services in 2001.
2001	Competitive tendering.	<ul style="list-style-type: none"> <li>• The delivery of a universal service obligation in regional Australia was subject to a competitive tender process.</li> </ul>	
	Competition.	<ul style="list-style-type: none"> <li>• Auction of spectrum for 3G mobile phone services.</li> </ul>	Auction of datacasting licenses cancelled due to small number of bidders.

## MARKET ACCESS (continued)

Year	Policy directions	Key reform action	Comments
<b>POSTAL SERVICES</b>			
1994-95	Deregulation.	<ul style="list-style-type: none"> <li>Lowering the price threshold at which competition is allowed from \$4.50 to \$1.80 per letter.</li> <li>Permitting private competitors to carry letters of more than 250g (previously 500g).</li> <li>Permitting competitors to carry mail within and between different parts of an organisation.</li> <li>Permitting the carriage of a newspaper, magazine, book catalogue or leaflet whether or not directed to a particular person or address and whether or not enclosed.</li> <li>Deregulating all outgoing international mail and partly, incoming international mail.</li> </ul>	These reforms were provided in the <i>Australian Postal Corporation Amendment Act 1994</i> .
1998		<ul style="list-style-type: none"> <li>Discounts for major mailers using barcodes on bulk mails lodged with Australia Post.</li> </ul>	These are government (non-legislative) decisions in response to the National Competition Council review of the <i>Australian Postal Corporation Act 1989</i> . However, the Bill proposing to introduce greater competition into the postal markets was withdrawn from the parliament in April 2001.
<b>AVIATION SERVICES</b>			
1981	Domestic freight Deregulation.	<ul style="list-style-type: none"> <li>Excluding freight flights from the two airline policy to allow other operators to enter the market.</li> </ul>	This followed recommendation of the Domestic Air Transport Policy Review.
1988	Domestic aviation interim deregulation.	<ul style="list-style-type: none"> <li>Removal of restrictions on Qantas carrying the passengers of other international carriers on domestic routes.</li> <li>Domestic carriers other than Ansett and Australian Airlines permitted to operate large jet domestic charter flights.</li> </ul>	These measures were intended to stimulate competition prior to domestic deregulation in Oct-1990.
1989-95	Deregulation.	<ul style="list-style-type: none"> <li>Western Australia deregulated the intrastate airfreight market in 1989, the intrastate air services in 1991 and non-jet air services in 1995.</li> </ul>	

## MARKET ACCESS (continued)

<i>Year</i>	<i>Policy directions</i>	<i>Key reform action</i>	<i>Comments</i>
1990	Deregulation.	<ul style="list-style-type: none"> <li>• End of two airline policy – the Commonwealth removed controls covering air fares, importation of aircraft, passenger capacity, entry of new operators on domestic trunk routes.</li> </ul>	In 1987 the Commonwealth gave notice that it would terminate the domestic Two Airline policy following the 1986 Morris Review.
1991	Airline privatisation.	<ul style="list-style-type: none"> <li>• A change in Commonwealth policy allowed the sale of 100% of Australian Airlines and 49% of Qantas.</li> </ul>	British Airways purchased 25% of Qantas from Commonwealth.
1992		<ul style="list-style-type: none"> <li>• Commonwealth allowed Qantas to buy 100% of Australian Airlines.</li> </ul>	
1993		<ul style="list-style-type: none"> <li>• Operations of the two airlines were merged and the Commonwealth decided to sell 100% of the merged carrier.</li> </ul>	
1995		<ul style="list-style-type: none"> <li>• Qantas floated and shares listed.</li> </ul>	
1992	Deregulation.	<ul style="list-style-type: none"> <li>• Qantas allowed to re-enter the domestic market after an absence of over 40 years.</li> <li>• Other Australian carriers allowed to compete with Qantas for capacity entitlements on international routes.</li> </ul>	These reforms removed barriers between domestic and international markets.
1991-92	Deregulation.	<ul style="list-style-type: none"> <li>• The Northern Territory Government deregulated intrastate regional airline market and all commuter services.</li> </ul>	
1991-96	Temporary deregulation.	<ul style="list-style-type: none"> <li>• New South Wales Government undertook temporary deregulation of air service routes.</li> </ul>	The temporary deregulation was in response to Hazelton Airlines' withdrawal of its regional services in 1991(cancelled in May 1996).
1996-97	Intrastate air services.	<ul style="list-style-type: none"> <li>• The Tasmanian Transport Commission adopted a more liberal approach to the regulation of air services. Multiple operators allowed to provide intrastate services. Fares, freight rates, timetables and aircraft types were no longer regulated. Operators would be granted licences to operate provided they have the appropriate safety accreditation from the Civil Aviation Safety Authority.</li> </ul>	

## MARKET ACCESS (continued)

<i>Year</i>	<i>Policy directions</i>	<i>Key reform action</i>	<i>Comments</i>
1997-98	Airport privatisation.	<ul style="list-style-type: none"> <li>• Sale of long-term leases over 17 airports to private operators.</li> </ul>	The privatisation was accompanied by other measures considered by the Government to be necessary to encourage competition, including restrictions on cross-ownerships of certain airport pairs and limitations on airline ownership of airports.
<b>MARITIME SERVICES – NATIONAL</b>			
1984-96	Coastal shipping financial assistance.	<ul style="list-style-type: none"> <li>• Coastal shipping – the Commonwealth provided various financial/tax incentives to encourage investment in new ships and reduce crew levels.</li> </ul>	In May-1997 the Shipping Reform Group report recommended a package of reform measures for the industry.
1989-92	Stevedoring labour market reform.	<p>The Waterfront Industry Reform Authority (WIRA) was established. The WIRA reforms included:</p> <ul style="list-style-type: none"> <li>• introducing enterprise employment in place of industry-wide arrangements;</li> <li>• abolishing industry-wide dispute settlement processes;</li> <li>• introducing a retirement and redundancy program; and</li> <li>• developing a single industry award with some conditions negotiated at workplace (enterprise) levels.</li> </ul>	<p>The first enterprise agreement approved by WIRA was National Terminals in Jan-1991.</p> <p>The WIRA reforms involved a substantial reduction in waterfront employment (4500 employees).</p> <p>The redundancy program was funded by a Commonwealth contribution of \$145 million and users of stevedoring through a levy imposed on cargo of \$254 million.</p>
1989	Towage industry – crew reduction.	<ul style="list-style-type: none"> <li>• Under the towage industry program, harbour tug crew size was reduced from eight to four and on ocean going tugs the crew size was reduced from fourteen to nine.</li> </ul>	
1998-99	Privatisation.	<ul style="list-style-type: none"> <li>• Most businesses of the Commonwealth’s shipping line – ANL – were sold.</li> </ul>	Vessel leases of Australian River Company remained in Commonwealth ownership.
1998 ongoing	Stevedoring labour market reform.	<p>Waterfront reform package:</p> <ul style="list-style-type: none"> <li>• specified performance objectives for the water front.</li> <li>• introduced a redundancy program funded by a levy on cargo. The levy was raised from \$250 million to \$300 million in 1999.</li> </ul>	The performance objectives include ending of manning and restrictive work practices; raising container crane productivity; improving reliability and industrial disputation; lowering workplace injury, assisting to reduce costs in logistic chains; making effective use of technology; and promoting training programs.

## MARKET ACCESS (continued)

Year	Policy directions	Key reform action	Comments
<b>SHIPPING AND PORTS – VICTORIA</b>			
1996	Privatisation.	<ul style="list-style-type: none"><li>• Sale of Portland and Geelong Port.</li></ul>	The sale of Portland port required the purchaser to reduce usage charges at the port by 20% over a four year period. MPS provided contestable services (such as mooring, dredging, cleaning, security services, etc) in the Port of Melbourne.
1996-97	Privatisation.	<ul style="list-style-type: none"><li>• Melbourne Port Services (MPS) privatised.</li></ul>	
<b>SHIPPING AND PORTS – WESTERN AUSTRALIA</b>			
1998	Competition.	<ul style="list-style-type: none"><li>• The <i>Port Authorities Act 1998</i> repealed previous restrictive local Acts on market conduct and entry.</li></ul>	
<b>SHIPPING AND PORTS – SOUTH AUSTRALIA</b>			
2000	Privatisation.	<ul style="list-style-type: none"><li>• Government decision to lease/sale of the South Australia Ports Corporation</li></ul>	

Sources: IC (1998), NCC (2001), APEC (2001) and PC (2001b).

## NATIONAL TREATMENT

<i>Year</i>	<i>Policy directions</i>	<i>Key reform action</i>	<i>Comments</i>
<b>FINANCIAL SERVICES</b>			
1985	Banking deregulation.	<ul style="list-style-type: none"> <li>Foreign banks invited to set up in Australia as subsidiaries but not branches.</li> </ul>	This was originally limited to 16 licences. The first foreign bank started business in Sep-1985.
1992		<ul style="list-style-type: none"> <li>Liberalised foreign bank entry.</li> </ul>	This followed the Martin Committee inquiry into banking.
1993		<ul style="list-style-type: none"> <li>Foreign banks allowed to establish branches.</li> </ul>	
1997		<ul style="list-style-type: none"> <li>Removal of prohibition on foreign takeover of major banks, as part of the termination of the 'six pillars' policy.</li> </ul>	Takeover subject to the principle that large scale transfer of financial system into foreign hands would be contrary to the national interest.
<b>TELECOMMUNICATIONS</b>			
1998	Foreign investment.	<ul style="list-style-type: none"> <li>Removal of foreign ownership restrictions specific to Optus and Vodafone.</li> </ul>	Foreign investment in Optus and Vodafone is now subject only to the generally applicable provisions of foreign investment policy.
1999		<ul style="list-style-type: none"> <li>Foreign investors (in aggregate) can own up to 17.47 per cent in Telstra (individual foreign investors up to 2.5 per cent).</li> </ul>	This was part of the second sale of Telstra.
<b>AVIATION SERVICES</b>			
1989	International aviation bilateral liberalisation.	<ul style="list-style-type: none"> <li>The policy approach to negotiating bilateral air service agreements changed from protecting the rights of Qantas to maximising the welfare of users and Australia as a whole.</li> </ul>	
1990	Deregulation.	<ul style="list-style-type: none"> <li>The Commonwealth removed restrictions on international freight charter flights.</li> </ul>	In 1987 the Commonwealth announced termination of the domestic two airline policy following the 1986 Morris Review.
1992	International aviation bilateral liberalisation.	<p>Australia-New Zealand – single aviation market provided:</p> <ul style="list-style-type: none"> <li>Multiple designation regime.</li> <li>Exchange of interlining rights but not cabotage.</li> <li>Access to domestic routes by either country's carriers.</li> <li>Exchange of international beyond rights.</li> </ul>	Memorandum of Understanding was signed 1 August 1992.

## NATIONAL TREATMENT (continued)

Year	Policy directions	Key reform action	Comments
	International aviation bilateral liberalisation.	<ul style="list-style-type: none"> <li>• Introduction of multiple designation policy.</li> <li>• Establishment of the International Air Services Commission (IASC) to allocate international capacity between Australian carriers within constraints of bilateral arrangements.</li> </ul>	The IASC allocation process was required to take into account the objective of improving competition in the provision of international aviation services.
1993	Foreign investment.	<ul style="list-style-type: none"> <li>• British Airways purchased 25% of Qantas from Commonwealth.</li> </ul>	This was part of the privatisation of airlines in 1991.
1996	Foreign investment.	<ul style="list-style-type: none"> <li>• Approval of acquisition by Air New Zealand of 50 per cent equity interest in Ansett.</li> </ul>	
1996-97	International aviation bilateral liberalisation.	<ul style="list-style-type: none"> <li>• Increased liberalisation of bilateral arrangements through successful negotiations with 18 countries including four new bilateral air service agreements.</li> </ul>	This should increase competition and numbers of services for passengers. Exporters benefit from increased availability of dedicated freight entitlements under bilateral arrangements.
1997-98	Foreign investment.	<ul style="list-style-type: none"> <li>• The <i>Airports Act 1996</i> permitted foreign investment in individual federal airports up to 49 per cent.</li> </ul>	This was part of the privatisation of airports. Until 1997-98, government ownership of airports excluded foreign ownerships.
1999	International aviation bilateral liberalisation.	<p>The Government announced its decisions to further liberalise international aviation services. Australia will:</p> <ul style="list-style-type: none"> <li>• offer foreign airlines unrestricted access to all international airports except Sydney, Melbourne, Brisbane and Perth – foreign airlines operating services to regional Australia will have unlimited capacity, codeshare and own stopper rights;</li> <li>• seek to negotiate bilateral ‘open skies’ agreement with like minded countries;</li> <li>• liberalise foreign ownership rules, except for Qantas;</li> <li>• offer unrestricted access to all international airports for dedicated freighters;</li> <li>• propose multilateral liberalisation of international aviation through the General Agreement on Trade in Services,</li> <li>• aim to achieve a liberal regime in designating airlines;</li> <li>• reform roles and responsibilities of IASC.</li> </ul>	These decisions were the Government response to recommendations of the Productivity Commission’s Inquiry on International Aviation Services. However, the Government disagreed with the recommendation to remove restrictions on cabotage.

## NATIONAL TREATMENT (continued)

<i>Year</i>	<i>Policy directions</i>	<i>Key reform action</i>	<i>Comments</i>
	International and domestic aviation foreign investment.	<ul style="list-style-type: none"> <li>• Lifting foreign ownership limits in Australian international carriers (other than Qantas) to 49 per cent.</li> <li>• Foreigners can expect to acquire up to 100 per cent of equity in an Australian domestic airline, or establish domestic aviation services, subject to national interests test.</li> <li>• Virgin airline received approval to establish domestic aviation service in Dec-1999.</li> </ul>	<p>Previous foreign ownership limits for Australian international airlines were 25 per cent for individuals and 35 per cent for aggregate foreign interests.</p> <p>Previous foreign ownership limits for domestic airlines were 25 per cent for individuals and 40 per cent for aggregate foreign interests.</p>
2000	International aviation bilateral liberalisation.	<p>‘Open Skies’ agreement between Australia and New Zealand:</p> <ul style="list-style-type: none"> <li>• removed remaining restrictions on flights across the Tasman to third countries;</li> <li>• permitted seventh freedom rights for freight services;</li> <li>• formalised the 1996 Single Aviation Market arrangements, including removal of cabotage restrictions.</li> </ul>	<p>This is Australia’s first ‘open skies’ agreement. Australia and New Zealand also agreed to:</p> <ul style="list-style-type: none"> <li>• examine possibility of introducing seventh freedom rights for passenger services; and</li> <li>• recognise safety approvals mutually by 2003.</li> </ul>
	Foreign investment.	<ul style="list-style-type: none"> <li>• Approval of acquisition by Air New Zealand of 50 per cent equity interest in Ansett.</li> </ul>	
	International aviation pricing.	<ul style="list-style-type: none"> <li>• Providing for voluntary submission of tariff applications and automatic approval.</li> </ul>	This reduced government interference in setting of airfares.
2001	Domestic aviation (cabotage).	<ul style="list-style-type: none"> <li>• Temporary dispensation of cabotage restrictions for 16 foreign airlines to provide domestic aviation services.</li> </ul>	This was part of the Government response to cessation of Ansett services (cancelled in Dec-2001).
<b>MARITIME SERVICES – NATIONAL</b>			
1989-90	Coastal shipping voyage permit.	<p>Relaxation of the coastal voyage permit system:</p> <ul style="list-style-type: none"> <li>• Single voyage permit can be issued when there is a one-off unavailability of suitable Australian flag vessels.</li> <li>• Continuous voyage permit can be issued where there is a lack of suitable Australian shipping in an extended period.</li> </ul>	The coastal shipping policy requires that cargo transported around the Australian coast be carried on Australian flag vessels with Australian crews (cabotage restriction). Introduction of flexible permit arrangements allowed, in a limited way, foreign ships to trade on Australian coast.

Sources: IC (1998), NCC (2001), APEC (2001) and PC (2001b).

## DOMESTIC REGULATION

Year	Policy directions	Key reform action	Comments
<b>FINANCIAL SERVICES</b>			
1985 onward	Prudential regulation.	<ul style="list-style-type: none"> <li>The Reserve Bank began to adapt the prudential requirements to the deregulated environment.</li> </ul>	Statutory Reserve Deposits requirements were phased out in favour of the Prime Assets Ratio.
1989	Prudential regulation.	<ul style="list-style-type: none"> <li>Formalising the Reserve Bank's powers in relation to prudential supervision of banks.</li> </ul>	This was provided by Part II, Division 1A of the <i>Banking Act</i> .
1992	Prudential regulation.	<ul style="list-style-type: none"> <li>Introduction of prudential guidelines for building societies and credit unions.</li> </ul>	
1994	Prudential regulation.	<ul style="list-style-type: none"> <li>New South Wales and South Australia referred their banking powers to the Commonwealth.</li> </ul>	This allowed the Reserve Bank to supervise the State Bank of NSW and Bank South Australia.
1996	Uniform regulation.	<ul style="list-style-type: none"> <li>Introduction of a national uniform consumer credit code to standardise credit practice throughout Australia.</li> </ul> <p>Commonwealth response to the Wallis Inquiry to establish a new framework for regulation of the financial system:</p>	<p>The national code reduced unnecessary controls and replaced prescriptive regulation of contracts.</p> <p>The new measures aimed at improving efficiency and contestability in financial markets.</p>
1998	Separation of regulatory responsibilities.	<p>Implementation of the first stage of the 'Wallis' reform:</p> <ul style="list-style-type: none"> <li>The Reserve Bank of Australia is responsible for payments system regulation, systemic stability and monetary policy.</li> <li>The Australian Prudential Regulation Authority (APRA) is responsible for prudential regulation of deposit taking institutions, life and general insurance and superannuation.</li> <li>The Australian Securities and Investments Commission (ASIC) is responsible for market integrity, consumer protection and corporations.</li> <li>Streamlining of regulatory requirements applying to shareholding in financial services companies.</li> </ul>	This created a regulatory framework based on separate functional responsibilities (rather than by types of products) and is expected to improve effectiveness, transparency and accountability of regulatory institutions.

## DOMESTIC REGULATION (continued)

Year	Policy directions	Key reform action	Comments
1999	Prudential regulation.	<p>Implementation of the second stage of the ‘Wallis’ reform:</p> <ul style="list-style-type: none"> <li>• States and Territories transferred regulatory responsibility of credit unions, building societies and friendly societies to Commonwealth regulators (APRA and ASIC).</li> <li>• Regulation of credit unions and building societies were brought into line with regulation of deposit-taking institutions.</li> <li>• A new mechanism was established to facilitate transfer of business from one deposit taking institution to another.</li> <li>• A single regulatory framework for life insurance companies and friendly societies was established.</li> </ul>	<p>The transfer covered 342 financial institutions with \$38 billion in assets.</p> <p>These reforms allowed non-bank deposit taking institutions to provide a more effective source of competition to the banks in the retail market by creating the same regulatory structure for both, while retaining their own corporate structures (building societies, mutuality and friendly societies) and commercial flexibility.</p>
2001	Consumer protection.	<p>The <i>Financial Services Reform Act 2001</i>:</p> <ul style="list-style-type: none"> <li>• harmonise licensing, disclosure and conduct framework among all financial services providers.</li> <li>• introduce a consistent and comparable disclosure framework for financial products.</li> <li>• streamline the regulatory framework for financial markets and exchange and clearing facilities.</li> </ul>	<p>This is expected to reduce duplication and complexity in the regulatory framework. Lower compliance costs also reduce barriers to entry.</p>
<b>TELECOMMUNICATIONS</b>			
1975	Separation.	<ul style="list-style-type: none"> <li>• Telecommunications arm of the Postmaster-General’s Department separated to become the Australian Telecommunications Commission (Telecom).</li> </ul>	
1989	Separation.	<ul style="list-style-type: none"> <li>• Separation of Telecom’s service provider and regulatory functions.</li> <li>• AUSTEL was established as an independent industry regulator with responsibility for economic and technical regulation of Australian telecommunications.</li> </ul>	<p>This was part of the move to provide increased competition in cabling and wiring of customer premises, PABX maintenance and standard telephone.</p>

## DOMESTIC REGULATION (continued)

Year	Policy directions	Key reform action	Comments
1993	Third-party access.	<ul style="list-style-type: none"> <li>Regulatory provisions for third-party access to broadband cable tabled in Parliament.</li> </ul>	
1995	Third-party access.	<ul style="list-style-type: none"> <li>Third-party access regime established for service providers in relation to broadband cable infrastructure.</li> </ul>	The third-party access regime allowed service providers access to broadband cable for the provision of telephony and broadband services with limited exemptions.
1994	Uniform regulation.	<ul style="list-style-type: none"> <li>A new telecommunication code specified national technical, design, safety, environmental and other standards.</li> </ul>	The code facilitated a national network roll-out by establishing a uniform national regulatory regime.
1997	<p>Third-party access.</p> <p>Competition.</p> <p>Standards.</p> <p>Consumer protection.</p> <p>Regulatory arrangements.</p>	<p>The introduction of full competition in 1997 also provided for:</p> <ul style="list-style-type: none"> <li>Establishment of a telecommunication specific third-party access regime.</li> <li>Establishment of a telecommunication specific anti-competitive conduct code.</li> <li>Greater industry involvement in determining industry codes and standards.</li> <li>Tightening of certain consumer protection measures, procedures to facilitate consumer changing providers, and price caps at the retail level.</li> <li>Transfer of economic and third-party access regulation to the main competition agency (ACCC).</li> <li>Merging AUSTEL with the Spectrum Management Agency to form the Australian Communications Authority (ACA).</li> </ul>	The <i>Telecommunications Act 1997</i> set out the regulatory framework to achieve the long term objective of an internationally competitive telecommunications industry through full and open competition. It provided for increased industry self-regulation through codes of practice, with the ACA having the ability to intervene where necessary. The ACA is responsible for technical and consumer matters and management of the radiofrequency spectrum.
<b>POSTAL SERVICES</b>			
1975	Separation.	<ul style="list-style-type: none"> <li>Postal arm of the Postmaster-General's department separated to become the Australian Postal Commission.</li> </ul>	The Australian Postal Commission (Australia Post) became a government business enterprise.
1988	Separation and corporatisation	<ul style="list-style-type: none"> <li>Removal of government day-to-day controls.</li> <li>Revised corporate and financial structures.</li> <li>New planning and accountability mechanisms.</li> </ul>	The May Economic' Statement outlined reforms of government business enterprises, which covered Australia Post.

## DOMESTIC REGULATION (continued)

Year	Policy directions	Key reform action	Comments
1989	Corporatisation.	<ul style="list-style-type: none"> <li>• Australia Post was corporatised under the Commonwealth Government Business Enterprise reform process.</li> </ul>	
1994	Interconnection to postal network	<ul style="list-style-type: none"> <li>• Allowing interconnection with Australia Post's network.</li> </ul>	This was provided as part of the deregulation package in the Australian Postal Corporation Amendment Act 1994.
1996	Interconnection to postal network.	<ul style="list-style-type: none"> <li>• Providing a mechanism for business to negotiate bulk rates with Australia Post based on final delivery locations.</li> </ul>	
1997 ongoing	Administrative and corporate reform.	<ul style="list-style-type: none"> <li>• Closer alignment of accountability arrangements with the general accountability arrangements prevailing for private sector firms.</li> <li>• On going assessment of the scope to bring any functions of the government business enterprise that are primarily administrative in character back under Ministerial control.</li> <li>• More effective shareholder monitoring of the financial performance of the government business enterprise.</li> </ul>	These revised governance arrangements followed the Humphrey 'Review of Government Business Enterprise Governance' report in Mar-1997.
	Community service obligations.	<ul style="list-style-type: none"> <li>• All community service obligations (CSOs) to be budget funded rather than funded through internal cross-subsidies.</li> </ul>	The provision of a universal letter service at a uniform price was considered to be a universal service obligation (USO) not a CSO. USO will continue to be funded by cross-subsidies.
1998		<ul style="list-style-type: none"> <li>• Introduction of an industry code of practice for the treatment of bulk mail lodged with Australia Post</li> </ul>	These are government (non-legislative) decisions in response to the National Competition Council review of the <i>Australian Postal Corporation Act 1989</i> . However, the Bill proposing to introduce competition into the postal markets was withdrawn from the parliament in April 2001.
<b>AVIATION SERVICES</b>			
1958-93	Airports/transfer of facilities.	<ul style="list-style-type: none"> <li>• Aerodrome Local Ownership Plan (ALOP) – Commonwealth transferred the operation of aerodromes to local ownership.</li> </ul>	The Government expected that local airports were best owned and operated by the local community. In 1991 all ownership and funding responsibility was transferred to local operators.

## DOMESTIC REGULATION (continued)

<i>Year</i>	<i>Policy directions</i>	<i>Key reform action</i>	<i>Comments</i>
1988	Airports and air safety/ separation and commercialisation.	<ul style="list-style-type: none"> <li>The Commonwealth removed airport activities from departmental control and budget funding by separating airport management activities from air traffic control and navigation. Control of civil airports and regulation of safety matters was transferred to separate agencies: <ul style="list-style-type: none"> <li>Federal Airports Corporation (FAC) to control main civil airports.</li> <li>Civil Aviation Authority (CAA) responsible for safety and regulatory control.</li> </ul> </li> </ul>	<p>The FAC was to: provide airport facilities appropriate to community needs; operate airports on a sound commercial basis; and develop and manage airports to meet present and future needs in a safe, efficient, effective and economic manner.</p> <p>In Jul-1991 the FAC became liable to pay income tax.</p> <p>In Jul-1988 the CAA was established as a government business enterprise and in Jul-1991 was made subject to income tax.</p>
1992	Airport third-party access.	<ul style="list-style-type: none"> <li>Decision to develop common user facilities at Sydney, Melbourne and Coolangatta airports.</li> </ul>	This was prompted by Trade Practices Commission (TPC) concern about the role of terminal access in the Compass Airline collapse.
1995	Separation.	<ul style="list-style-type: none"> <li>The Civil Aviation Authority was separated into: <ul style="list-style-type: none"> <li>Airservices Australia – a Commonwealth business enterprise to provide air traffic services in Australia; and</li> <li>the Civil Aviation Safety Authority – exclusively responsible for air safety.</li> </ul> </li> </ul>	
1996 ongoing	Third-party access.	<ul style="list-style-type: none"> <li>Proposal to provide third-party access for international freight operations at Sydney and Melbourne Airports.</li> </ul>	The National Competition Council received an application for declaration of services related to international freight operations.
1997-98	Pricing.	<ul style="list-style-type: none"> <li>Price oversight arrangements of airports applied.</li> <li>Previous pricing approach to airports (single till) not mandated.</li> <li>Retention of profits from non-aeronautical services allowed.</li> </ul>	These measures were introduced as part of the privatisation of airports in 1997-98.
2001	Pricing.	<ul style="list-style-type: none"> <li>Removal of price caps on aeronautical charges at 8 airports.</li> </ul>	This was part of the Government response to cessation of Ansett services.

## DOMESTIC REGULATION (continued)

<i>Year</i>	<i>Policy directions</i>	<i>Key reform action</i>	<i>Comments</i>
<b>MARITIME SERVICES – NATIONAL</b>			
1989	Corporatisation.	<ul style="list-style-type: none"> <li>• Corporatisation of the Commonwealth shipping line (ANL).</li> </ul>	
1991	Restructuring	<ul style="list-style-type: none"> <li>• The decision to sell ANL was reversed and a new board was appointed to reconstruct the company.</li> </ul>	In Nov-1995 the Commonwealth announced that ANL had to be restructured prior to any sale.
1996	Restructuring	<ul style="list-style-type: none"> <li>• ANL was restructured. Measures included: exit from the Europe trade and sale of the Australian Venture; sale of ANL's 50% share holding in Coastal ExpressLine; and sale of its Brisbane container operation.</li> </ul>	ANL also commenced the first phase of a rationalisation of corporate structure and staffing. ANL was eventually privatised in 1998-99.
<b>SHIPPING AND PORTS – NEW SOUTH WALES</b>			
1989-90	Separation, pricing, commercialisation and contracting out.	<ul style="list-style-type: none"> <li>• Reorganisation of the Maritime Services Board with a commercial focus. Three subsidiary port authorities were also established. Pricing reform was undertaken with the aim of introducing user-pays principles and the removal of cross-subsidies. Coal and bulk loading operations in Newcastle were transferred to the private sector.</li> </ul>	These administrative reforms were to improve governance and performance of the government service provider.
1990-91	Separation and divestment.	<ul style="list-style-type: none"> <li>• The landlord model of port management was adopted. Commercial, non-commercial and regulatory functions were separated. Non-core assets and responsibilities were divested. The Port Kembla coal loader was leased to the private sector.</li> </ul>	Separation of activities was accompanied by divestment of non-core activities and contracting out.
1991-92	Rationalisation.	<ul style="list-style-type: none"> <li>• Closure of the Balmain Coal Loader and Goat Island shipyard. Staff rationalisation and relocation of marine operations.</li> </ul>	
1993-94	Rationalisation contracting out.	<ul style="list-style-type: none"> <li>• Sydney maintenance workshop closed. Increased contracting out of services.</li> </ul>	

## DOMESTIC REGULATION (continued)

Year	Policy directions	Key reform action	Comments
1995	Corporatisation and separation.	<ul style="list-style-type: none"> <li>• Maritime Services Board was dissolved and replaced by three independent port corporations – Sydney, Newcastle and Port Kembla – and the Waterways Authority.</li> <li>• Regulatory functions were separated and transferred to the new Office of Marine Administration.</li> </ul>	This resulted in better defined commercial objectives and freedom to compete for business.
1995-96 ongoing	Commercialisation.	<ul style="list-style-type: none"> <li>• Implementation of a new capital structure for the port corporations – based on commercial principles.</li> <li>• Regular performance monitoring.</li> <li>• Introduction of a tax equivalent regime, risk-related borrowing fees and regulation equivalent.</li> <li>• Explicit funded community services obligations.</li> </ul>	
2000	Rationalisation.	<ul style="list-style-type: none"> <li>• Abolition of the Marine Ministerial Holding Corporation</li> </ul>	
2001	Rationalisation.	<ul style="list-style-type: none"> <li>• The Darling Harbour Authority is to be absorbed into the Sydney Harbour Foreshore Authority.</li> </ul>	
<b>SHIPPING AND PORTS – VICTORIA</b>			
1990	Pricing.	<ul style="list-style-type: none"> <li>• Port service charges aligned more closely to costs.</li> </ul>	
1993	Commercialisation.	<ul style="list-style-type: none"> <li>• The Melbourne, Geelong and Portland Port Authorities were declared as ‘reorganising bodies’ under the <i>State Owned Enterprises Act 1992</i> and commercial boards appointed.</li> </ul>	
1994	Pricing.	<ul style="list-style-type: none"> <li>• Port authority charges were reduced, state tonnage duty abolished and wharfage charges at the Port of Melbourne reduced by 15%.</li> </ul>	
1995	Separation.	<ul style="list-style-type: none"> <li>• Non commercial community ports were removed from port authority controls and placed under the management of local committees and with separate budget funding.</li> </ul>	

## DOMESTIC REGULATION (continued)

Year	Policy directions	Key reform action	Comments
1995-96	Separation.  Third-party access.	<p>The <i>Port Services Act 1995</i>:</p> <ul style="list-style-type: none"> <li>• Disaggregated the Port of Melbourne Authority into the Melbourne Port Corporation (MPC) and the Victorian Channels Authority (VCA). The MPC acted as a port landlord.</li> <li>• Separated regulatory functions from port corporations.</li> <li>• Established a third-party access regime.</li> </ul>	In 1997, the National Competition Council certified that the Victorian access regime to shipping channels is effective.
1996-97	Contracting out.  Competitive neutrality.	<ul style="list-style-type: none"> <li>• Port of Hastings management contracted out to a private operator.</li> <li>• The Melbourne Port Corporation and the Victorian Channels Authority were subject to a tax equivalent regime, a levy to offset government guarantees and all State and Commonwealth regulations.</li> </ul>	<p>The initial contract was for 10 years with an option for a further 5 years.</p> <p>These measures created a more equal footing between public and private operators.</p>
<b>SHIPPING AND PORTS – QUEENSLAND</b>			
1994	Corporatisation	<ul style="list-style-type: none"> <li>• Corporatisation of Brisbane Port Authority, Gladstone Port Authority and Ports Corporation of Queensland. The <i>Government Owned Corporations Act 1993</i> allowed for direct funding of CSOs and payment of tax equivalents.</li> </ul>	
1995	Corporatisation.	<ul style="list-style-type: none"> <li>• Corporatisation of Cairns, Townsville, Mackay, Rockhampton and Bundaberg Port Authorities.</li> </ul>	
<b>SHIPPING AND PORTS – WESTERN AUSTRALIA</b>			
1990-91	Pricing.	<ul style="list-style-type: none"> <li>• User-pays port charges introduced in Fremantle and Bunbury.</li> </ul>	

## DOMESTIC REGULATION (continued)

<i>Year</i>	<i>Policy directions</i>	<i>Key reform action</i>	<i>Comments</i>
1993	Commercialisation.	<ul style="list-style-type: none"> <li>The <i>Ports (Functions) Act</i> provided a commercialised legal structure for State port authorities.</li> </ul>	This covered Albany, Bunbury, Dampier, Esperance, Fremantle, Geraldton and Port Hedland.
1995	Outsourcing.	<ul style="list-style-type: none"> <li>The state run shipping service was closed and a private sector contractor was engaged to provide regular shipping services to the State's North West.</li> <li>Dampier and Wyndham port pilotage services were outsourced.</li> </ul>	
1996	Commercialisation.	<ul style="list-style-type: none"> <li>Fremantle Port Authority commercialised.</li> <li>Bunbury Port Authority commercialised.</li> </ul>	
1996	Competition.	<ul style="list-style-type: none"> <li>Port authorities subject to State and local government taxes.</li> </ul>	
<b>SHIPPING AND PORTS – SOUTH AUSTRALIA</b>			
1993	Pricing.	<ul style="list-style-type: none"> <li>The Marine and Harbours Agency pricing policy was revised.</li> </ul>	
1995	Corporatisation.	<ul style="list-style-type: none"> <li>The South Australia Ports Corporation was subject to a tax equivalent regime.</li> </ul>	The South Australia Ports Corporation was formed after restructuring of the Marine and Harbours Agency.
1994-95	Pricing.	<ul style="list-style-type: none"> <li>Further pricing reforms – based solely on commercial considerations with an increased focus on user-pays.</li> </ul>	
1996	Third-party access.	<ul style="list-style-type: none"> <li>Establishment of an access regime for bulk handling facilities.</li> </ul>	Facilitated the sale of the bulk handling facilities operated by the Ports Corporation and ensured that third party access to the facilities was on fair commercial terms.
	Third-party access.	<ul style="list-style-type: none"> <li>Proposals to introduce a third-party access regime for maritime services.</li> </ul>	South Australia sought certification from National Competition Council to introduce a third-party access regime.

## DOMESTIC REGULATION (continued)

Year	Policy directions	Key reform action	Comments
2001	Pricing.	<ul style="list-style-type: none"> <li>The <i>Maritime Services (Access) Act</i> 2001 introduced regulation of prices of certain essential maritime services, including a price cap.</li> </ul>	
<b>SHIPPING AND PORTS – TASMANIA</b>			
1993	Commercialisation.	<ul style="list-style-type: none"> <li>Competitive neutrality principles were introduced to Tasmania's main port authorities by requiring income tax equivalent payments and guarantee fees. CSOs were recognised and separately funded.</li> </ul>	
1997	Corporatisation divestment and separation.	<p>Comprehensive revision to maritime legislation:</p> <ul style="list-style-type: none"> <li>Repealed 28 Acts and established various port authorities in Tasmania as separate entities under Corporations Law.</li> <li>Established the prime responsibility of the ports as trade facilitation, while operating in accordance with sound commercial practice.</li> <li>Divested non-commercial activities of ports allowing them to concentrate on their core business.</li> <li>Established the Marine and Safety Authority, which assumed the regulatory and non-commercial functions of the Navigation and Survey Authority of Tasmania.</li> </ul>	These measures were expected to increase the commercial focus of the ports and generate greater efficiencies in the services provided. Ports would no longer be required to focus on regulatory or non-commercial matters. As the ports would operate fully under Corporations Law, they would be placed on an equal footing with the private sector.
	Competitive neutrality.	<ul style="list-style-type: none"> <li>A tax-equivalent and debt guarantee fee regime replaced the previous partial regime.</li> <li>Dividend payments expected to be made to the Government</li> </ul>	
<b>SHIPPING AND PORTS – NORTHERN TERRITORY</b>			
1993	Enterprise agreement.	<ul style="list-style-type: none"> <li>Darwin port was the first port to renegotiate a second round of enterprise based agreements.</li> </ul>	In 1994 a new enterprise agreement was introduced at the Port Authority with increased flexibility in employment of staff.

## DOMESTIC REGULATION (continued)

Year	Policy directions	Key reform action	Comments
1994	Restructuring and divestment.	<ul style="list-style-type: none"> <li>Darwin Port Authority adopted the landlord model. Port Authority land not required for core business and repairs and maintenance was transferred to the private sector.</li> </ul>	
1996	Private provision of services.	<ul style="list-style-type: none"> <li>The <i>Marine Act</i> permitted the appointment of private surveyors of ships radio equipment, private examiners for deck certificates and private compass adjustors.</li> </ul>	
	Commercialisation.	<ul style="list-style-type: none"> <li>The Darwin Port Authority became a Government Business Division and was required to pursue cost-efficiency and operate in a commercially oriented manner with a commercial board of directors.</li> </ul>	These reforms were provided under the <i>Financial Management Act</i> . All shipping services in the Northern Territory are privately provided and no subsidies are paid.
	Community service obligations.	<ul style="list-style-type: none"> <li>Government started funding for all community service obligations provided by the Ports Authority.</li> </ul>	
1999	Corporatisation.	<ul style="list-style-type: none"> <li>The Darwin Port Authority was established as the Darwin Port Corporation.</li> </ul>	

Sources: IC (1998), NCC (2001), APEC (2001) and PC (2001b).

