

20 ALLARA ST CANBERRA CIVIC ACT 2600

TELEPHONE: (02) 6213 6000 FACSIMILE: (02) 6213 7000

Submission to the Joint Standing Committee on Foreign Affairs, Defence and Trade

Trade Sub-Committee

Inquiry into 'Enterprising Australia - planning, preparing and profiting from trade and investment'

From
The Department of Industry, Science and Resources

TABLE OF CONTENTS

1.	ROLE OF THE DEPARTMENT OF INDUSTRY, SCIENCE AND RESOURCES	1
2.	OVERVIEW OF INDUSTRY POLICY	1
3.	THE ROLE AND SUCCESS OF DEVELOPMENT AGENCIES IN ECONOMIC EXPANSION	4
	INDUSTRIAL DEVELOPMENT AGENCY OF IRELAND	
4.	INCENTIVES AND IMPEDIMENTS TO FOREIGN INVESTMENT IN AUSTRALIA SUCH AS TRANSPORT SYSTEMS, TAXATION, TELECOMMUNICATIONS INFRASTRUCTURE, PRODUCTION COSTS, INDUSTRIAL RELATIONS STRUCTURES, LEGAL SYSTEMS, FEDERAL SYSTEMS OF GOVERNMENT AND RESEARCH AND DEVELOPMENT INITIATIVES.	10
	Transport systems	
	TAXATION	
	TELECOMMUNICATIONS INFRASTRUCTURE	
	INDUSTRIAL RELATIONS STRUCTURES	
	LEGAL SYSTEMS	
	FEDERAL SYSTEMS OF GOVERNMENT	
	RESEARCH AND DEVELOPMENT SYSTEMS	
5.	THE ADEQUACY OF A SKILLED WORKFORCE IN AUSTRALIA PARTICULARLY IN NEW GROWTH AREAS SUCH AS, THOUGH NOT LIMITED TO, FINANCIAL SERVICES, INFORMATION TECHNOLOGY, E-BUSINESS, EDUCATION, PHARMACEUTICALS AND HEALTH CARE, AND THE COMPETITIVENESS OF THAT WORKFORCE.	
	Financial services	17
	INFORMATION TECHNOLOGY (IT) AND E-BUSINESS	
	Pharmaceuticals	
6.	OPPORTUNITIES FOR ENCOURAGING INWARD INVESTMENT AND PROMOTING EXPO	
	ENCOURAGING INWARD INVESTMENT	
7.	REFERENCES	
8.	APPENDICES	25
	APPENDIX A - COMPARATIVE ROLE OF DEVELOPMENT AGENCIES TO EXISTING AGENCIES IN AUSTRALIA	25

1. Role of the Department of Industry, Science and Resources

The role of the Department of Industry, Science and Resources (the Department) is to improve the well being of Australians through world class business, science and sport. The Department aims to achieve this by pursuing goals of:

- improving the competitiveness of Australian business;
- maximising the national benefits of research and innovation;
- increasing productive investment in Australia;
- expanding market access for Australian business;
- encouraging Australian business to use technology and knowledge;
- fostering the development of an internationally competitive sport and recreation industry;
- achieving ecologically sustainable development and economic growth; and
- providing quality service to our stakeholders.

The Department, therefore, has a strong interest in an inquiry that examines the trade and investment environment in Australia.

2. Overview

Australia's industry policy is founded on the principle of free and efficient markets, which in turn provide the best mechanism for allocating resources and achieving sustainable growth. These avenues offer the best prospects for long term national development and for maximising national welfare.

Australia's industry policy is centred around creating an environment that both enables and encourages its industry to be globally competitive. Industry needs access to competitive inputs and infrastructure, and the flexibility to adapt quickly to changing world markets and environments. Industry needs the confidence to grasp opportunities and to invest for the future.

Australia's industry policy aims to enhance the efficiency and sustainability of Australia's manufacturing, resources and services sectors. It focuses on forward-looking economy wide policies which are designed to strengthen the competitive advantages of industries in all sectors of the economy.

Industry development and economic growth are underpinned by sound macroeconomic conditions and ongoing microeconomic reforms. Ongoing reforms have resulted in relatively low interest and inflation rates, more flexible and efficient product and labour markets, the retirement of Government debt and an internationally competitive tax system.

These initiatives are complemented by a range of business programs framed around the three key drivers of economic growth: innovation; investment; and international competitiveness.

Innovation is a central concern for industry policy. In a rapidly globalising world economy, innovation increasingly determines the attractiveness of a firm's products in the marketplace and underpins the productivity improvement that is crucial to ongoing competitiveness. The Department has a suite of innovation programs aimed at encouraging firms to undertake a higher level of innovation. Building on these initiatives, a significant set of measures to further promote research, development and innovation was launched in the Innovation Statement, *Backing Australia's Ability*, in January 2001. The measures will strengthen Australia's capability to

generate ideas and undertake research, accelerate the commercial application of these ideas and develop and retain Australia's skills.

Investment is essential for strong economic growth in Australia and to achieve continuing improvements in living standards. Investment in technology and enhanced production processes is necessary if businesses are to improve their productivity and output potential, and achieve world competitive practices. Investment in more efficient infrastructure also contributes to improved productivity across the economy.

Invest Australia has been established as Australia's national investment agency and is charged with promoting Australia as an investment location, facilitating major investment projects, and providing a wide range of services to companies seeking to establish or invest in operations here. *Invest Australia* was formed as a means of enhancing Australia's investment attraction efforts against a backdrop of intense investment competition from other nations. The agency's work is complemented by the expanded role of the Prime Minister's Strategic Investment Coordinator, who provides advice to the Government.

A significant aim of investment policy is to ensure that regional Australia has the same access to investment as the rest of Australia and that the facilitation mechanisms apply equally to these investment opportunities.

Australia's future prosperity is dependent upon the ability to compete successfully in international markets. Since the early 1980s and the trend toward more open markets, Australian exports have been growing and now account for almost 20 per cent of the nation's GDP¹.

The reduction of trade barriers presents opportunities and challenges for Australian industries. Australia is actively pushing for increased market access through for a such as the World Trade Organisation (WTO) and Asia Pacific Economic Cooperation (APEC). Bilateral negotiations and mutual recognition agreements between nations are also being pursued in order to remove trade and investment barriers. The Department in conjunction with other agencies also undertakes a range of trade-related promotional initiatives to facilitate wider market access for Australian goods and services.

The Government's Action Agenda strategy continues to be a key mechanism for industry and government to jointly identify opportunities and examine impediments to sustainable industry development and export growth. Action Agendas have been complemented by a range of structural adjustment measures aimed at encouraging industry to increase its international competitiveness.

Australia's existing macroeconomic policies have been particularly successful in setting up a framework for long term, sustainable economic growth. Over the period 1996 to 1999, Australia's economy grew by 4.5 per cent per annum, compared to the OECD average of 2.9 per cent². Investment attraction efforts by *Invest Australia* have also been successful, evidenced by the facilitation of over \$18 billion in investment since its inception in 1997.

A number of other nations employ a more interventionist approach to national development and investment attraction. Both the Industrial Development Agency of Ireland (IDA) and the Singaporean Economic Development Board (EDB) offer a broad range of concessions and incentives to attract investment into particular sectors of the economy.

The IDA's foreign investment attraction efforts have received much publicity, particularly in relation to the perceived impact on Ireland's economic growth. However, much of the growth can be attributed to other 'non-IDA' factors such as an increased labour supply and economic

² ibid.

¹ Department of Industry, Science and Resources (DISR), 2000, *Industry* 2000, DISR: Canberra.

integration with the European Union³. There have also been costs—subsequent closure of previously supported businesses; a skewed industry structure and imbalances in regional outcomes as a result of investment.

Singapore's EDB has been successful to date, but it faces a number of difficulties that are presently affecting investment agencies throughout the world. While EDB continues to target investment in niche areas such as bio-pharmaceuticals, and information and communications technology, rising labour and infrastructure costs and new taxes are reducing the attractiveness of the incentives on offer. Singapore is also having difficulty maintaining its technical edge in the face of rising skill levels and increased competition for investment from Malaysia and China.

The difference in the size, structure, geography and diversification of the economies of Australia, Singapore and Ireland, makes direct comparison of the success of their respective investment attraction strategies difficult. In absolute terms, Australia continues to attract high levels of direct foreign investment, without offering concessions or inducements to potential investors similar to those offered by the IDA or the EDB. An increasing number of regional headquarters for new and emerging economy industries are being established here, particularly in high-tech and services sectors. Australia's political and economic stability; its highly skilled and multicultural work force; and its strong public research infrastructure are significant factors influencing these investment decisions.

It is also recognised that additional reform in areas such as the energy market, taxation and employee share ownership, overcoming the barriers to commercialisation and encouraging philanthropy towards innovation, would further enhance Australia's competitiveness as an investment location.

3

.

³ Organisation for Economic Co-operation and Development, OECD Economic Surveys 1998-99 Ireland.

3. The role and success of development agencies in economic expansion

Various nations have formed economic development agencies as a means of influencing the nature and scale of national economic growth. The broad activities of development agencies encompass the roles of securing and facilitating new investment from overseas, promoting their countries as investment destinations, formulating industry policies, and planning for industrial development.

Invest Australia is Australia's investment attraction agency, responsible for promoting and facilitating direct investment into Australia. Through partnership arrangements between ISR and Austrade, Invest Australia operates offices in Canberra, Sydney, Melbourne and eleven overseas locations. Invest Australia promotes Australia as an investment location, facilitates major projects, and provides a wide range of services to companies seeking to establish or invest in operations here. In addition, the Strategic Investment Coordinator, Mr Fergus Ryan, uses his position to attract to Australia projects with significant net economic and employment benefits that would have otherwise located offshore.

The Department funds the activities of *Invest Australia*. The agency's success is evidenced by the facilitation of investment worth over \$18 billion since its inception in 1997. Some of the investment projects attracted to Australia are:

- National Grid International Ltd's \$500 million for the 400KV Basslink undersea electricity line between Victoria and Tasmania. This international network business located in the UK will build, own and operate the line;
- Tokyo Electric Power Corporation, the biggest Japanese power producer, has a project involving \$120 million in NSW State Forest's program to grow trees to sequester carbon dioxide;
- The \$23 million IBM Asia-Pacific e-Business Innovation Centre has been established in Sydney. This will see Australia become the heart of IBM's Asia-Pacific e-business development and support operations;
- Holden's state-of-the-art manufacturing plant at Fisherman's Bend in Melbourne, which will build new lightweight, fuel efficient V6 aluminium engines. The plant, to be commissioned in 2003, will involve an investment of \$400 million and create up to 550 new jobs; and
- The Syntroleum Sweetwater project, which is a \$890 million gas-to-liquids plant on the Burrup Peninsula WA, will be developed by a consortium led by Syntroleum Corporation, involving the multinational utility company, Enron Corporation. Using leading edge technology, the plant will convert natural gas to specialty liquid hydrocarbon products including synthetic lubricants, drilling fluids; naphtha and liquid normal paraffins.

There are similarities between the activities of *Invest Australia* and some economic development agencies abroad (including the IDA and EDB). Particularly prominent is the 'one-stop shop' function of *Invest Australia*, which assists prospective foreign investors through regulatory and operational processes.

A key difference between the activities of *Invest Australia* and the activities of some other agencies is the quantum of inducements offered to potential investors. *Invest Australia* does not provide across-the-board, open-ended monetary or tax incentives⁴. It is considered that Australia's key advantages as an investment location will continue to be our stable and transparent political and economic

⁴ While this is the case, the Government does recognise that in some limited and special circumstances there may be a need to provide specific incentives to secure strategic investment projects for Australia. In addition, *Invest Australia* is also working to promote Australia as an attractive location for foreign direct investment through techniques such as media campaigns and participation in industry events.

systems; highly skilled and multicultural workforce; the broader business regulatory arrangements; and internationally competitive financial and taxation systems.

The services and programs available through *Invest Australia* to companies seeking to establish or invest in operations in Australia include:

- Regional Headquarters (RHQ) Program: the Regional Headquarters Program facilitates the
 establishment of regional headquarters and regional operations of overseas companies by
 providing tailored immigration agreements for streamlined immigration of expatriate
 employees and tax concessions for establishment costs;
- Major Projects Facilitation (MPF) Program: the MPF service assists companies through government approval processes quickly and efficiently;
- Feasibility Study Fund: the Feasibility Study Fund provides grants to eligible prospective investors to undertake pre-feasibility or feasibility study of a new investment project to assess its commercial viability; and
- Strategic Investment Coordination: the Strategic Investment Coordination process aims to attract projects with significant net economic and employment benefits that would have otherwise located offshore. Requests for investment assistance are considered on a case-by-case basis against specific criteria. The Strategic Investment Coordinator, Mr. Fergus Ryan, provides advice to Government and oversees this process.

The States and Territories have their own investment agencies, all of which are focussed on attracting strategic investments into their respective jurisdictions. Comparable types of assistance are available from all jurisdictions, with the levels of incentives offered differing on an interstate basis. All States and Territories have established overseas offices close to international investment markets in Asia, Europe and the Americas. *Invest Australia* works closely with States and Territories to promote Australia's advantages as an investment location.

Industrial Development Agency of Ireland

The Industrial Development Agency of Ireland (IDA) has responsibility for securing new investment from overseas in manufacturing and international services sectors, and encouraging existing foreign enterprises in Ireland to expand their business. The IDA acts as a 'one-stop shop' for business and investment support.

In working with the IDA, the Irish Government has developed a broad range of grants and incentives to attract foreign investment including:

- taxation incentives: a 10 per cent rate of corporation tax guaranteed until 2010 applying to profits earned on the sale of goods manufactured in Ireland, regardless of whether those products are exported by the company. Computer service firms also qualify for the reduced rate;
- cash grants: the IDA provides discretionary grants that are non-depreciable and non-taxable. Funding is available for site cost and development as well as for new equipment;
- research and development (R&D) grants: investors may obtain a 50 per cent grant for pre-approved expenditures on R&D. Capital grants are also available to establish permanent research facilities or pilot plants;
- training grants: the Government supplies grants to cover as much as 100 per cent of the costs of an accepted training program;
- loan guarantees and interest subsidies: the IDA has developed a system of loan guarantees and subsidies for interest payments;

- physical incentives: the IDA operates a number of fully equipped industrial sites. Firms may lease or buy premises and obtain cash subsidies for rentals. Arrangements can also be made for the construction of custom-built facilities for individual companies; and
- incentives for service industries: incentives in the form of employment grants for service sectors including engineering, computer software, data processing, commercial testing and media production. Qualifying companies must either operate internationally or bring in experience not generally available in Ireland⁵.

Specific sectors targeted by the IDA include: electronics; engineering; pharmaceuticals; medical device manufacturers; software development; teleservices (call centres); financial services; other services and branch offices.

The IDA has assisted around 1,200 companies employing approximately 131,000 people. These companies also contribute around 50 per cent of total Ireland manufactured output, 80 per cent of manufactured exports and 35 per cent of Ireland's GDP⁶. The activities undertaken by IDA have assisted companies to generate around IR£10 billion (A\$15.08 billion) in expenditure in the Irish economy and to contribute IR£900 million (A\$1.36 billion) in corporate tax revenue per annum⁷..

While the IDA's investment strategies have received much favourable publicity, a closer examination of the success of the Irish economy during the 1990s reveals that a number of 'convergence' factors played a more significant role than the IDA. These factors include:

- increased labour supply via a late 'baby boom';
- modest immigration into Ireland during the 1990s replaced historical emigration trends;
- rising labour force participation rates, particularly for women;
- improved human capital formation through education and skill investment, funded by EU Structural Funds; and
- trade liberalisation, fiscal consolidation and other fundamental economic reforms⁸.

In addition, Ireland has benefited from 'catching up' to more developed European economies, using the large European Common Market as the basis for market access-driven growth. In particular, integration with the European Union has facilitated the transfer of EU Structural Funds from Brussels to Ireland. These funds have been used to build public and human capital infrastructure.⁹.

Against the publicised successes of the IDA in attracting foreign investment, a number of concerns have been raised about the effects of the IDA's investment attraction strategy. These are discussed below.

Employment effects

While IDA-sponsored foreign investment has led to employment increases in a range of strategic industries, the average annual number of jobs lost in companies supported by the IDA averaged 5,881 persons during the 1990s¹⁰. This represented approximately 51.9 per cent of new jobs

⁷ ibid.

⁵ Dorgan, Sean, Chief Executive, IDA Ireland, 2000, 'Globalisation and the Benefits of Investment - The Irish Experience', unpublished speech.

⁶ ibid.

⁸ International Monetary Fund (IMF), 1997, World Economic Outlook, May, IMF: Washington DC.

⁹ According to the IMF, the EU Structural Funds peaked at 3.4 per cent of Irish GNP in 1991 and 1993, and averaged around 2.4 per cent in 1994-96.

¹⁰ The number of jobs lost in IDA-supported firms in recent years are as follows: 1999 (9,392); 1998 (7,193); 1997 (4,890); 1996 (5,979); 1995 (5,118); 1994 (4,907); 1993 (5,512); 1992 (5,816); 1991 (5,621); 1990 (4,384).

created over the period 1990-1999¹¹. The closure and reduction of some economic activities supported by the IDA has led to a number of high-profile foreign investors, such as Motorola and Corel Corporation, required to repay grants received from the IDA¹².

In addition, the average cost per job sustained by IDA assistance over the period 1992 to 1999 was IR£10,260 (A\$15,470). Given that less than 9 per cent of the total Irish workforce work in IDA-supported companies, concerns have been raised about the cost effectiveness of the IDA's foreign investment attraction strategies.

Effects on industry structure

Ireland's foreign investment strategy, with its emphasis on attracting manufacturing investment, has contributed to the development of an atypical industrial structure. In particular, Ireland has a relatively low share of non-government services in national output (27 per cent in the mid 1990s) compared to other OECD economies (48 per cent)¹³. In 1996, Ireland had the smallest output shares in the OECD for both wholesale and retail trade, restaurants and hotels, and transport, storage and communication¹⁴. It also had the third lowest share in finance, insurance, real estate and business services¹⁵.

Effects on economic efficiency

Ireland's investment attraction policy has resulted in structural distortions to the economy¹⁶. In addition, the IDA's activities subsidise selected foreign investors at the cost of the rest of Ireland's economy.

Effects on innovation

A number of commentators have stated that Ireland's investment attraction strategy has failed to sufficiently encourage innovation and R&D. According to the OECD, research and development expenditure was around 1.41 per cent of GDP in 1999, which is below the OECD average of 2.23 per cent¹⁷. In addition, the OECD has observed that technology and expertise has failed to spread sufficiently from the 'foreign' sector to the domestic sector, consolidating the dualistic nature of Ireland's economy¹⁸.

The apparent oversight of R&D and innovation priorities in Ireland's investment attraction policies has led to an emphasis towards attracting 'quality' foreign investment which can deliver knowledge-based activities to Ireland, as opposed to solely attracting a critical mass of investors in strategic industries.

Regional effects

Concerns about the geographic unevenness of IDA assistance has been raised as an issue. The Kilderry, Border, Midlands and West regions have been critical of the concentration of IDA activities and assistance in south-eastern counties (particularly in or around Dublin) at the

¹³ Organisation for Economic Co-operation and Development, OECD Economic Surveys 1998-99 Ireland.

¹¹ Forfas Ireland, 2000, *Annual Competitiveness Report 2000*, http://www.forfas.ie/ncc/reports/ncc-2000/progress.htm.

¹² ibid

¹⁵ In addition to these concerns, an Irish academic, Dr Sara Dillon, has remarked that the IDA, with its focus on attracting foreign investors, has promoted the development of the Irish economy as merely a branch of the US economy (Ingle, 1999).

¹⁶ ibid.

¹⁷ Roddam, Tony, 1999, 'Happy Irish economy not all smiles - experts', Reuters News Service, 25 March.

¹⁸ *ibid*.

expense of their areas. In response to these concerns, the IDA has started to encourage the location of foreign investment in regional areas.

Recent foreign investment attraction performance

According to the 1999 Ireland National Competitiveness Report, Ireland's ranking as a location attractive to foreign investment has fallen from the best performer to third, behind Finland and Sweden. This implies that, despite its best efforts to attract foreign investment via subsidies and other inducements, the total packages of investment opportunities available in Finland and Sweden were more attractive.

Singapore Economic Development Board

The Economic Development Board (EDB) is Singapore's chief investment attraction and promotion agency. It employs 600 people and has an operating budget of A\$150 million per annum¹⁹. In addition to promoting Singapore to potential investors, the EDB assists Singaporean companies to expand overseas.

The EDB was created as a 'statutory board' in 1961. An International Advisory Council, comprising Singapore's Deputy Prime Minister and senior management from leading multinational corporations, was established in 1995 to provide advice to the EDB on investment attraction strategies and operations.

Singapore's approach to investment attraction is threefold:

- research: the EDB analyses global business trends and the performance of the world's multinational companies (MNCs) and provides intelligence on both business trends and specific comments on MNCs of interest to Singapore;
- *co-investment*: for major strategic projects, the EDB will consider investing alongside multinational companies. This serves to reduce the capital outlay and risk of the MNC. The EDB acts as a passive equity investor, allowing the MNC full management control of the project. The private arm of the EDB is known as EDB Investments, a wholly owned corporate entity which has invested over US\$2 billion (A\$3.61 billion) in major projects; and
- *investment incentives*: Singapore has an expansive range of financial investment incentives. These include concessionary rates of corporate tax, cash grants and provision of infrastructure²⁰.

As part of its *Industry 21* strategy, the EDB seeking to attract investment and develop industry clusters in electronics; chemicals; life (biological) sciences; engineering; education and health care; logistics; and communications and media²¹. Attraction of business headquarters, and the development of domestic industries is also an objective²².

In 1999, EDB activities attracted S\$8 billion (A\$8.21 billion) in total fixed asset investment commitments in manufacturing and S\$1.6 billion (A\$1.64 billion) of total business spending in services²³. These investments generated value-added of S\$7.7 billion (A\$7.90 billion) and

8

¹⁹ Invest Australia, 2000, 'The Economic Development Board (EDB) of Singapore', unpublished paper.

²⁰ ibid.

²¹ Singapore Economic Development Board (EDB), *Annual Report*, various years.

 $^{^{22}}$ ibid.

²³ ibid.

21,000 jobs²⁴. In the manufacturing sector, around half of the 13,500 new jobs were for knowledge and skilled workers, and in services the proportion was at 84 per cent²⁵.

Singapore is currently experiencing rising labour costs and is having difficulty in maintaining its technical edge in the face of the changing influence of its neighbours such as Malaysia and China. These problems combined with the introduction of new taxes are also detracting from Singapore's attractiveness as an investment location.

Appendix A outlines the roles of ten international investment promotion agencies and compares their activities with agencies in Australia.

 $^{^{24}}$ ibid.

²⁵ *ibid*.

4. Incentives and impediments to foreign investment in Australia such as transport systems, taxation, telecommunications infrastructure, production costs, industrial relations structures, legal systems, federal systems of government and research and development initiatives.

Foreign investment provides scope for higher rates of economic activity and employment than could be achieved from domestic levels of savings alone. It also provides access to new technology, management skills and overseas markets.

Substantial changes have been introduced to many areas of the Australian economy to create an internationally competitive business environment that is conducive to foreign investment. These include macroeconomic policies which have led to a low inflation and interest rate environment. They also include microeconomic reforms to help ensure the economic environment is unimpeded by Government regulation, restrictive work practices and uncompetitive inputs to production. These reforms have also raised Australia's long term productivity growth rate to levels well above the OECD average and enhanced the growth potential of the economy.

It is recognised that further reforms to the Australian economy are needed to address the impediments to foreign investment in Australia. Reforms to the energy market, taxation and employee share ownership, overcoming the barriers to commercialisation and encouraging philanthropy towards innovation are some of the areas that have been identified as future opportunities for Government review.

Transport systems

Safe, reliable and efficient modes of transportation are vital to the functioning of a modern economy. The Department of Transport and Regional Services states that Australia possesses a competitive transport infrastructure system (including road, rail, sea and air transport) which supports economic activity. The following indicators highlight the economic significance of Australia's transport infrastructure:

- the value of Australia's 800,000 kms of paved and unpaved roads is approximately \$50 billion (excluding the value of land under roads);
- in terms of value, 70 per cent of imports and 78 per cent of exports were transported by sea in 1995-96, with a total value of around \$60 billion;
- the total number of passengers carried to and from Australia on both scheduled and non-scheduled flights increased from approximately 6.1 million in 1986 to 14.8 million in 1997; and
- in 1998, rail transport represented around 0.5 per cent of GDP and 8 per cent of total transport value added, and employed approximately 36,500 full-time workers²⁶.

According to IBIS data, the transportation sector²⁷ directly contributes around 5.3 per cent of GDP, employs 408,700 people, and had exports valued at \$9.672 billion in 1998-99.

A key objective of the microeconomic reform agenda has been to increase competition in the transportation sector in order to improve the cost competitiveness of Australian industries. Major transport reforms include:

-

²⁶ Department of Transport and Regional Services, http://www/dotrs.gov.au.

²⁷ Including storage sector.

- privatisation of Federal airports, the Australian National Line, Australian National Railways and the Commonwealth Government's share in National Rail;
- structural reform of interstate rail services:
- the liberalisation of the domestic aviation market which has seen the introduction of new entrants such as Impulse and Virgin Blue airlines, the establishment of a Single Aviation Market with New Zealand and the proposed review of international air service agreements;
- reform of the road transport sector; and
- reforms in the maritime sector that has led to improvements in national average crane and net ship rates²⁸.

A continuing issue is to ensure that economically viable, private sector-led infrastructure projects are established in rural and regional areas of Australia in order to enhance national productivity and economic growth. In the 2000-01 Budget, the Government announced around \$858.9 million in direct expenditure on roads (of which 90 per cent will be allocated to non-urban roads), funding to facilitate the development of the Alice Springs-Darwin railway as well as other rail infrastructure initiatives, and funding to upgrade airports across Australia. An additional \$1.6 billion was announced in November 2000 for the repair and maintenance of Australia's road systems.

Taxation

Australia has a modern taxation system that is designed to sustain the economy's longer-run growth potential.

Indirect taxation reform

The indirect tax reform package, introduced on 1 July 2000, includes changes to personal income tax rates and family and social security payments that improved incentives to work and save. Around 80 per cent of all Australian's now only pay a top marginal rate of 30 per cent or less.

The introduction of a broad-based goods and services tax (GST), which replaced the wholesale sales tax (WST) and some State taxes, has resulted in a more efficient indirect tax system less distorting to production and consumption decisions. *The New Tax System* has also removed the tax burden imposed by the former WST on exports and provided the States and Territories with the revenue from the GST.

Business taxation reform

A comprehensive reform of Australia's business taxation arrangements has also occurred. Key measures under the business tax reforms included:

- lowering the company tax rate from 36 per cent to 34 per cent for the 2000-01 income tax year and to 30 per cent thereafter;
- reforms to the capital gains tax regime, including taxing only 50 per cent of total capital gains for individuals, with the result that the highest tax rate for individuals will effectively be 24.25 per cent;
- the introduction of a *Simplified Tax System*, involving a cash accounting regime, simplified depreciation rules and a simplified treatment of trading stock, which effectively reduces the compliance burden for potentially 95 per cent of businesses;

²⁸ The ACCC has found significant cost reductions for container stevedoring activity in Australia in 1999-2000. The average industry-wide cost per TEU (20-foot equivalent unit containers) for six months to July 2000 was \$148, compared to \$161 for the five months to July 1999.

• reducing tax avoidance through the removal of anomalies and improved anti-avoidance measures.

These changes have helped achieve a business tax system that minimises distortions to business decisions, reduces compliance costs, and provides a competitive regime for attracting international capital.

Telecommunications Infrastructure

Australia's telecommunications sector has moved progressively from a largely centralised publicly controlled monopoly structure, through a managed competitive model, to an open and competitive market regime with an emphasis on industry self-regulation. Over 50 licensed telecommunications carriers operate in the Australian market, and thousands of service providers specialise in particular market segments or geographical locations. Telecommunications sector liberalisation has delivered significant benefits to Australian businesses, consumers and to the wider economy through greater choice, improved quality of services and lower prices²⁹.

The National University of Singapore Centre cites these improvements in the telecommunications system for Tele-Media Strategy *Asia-Pacific Telecommunications Index* 2000³⁰. This indicates that Australia has the most competitive telecommunications system in the region on the basis of service, choice, regulation and pricing.

In addition to a competitive telecommunications infrastructure, Australians have been quick to embrace 'new economy' technologies. For example:

- Australia is one of 6 countries ahead of the OECD average penetration rates for Internet hosts and secure servers, and 3rd in OECD member countries for the use of secure servers for electronic commerce, on a per capita basis;
- Australia has been ranked 5th in the world for Internet access, and has the cheapest access prices in the Asia-Pacific region;
- Australia is 6th in the world (and 1st in the Asia-Pacific region) in per capita ownership of personal computers; and
- in June 2000, 45 per cent of the Australian population were users of mobile phones³¹.

Production Costs

Australia enjoys relatively low production costs on an internationally comparative basis, making

it an attractive location for business investment. The spectrum of Australia's cost advantages range from prime CBD office space, metropolitan factory space and industrial land, to transport infrastructure and low-cost utility charges.

Unit labour costs

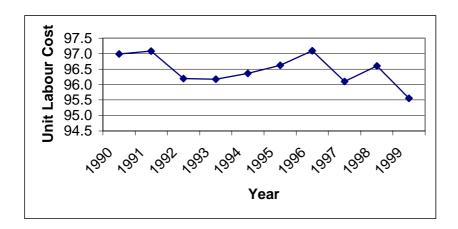
As shown in Table 1, Australia's unit labour costs, in real terms, have in fact fallen over the past decade.

²⁹ According to the IMD *World Competitiveness Yearbook* 2000, Australia has the tenth lowest international telephone call charge of the 47 countries surveyed (in terms of \$US per three minutes in peak hours to US), and has the second lowest international call charge in the Asia-Pacific region.

³⁰ The 2000 Index examines 13 regional economies (Australia, Japan, Hong Kong, Singapore, New Zealand, Korea, Taiwan, Malaysia, Thailand, Philippines, Indonesia, India, and China), and ranks each of these on four dimensions of telecommunications competitiveness - service, choice, regulation and pricing.

³¹ Department of Industry, Science and Resources, 2000, *Knowledge-Based Activities: Selected Indicators*, DISR: Canberra.

Table 1: Australia's unit labour costs, 1990-9932



Property and construction costs

Australia offers fully serviced capital city, metropolitan and regional locations with real cost advantages over other Asia-Pacific locations. For example, Australian prime CBD office space costs in capital cities range in annual price from an average of US\$92 to US\$244 per square metre, compared to from US\$332 to US\$839 in Hong Kong and from US\$690 to US\$692 in Tokyo³³.

Research and development costs

International comparisons reveal that it costs less to maintain an R&D facility in Australia than in most countries in Asia, Europe or North America. For example, a medium-sized facility in Australia employing 30 persons will cost, on average, \$2.5 million annually in staff, industrial rent/lease, capital and administration³⁴. The same facility would cost more than twice as much in Japan (\$5.8 million), and almost as twice as much in Hong Kong (\$4.9 million) or Germany (\$4.8 million)³⁵. In Singapore, the same R&D facility would cost \$3.6 million per annum³⁶.

Utility costs

Deregulation of the electricity industry in the 1990's has resulted in substantial price reductions for industrial users. Over the four years to 1996-97, electricity prices for industrial users fell by 19 per cent in real terms. According to the World Competitiveness Yearbook 2000, Australian electricity prices were amongst the lowest in Asia³⁷.

Australia has an abundance of natural gas, ensuring a ready and cost competitive supply of gas for industrial use and has witnessed real prices fall over recent years. In 1998, Australian gas prices (expressed in terms of \$US per kilowatt-hour) were \$1.29, compared to \$1.38 in the US, \$1.98 in South Africa and Germany, and \$2 in France³⁸.

³² Department of Treasury, http://www.treasury.gov.au.

³³ International Institute for Management Development (IMD), 2000, *The World Competitiveness Yearbook* 2000, IMD: Lausanne.

 $^{^{34}}$ ibid.

³⁵ ibid.

³⁶ ibid.

³⁷ According to the Yearbook, Australian electricity costs are 5.6 cents (\$US) per kilowatt-hour (kWh), and are lower that that in Malaysia, Taiwan, Thailand, Singapore, Philippines, Hong Kong and Japan.

³⁸ *ibid*. International Institute for Management Development (IMD),

Australia's international telephone costs also compare favourably in an international context. The World Competitiveness Yearbook 2000 indicates that Australia's costs (\$US per 3 minutes in peak hours to USA) were 60 cents, in comparison with New Zealand (74.1 cents), Singapore (\$1.66), Japan (\$1.69), Malaysia (\$2.36) and China (\$6.66).

Regulatory costs

Australia has engaged in a comprehensive and aggressive campaign of reform of its regulatory environment, reducing the cost of compliance to business while retaining important investor and consumer protections. As a consequence of these reforms, Australian corporate governance is recognised amongst the world's best. US and European corporations describe these costs as a hidden inflationary factor, rising 2 to 3 times the rate of the local consumer price index.

Australia is moving to establish an electronic one-stop shop for all business regulatory needs so that all appropriate services are deliverable over the Internet.

Industrial relations structures

The *Workplace Relations Act 1996* heralded a significant landmark in Australia's industrial relations landscape. It encouraged labour market flexibility by promoting enterprise-level wage bargaining, providing greater choice in the way enterprise bargaining agreements are negotiated, and limiting the award system to a safety net of fair minimum wages and working conditions. The success and effectiveness of this arrangement is shown in recent statistics - the equal average labour productivity growth rate in Australia has accelerated over the last five years, achieving an average annual increase of 3.7 per cent a year in that period³⁹. In addition, last year Australia recorded the lowest number of working days lost per 1,000 employees due to industrial action since 1913, for the 2nd successive calendar year⁴⁰.

Further reforms to the industrial relations system are being pursued to build upon those already implemented. Amendments to the current unfair dismissal laws and the preservation and extension of age-based junior wage rates are policies designed to overcome restrictions on employment growth. Other policies being pursued to enhance productivity and streamline enterprise bargaining include further award simplification, reducing the role of third parties in the agreement-making process, and ensuring that union membership is voluntary.

Legal systems

Australia's legal system is a mixture of common law and statute similar to the legal systems in the United Kingdom, other Commonwealth countries and some European countries. This mix has made possible a transparent and accountable legal system that balances a fair and reasonable access to justice without discrimination or favour with a strong concept of sanctity of contract and the underlying rule of law. Both domestic and foreign companies and individuals have equal standing before Australian law. Businesses operating in Australia are assured of a legal system that is sensitive to their needs, in keeping with agreed international standards and conventions and supported by a fair and impartial judiciary. The *Global Competitiveness Report 1999* rates Australia's judiciary impartiality, including independence from government, at number 2 in the world, far exceeding Australia's nearest Asian-Pacific competitor at 13. The report also confirms that Australia has the lowest incidence of legal system corruption in Asia.

There are no foreign exchange controls in Australia. The Australian currency is fully internationalised. The standing of the Australian dollar as a global currency is recognised by its

_

³⁹ Department of Industry, Science and Resources (DISR), 2000, *Structural Change in Australian Industry*, DISR: Canberra.

⁴⁰ ibid.

inclusion in the first wave of 7 currencies in the Continuous Linked Settlement (CLS) System. Other currencies included were the US dollar, the Euro, the Japanese Yen, the Swiss franc, the pound sterling and the Canadian dollar). In addition, Australia places no restrictions on foreign firms seeking credit or loan facilities and there are no restrictions on capital flows, profit remittances, capital repatriation, transfer of royalties, or trade-related payments.

In addition, Australia is recognised as having one of the most effective and modern intellectual property (IP) rights regimes in the world⁴¹. Domestic IP legislation reflects international best practice, ensuring Australian-based firms benefit from comprehensive protection and can invest in R&D, transfer technology and develop new products with confidence. Australia's IP legislation is strongly influenced by commitments to World Intellectual Property Organisation (WIPO) conventions and the requirements of Trade-Related Aspects of Intellectual Property Rights (TRIPs) Agreement under the World Trade Organisation. Further measures to improve the strength and accessibility of the IP system were included in the Innovation Statement, *Backing Australia's Ability*.

The Commonwealth Government has introduced a range of reforms to simplify Australia's legal and regulatory regime. For example, the Government is completing a major program of reform of Australia's corporate law, aimed at streamlining regulation whilst maintaining market integrity and investor protection. Under the CLERP program, accounting standards are being given a more commercial focus, fundraising regulation is being streamlined, and a more competitive takeover market facilitated.

Federal systems of government

Australia has a system of investor-friendly State, Territory and Federal Governments, each with its own investment attraction agency. To minimise the economic distortions which may arise from multi-level government involvement in attracting global investment, the Commonwealth, State and Territory Industry Ministers agreed on 2 February 2000 to work more cooperatively to promote Australia's advantages as an investment location.

Research and Development Systems

In view of the well recognised linkages between a strong economy and its capacity to innovate, Australia has a range of policies designed to stimulate and nurture creativity in Australian business and build linkages between public sector research institutions and the business community. These initiatives include both direct funding of research institutions, and programs designed to encourage further business investment in research and development (R&D).

Public funding for direct R&D in Australia continues to be relatively strong in international terms. In 1998-99, for example, R&D expenditure in the public sectors (government agencies and universities) represented some 0.80 per cent of GDP, making Australia one of the highest public research spenders on R&D in the OECD and well ahead of countries such as the United Kingdom, the United States and Japan. Australia's high level of public funding is supported by a range of business incentives for R&D.

The newly released Innovation Statement, *Backing Australia's Ability*, provides a comprehensive and integrated package representing an additional Government investment of \$2.9 billion over five years on top of current public investment of \$4.5 billion in 2000-01. This five year strategy, developed with assistance from the business, education and scientific communities, builds on earlier initiatives - including the *Investing for Growth* statement of December 1997, the higher

_

⁴¹ According to the *World Competitiveness Yearbook Survey 1999*, Australia scored8.59 out of 10 in terms of protection of intellectual property, exceeding countries such as the US, Singapore, UK, Japan, Ireland, Hong Kong and Malaysia.

education White Paper, *Knowledge and Innovation*, and the doubling of funding for health and medical research as a response to *The Virtuous Cycle*, the report of the Health and Medical Research Strategic Review.

Backing Australia's Ability will fund major initiatives to stimulate innovation, including:

- providing an additional \$736 million for Australian Research Council competitive grants, doubling funding by 2005-06;
- boosting research infrastructure funding by \$583 million;
- committing an additional \$176 million for world class centres of excellence in the key enabling technologies of Information and Communications Technologies (ICT) and biotechnology;
- providing \$155 million to support investments in major national research facilities;
- continuing the R&D Start Program with funding of \$535 million over five years, offering further grants and loans to assist industry with R&D and commercialisation;
- reforming the R&D tax concession including the provision of a premium rate of 175 per cent for additional R&D activity, and a tax rebate for small companies;
- expanding the Cooperative Research Centres Program, designed to bring together researchers from public and private organisations, with an additional \$227 million and encouraging greater access by small and medium enterprises;
- increasing funding to universities by \$151 million to create 2000 additional university places each year, with priority given to ICT, mathematics and science to be backed by adjustments to existing immigration arrangements to attract more migrants with ICT skills; and
- delivering \$130 million to foster scientific, mathematical and technological skills and innovation in government schools in those States where the Enrolment Benchmark Adjustment (EBA) is triggered.

It is estimated that the Government's investment of \$2.9 billion will underpin business and research organisation expenditure of approximately \$6 billion per annum.

5. The adequacy of a skilled workforce in Australia particularly in new growth areas such as, though not limited to, financial services, information technology, e-business, education, pharmaceuticals and health care, and the competitiveness of that workforce.

As the structure of the economy is rapidly changing towards a more skills-intensive and knowledge-based economy, a highly skilled workforce becomes a critical means by which Australian business can increase productivity and competitiveness. The quality of the workforce is also a key factor influencing the location of international investment.

Australia has a highly skilled, multi-lingual and cost-competitive workforce, attractive to potential investors. For example:

- 45 per cent of Australia's workforce has post-school qualifications such as university, trade, diploma or skilled vocational qualifications;
- 31 per cent of Australians with degrees from tertiary institutions have post-graduate qualifications;
- approximately 90 per cent of workers in highly skilled occupation classifications receive ongoing training each year;
- Australia's management pool is 8 times larger than that of Singapore and 4 times larger than that of Hong Kong. Many Australian senior managers and technical staff have substantial international and Asian experience; and
- the World Matriculation Index ranks Australia 5th in the world in preparing citizens for information age literacy⁴².

In addition, a 1998 Political and Economic Risk Consultancy (EPRC)⁴³ publication ranked Australia as highest in the Asia-Pacific region and 2nd in the world for availability of skilled labour.

Financial services

According to IBIS World data, the Australian financial services sector employed 167,334 persons in 1998-99. More broadly, Australian Bureau of Statistics data shows that employment in the finance and insurance industry has grown by 8.9 per cent in total from 1993 to 2000⁴⁴.

The availability of experienced managers has been identified as a constraining factor for the expansion of the Australian venture capital industry. The reputation and experience of fund managers is critical to attracting funds for investment and to retain those funds. While new participants have entered the industry, investments take time to deliver returns and for the new participants to be recognised as venture capitalists.

The need to foster the development of venture capital managers is being addressed through the objectives and operation of the Innovation Investment Fund. The Pooled Development Fund Program (PDF) also provides opportunities for the development of fund manager skills.

⁴² Invest Australia, http://www.isr.gov.au/invest/index.html.

⁴³ The EPRC is a Hong Kong-based consulting firm specialising in strategic business information and analysis for companies undertaking business operations in East and South-East Asia. ⁴⁴ Australian Bureau of Statistics, http://www.abs.gov.au

Information Technology (IT) and e-Business

According to the World Competitiveness Yearbook 2000 survey, Australia has the 3rd highest availability of information technology skills in the Asia-Pacific region, making Australia an attractive location for strategic IT investments.

The demand for information and communication technology (ICT) skills in Australia has risen strongly over the past decade. In August 1999, total employment in ICT related occupations was estimated to be 302,200⁴⁵. The largest occupation was computing professionals with employment of 134,700, or approximately 45 per cent of total ICT employment.

Australia's ICT workforce will continue to expand due to strong growth in the number of students undertaking ICT training and education. The growth of ICT training in Australia is illustrated by the number of commencements in Computing Science and Information Systems Degrees, which grew by 112 per cent between 1989 and 1998, while commencements in Electronic Engineering and Computer Engineering Degrees grew by 98 per cent in the same period⁴⁶. Completion rates also increased markedly for Computing Science and Information Systems Degrees growing by 139 per cent between 1989 and 1996⁴⁷. Completions for Electronic Engineering and Computing Engineering Degrees grew by 112 per cent in the same period⁴⁸.

Australia's professional migration program is widely used by ICT professionals. Australian-based firms are able to access the best skills from overseas if they are not immediately available in the domestic market. Australia's ability to retain and attract top quality ICT professionals reflects both the quality of the IT sector here as well as first rate quality of life attributes.

Australia, like other countries worldwide, is faced with a shortage of skilled information technology workers. Evidence suggests that skill shortages currently exist for ICT professionals with experience in certain specialisations. However, Australia is performing better in this area than many other countries, evidenced also by our extremely competitive technical and management salary costs. Government and ICT industry representatives have identified Australia's shortage to be more than 30,000. This figure is considered to be low relative to the number identified for other countries.

While direct employment data for the e-commerce sector is unavailable, a recent National Office for the Information Economy (NOIE) study has estimated that increased usage of e-commerce by businesses over the next decade would raise aggregate employment by 0.5 per cent⁴⁹.

Pharmaceuticals

According to the Australian Pharmaceutical Manufacturers Association, the pharmaceuticals industry in Australia directly employed over 14,000 persons in 1998-99. Employment in the industry has grown, on average, more than 8 per cent per annum between 1996-97 and 1998-99.

⁴⁵ Australian Bureau of Statistics, http://www.abs.gov.au

⁴⁶ Allen Consulting, 1997, *Spectator or serious player? Competitiveness of Australia's information industries*, Report to the Information Industries Taskforce, Allen Consulting Group: Canberra.

⁴⁷ *ibid*.

⁴⁸ ihia

⁴⁹ The study also estimates that the macroeconomic impacts of greater usage of e-commerce over the next decade include: an increase in national output by 2.7 per cent; an increase in real investment by four per cent; an increase in consumption by three per cent; an increase in real wages by 3.5 per cent; and an increase in the real exchange rate of two per cent.

In addition, a recent study by Goldman-Sachs estimated that the combined effect of B2C and B2B e-commerce is expected to contribute an average of 0.32 per cent annually to Australia's growth over the next ten years.

Wages, per employee are 21 per cent higher than for general manufacturing and productivity has grown at a rate of over 7.5% since 1987^{50} .

The expected growth in the pharmaceuticals sector due to the aging of the world population and the adoption of new technologies equate to continued demand for skilled workers.

⁵⁰ Australian Economic Analysis Pty Ltd, Pharmaceuticals and Australia's Knowledge Economy: A Report on Australia's Pharmaceutical Industry, 1998.

6. Opportunities for encouraging inward investment and promoting export sales

Encouraging inward investment

Australia's attractiveness as a location for investment will continue to rest on the strength of the country's economic foundations. To date, this approach has proved to be successful in attracting substantial investment to Australia. In March 2000, the stock of foreign direct investment in Australia reached \$188.9 billion, increasing at a rate of 8.3 per cent per annum since March 1996⁵¹.

This investment has helped with the establishment and growth of many industries. It has also brought with it knowledge, expertise and technology, which has helped strengthen the performance of a wide range of companies. It has also provided further secure, well-paid jobs for Australians and enhanced opportunities for developing skills.

In addition to the broad economic factors that have attracted investment to Australia, investment has been encouraged through a range of specific initiatives such as:

- The establishment of *Invest Australia*, including:
 - Major Project Facilitation;
 - Regional Headquarters program;
 - Feasibility Study Fund;
- Strategic Investment Coordinator;
- Pharmaceutical Industry Investment Program;
- Automotive Competitiveness and Investment Scheme;
- Textiles, Clothing and Footwear Strategic Investment Program;
- Printing Industry Competitiveness Scheme;
- Axiss Australia (formerly the Australian Centre for Global Financial Services);
- Project By-Laws Scheme; and
- Pooled Development Funds Program.

As well, and in response to the need to attract increased investment in "new economy" sectors, *Invest Australia* is developing investment attraction strategies for ICT; Biotechnology; and R&D. *Invest Australia* is also considering potential opportunities for investment promotion activities in the area of renewable energy.

The ICT Investment Attraction Strategy has been developed and implemented in close cooperation with the Office of the Information Economy (NOIE). The Strategy's main objectives are to:

- develop and maintain relevant information and policy frameworks;
- increase awareness of Australia as a potential investment location;
- create and enhance links between Australian business and investors:
- attract investors to Australia's IT&T sector:

_

⁵¹ Department of Industry, Science and Resources (DISR), 2000, *Industry 2000*, DISR: Canberra.

- seek joint venture partners for Australian companies to facilitate investment in Australia and access to foreign markets;
- assist, where necessary, the development and implementation of particular projects and the location of overseas IT&T companies; and
- provide effective aftercare service and increased investment by established firms.

To help improve investment into Australian R&D, the R&D Investment Attraction Strategy aims to:

- increase Australia's overall financial resources for R&D;
- increase business engagement in R&D;
- strengthen Australia's international linkages in science and R&D;
- improve Australia's access to the international knowledge base; and
- extend and expand the research infrastructure needed for future economic growth and development.

A draft Biotechnology Investment Attraction Strategy has been developed in close cooperation with Biotechnology Australia and other stakeholders. Its principal objectives are to:

- enhance the economic and community benefits of biotechnology through:
 - an internationally competitive environment for investment and enterprise development;
 - stronger links between the biotechnology research sector and industries that apply biotechnology; and
 - better management of intellectual property.
- maintain and develop the infrastructure for generating biotechnology applications through:
 - productive investment in biotechnology research and development;
 - world class education in biotechnology;
 - secure access to genetic and biological resources; and
 - conserve genetic and biological resources.

Promoting export sales

Australia has a small domestic economy in world terms and its industries need to compete in overseas markets to grow. Accordingly, trade policy has, and will continue to push for fair and open market access for Australian products. The World Trade Organization and the Asia-Pacific Economic Cooperation (APEC) forum offer key opportunities to progress this aim. For example, Australia has played an important part in the achievements of the APEC Sub-Committee on Standards and Conformance (SCSC) in addressing and reducing technical barriers to trade.

Australia has also been active in pursuing the removal on non-tariff trade and investment barriers through bilateral negotiations. These include the development of mutual recognition agreements, which provide an alternative mechanism for Australian manufacturers to have their products assessed for compliance with other countries' regulatory requirements prior to export. These agreements reduce business export costs and the time involved in entering export markets.

A number of trade-related initiatives have been implemented to facilitate greater trade in Australian goods and services. For example, TRADEX promotes the development of export manufacturing businesses in Australia. The scheme allows an exemption from liability to duty and other taxes on goods imported into Australia and subsequently exported either in their original form or as components of an Australian manufactured good.

Others assistance to facilitate market access of Australian goods and services include:

- market access programs such as Export Access, TRADEX and the APEC Market Integration/Industrial Collaboration Program;
- automotive industry promotion through the aXcess Australia low emission vehicle.

7. References

Allen Consulting, 1997, Spectator or serious player? Competitiveness of Australia's information industries, Report to the Information Industries Taskforce, Allen Consulting Group: Canberra.

Australian Bureau of Statistics, http://www.abs.gov.au

Australian Economic Analysis Pty Ltd, *Pharmaceuticals and Australia's Knowledge Economy:* A Report on Australia's Pharmaceutical Industry, 1998.

Commonwealth Government of Australia, http://www.innovation.gov.au/iap/index.html

Department of Industry, Science and Resources (DISR), 2000, Industry 2000, DISR: Canberra.

Department of Industry, Science and Resources 2000, *Knowledge-Based Activities: Selected Indicators*, DISR: Canberra.

Department of Industry, Science and Resources (DISR), 2000, Structural Change in Australian Industry, DISR: Canberra.

Department of Industry, Science and Tourism (DIST), 1997, *Investing for Growth: The Howard Government's Plan for Australian Industry*, DIST: Canberra.

Department of Transport and Regional Services, http://www.dotrs.gov.au.

Department of Treasury, http://www.treasury.gov.au

Dorgan, Sean, Chief Executive, IDA Ireland, 2000, 'Globalisation and the Benefits of Investment - The Irish Experience', unpublished speech.

Forfas Ireland, 2000, *Annual Competitiveness Report 2000*, http://www.forfas.ie/ncc/reports/ncc-2000/progress.htm.

International Institute for Management Development (IMD), 2000, *The World Competitiveness Yearbook 2000*, IMD: Lausanne.

International Monetary Fund (IMF), 1997, World Economic Outlook, May, IMF: Washington DC

Invest Australia, 2000, 'The Economic Development Board (EDB) of Singapore', unpublished paper.

Invest Australia, 2000, Your Guide to Investment, http://www.isr.gov.au/invest/Flagship.pdf.

Ireland Industrial Development Authority (IDA), Annual Report, various years.

Organisation for Economic Co-operation and Development, OECD Economic Surveys 1998-99 Ireland.

Roddam, Tony, 1999, 'Happy Irish economy not all smiles - experts', Reuters News Service, 25 March.

Singapore Economic Development Board (EDB), Annual Report, various years.

8. Appendices

Appendix A - Comparative role of development agencies to existing agencies in Australia

Agency	Role	Agencies in Australia having a comparable role (or sharing some aspect of the role)
Industrial Development Authority Ireland (IDA)	Responsibility for securing new investment from overseas in manufacturing and international services sectors and for encouraging existing foreign enterprises in Ireland to expand their businesses.	 Invest Australia; State investment agencies; and Dept of Industry, Science and Resources.
Singapore Economic Development Board (SEDB)	The SEDB's role is to promote Singapore, attract & retain foreign investments, and develop Singapore's companies to expand overseas. Major key strategies: manufacturing and services as twin engines of growth; build up own world-class companies with core competencies and nurture local enterprises; develop human and intellectual capital; leverage on science, technology and innovation as competitive tools; and Government to continue to actively support and facilitate the private sector through the provision of sound economic policies and regulation.	 Invest Australia; State investment agencies; Dept of Industry, Science and Resources; Austrade; and Dept of Education, Training and Youth Affairs.
Invest UK	Working with its UK network partners Invest UK promotes the region as a premiere investment location, providing a one-stop shop for investors. It also engages in strategy development and aftercare. The regional development agencies conduct: regional strategy and target setting; promotion of their regions; product improvement; and local aftercare.	 Invest Australia; and State investment agencies.
Malaysian Industrial Development	MIDA is the Malaysian Government's principal agency for	 Invest Australia; State investment agencies; and

Authority (MIDA)	the promotion and co-ordination of industrial development in Malaysia. Its major functions are: • promoting foreign and local investment in manufacturing and related services; • planning for industrial development; • facilitating new and existing Companies in the implementation and operation of their projects; and • providing assistance to investors.	Dept of Industry, Science and Resources.
Invest HK	Invest HK is a new government agency established in July 2000 to attract inward investment. Invest HK offers investment promotion, facilitation and aftercare services and publishes a quarterly 'Hong Kong Investment guidebook'. Activities include: • provision of information on Hong Kong's investment climate; • business matching-identification of potential business partners; • customised visit programmes; • interfacing with government departments (i.e. visa applications, regulations, trademark registration	 Invest Australia; and State investment agencies.
The Oregon Economic and Community Development Department	Assists Oregon businesses and governments to create economic opportunities and build quality communities throughout Oregon. Provides information on: • financial services; • business incentives (tax breaks); • industrial sites; • community profiles; and • regional profiles.	 Invest Australia; AusIndustry; and State Investment agencies.
Industrial Development & Investment Center - IDIC Ministry of Economic Affairs (Taiwan)	 IDIC's key operations are: promotion of domestic and foreign investment; analysis of the domestic investment environment; identification of investment opportunities; promotion, liaison, coordination and follow-up on investment projects; and promotion of technical 	 Invest Australia; State investment agencies; Dept of Industry, Science and Resources; and Treasury (e.g. analysis of domestic investment environment).

	cooperation between domestic and foreign manufacturers.	
Invest in France Agency	 promoting France as a site for direct productive investment; co-ordinate efforts of various government departments concerned with foreign investment and eases administrative hurdles; produce a variety of publications, research studies and newsletters; and has an office in 14 other countries. 	 Invest Australia; and State investment agencies.
Investment New Zealand; part of the New Zealand Trade Development Board	Investment New Zealand is the nation's investment promotion agency. It attracts and facilitates foreign investment into NZ. Its activities include: • providing timely and accurate information critical to joint-venture or location decisions; • reducing investors' investigation and establishment lead times; • identifying opportunities for strategic collaboration; • connecting investors to key decision makers and powerbrokers in government and private sectors; and • offering an international network of offices.	 Invest Australia; and State investment agencies.