The Risks and Opportunities from Globalisation

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Abstract

Globalisation, being the trend towards increasing global economic integration, is one of the largest forces, if not the largest force, affecting world economies at present. The current period of global economic integration is unprecedented and the pace and extent of globalisation will continue to have major ramifications for the world, regional and New Zealand economy. It is highly unlikely that the process of increasing global economic integration will reverse.

Globalisation offers both risks and opportunities. New Zealand can achieve significant benefits from future globalisation. The challenge will be to ensure that we are one of the adaptive economies that can successfully adopt policies that maximise the benefits and minimise the risks.

In responding to globalisation it is necessary to consider policies that promote a globally competitive environment for New Zealand businesses. Further consideration of how domestic policy settings look when viewed through an international competitiveness lens is imperative. This report offers preliminary views on what some of these policies should be. It does not answer fully the question of how New Zealand should respond to the challenges and opportunities of globalisation but it outlines initial views in order to stimulate debate on this topic.

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Introduction

Globalisation is the trend towards increasing global economic integration. It can be argued that globalisation is one of the largest forces, if not the largest force, affecting world economies at present. However, globalisation is not an inevitable or irreversible phenomenon, as illustrated by the Great Depression in the 1930s, when global economic integration went into decline. This report will argue that the current period of global economic integration is unprecedented and that the pace and extent of globalisation will continue to have major ramifications for the world, regional and New Zealand economy. It is highly unlikely that the process of increasing global economic integration will reverse.

This paper considers the risks and opportunities arising from globalisation. It will outline how the current period of globalisation is different from previous periods. It will consider which areas of the world are likely to grow further as a result of globalisation. The ramifications of globalisation will be outlined and the role for the government in responding to these will be considered. It will also look at how a number of countries including New Zealand, have responded to the challenges and opportunities of globalisation. Following this some preliminary thoughts and questions will be raised as a means of stimulating further debate on how New Zealand might best respond to global economic integration.

Executive Summary

The development of globalisation

Globalisation is not a new phenomenon. It has been taking place for hundreds of years. The Romans used monetary systems, road infrastructure and a system of rules and order to maintain control over a widely dispersed empire. While globalisation is not a new phenomenon the speed and extent of globalisation has increased significantly over the past 15 years largely as a result of several developments:

- China, India, the former Soviet Union and Eastern European states are now part of the global economy
- Technological developments, particularly in ICT and transportation, have led to a diminished importance of distance in trade.

- Income and technology have converged globally, particularly as China and India have experienced substantial economic growth resulting in reductions in poverty levels and rising incomes.

- Production processes have been relocated globally through offshoring and outsourcing of production

- Trade and capital market integration has accelerated.

The future for globalisation

It is highly likely that the developments that we have witnessed in the past 15 years will continue. There remain a number of pressures or risks to global integration and the global economy from developments such as climate change and opposition to economic integration by interest groups. Despite such risks or pressures, the overall outlook overall for further economic integration and for world growth is positive.

An analysis of likely future world economic events suggests

- Prospects for global economic growth, as forecast by the World Bank and IMF are for a continuation of the positive growth that has occurred globally over the past decade.

- The strongest growth will continue to be seen in Asia.

- Global economic integration is likely to intensify further as international trade and investment continue to expand.

- There is likely to be more dispersion of global production processes with more specialisation.

- The highest rates of growth in manufacturing exports will be for technologically advanced goods.

- Rates of adoption of new technologies and innovation are likely to accelerate further. Growth in technologically advanced exports will provide more incentive for research and development.

- The adoption of new technologies will require more advanced skills in the workforces of world economies.

- Pressures on resource prices are likely to continue as high rates of growth in countries such as China drive up the prices of raw materials. Population growth will also add to demands for raw materials as well as various agricultural products.

- High rates of economic growth and population growth will also result in added pressures on the environment, including through climate change. Governments will come under greater pressure to respond to these challenges.

- There are a number of risks to the global economy, including global imbalances, the direct and indirect effects of climate change and geopolitical instabilities.

- There is a challenge of trying to ensure that the benefits of globalisation are spread across the population. The process of globalisation will result in some sectors, or those that perform tasks in a production process that can be easily contracted out across

borders, facing added competition, either as a result of trade liberalisation or, more likely, from lower-cost production from abroad. Such changes could result in more opposition to globalisation emerging over time, unless economies adapt and respond to opportunities presented by globalisation.

Overall, we are optimistic about the prospects for the global economy. Areas of comparative advantage, such as in commodities including various agricultural products, will remain important. There are a number of emerging patterns associated with this outlook such as increasing returns for high-technology manufacturing and incentives for more research and development expenditure; and the continuing dispersion of production tasks of firms globally. These trends are likely to have implications for all countries, and not just for firms and employees but also for government expenditure. There are also a number of risks to global growth, which we will discuss. Many of these risks are manageable, but some are unknown.

Preliminary views on some of the policies that could be considered in response to globalisation

The question arises of what could be done to assist businesses and individuals in making the most of the opportunities of globalisation. Preliminary views on some policy areas are outlined in this report. These views should be regarded as indicative only. However, more in-depth analysis of policies that affect the international competitiveness of New Zealand businesses and individuals will be essential.

The movement towards further global economic integration will require greater emphasis in New Zealand on policies that support the development of a business environment that is globally competitive. Examples of policies that could support this objective include:

- Improving the quality of New Zealand's education system to provide a well-trained and international recognised skilled workforce for New Zealand firms. Specific initiatives that could be considered include:

  - Greater emphasis by the Ministry of Education, NZQA and professional representative bodies on obtaining recognition of New Zealand qualifications internationally.

  - Designing initiatives to ensure that school and university resources are applied to areas where there are shortages of skilled personnel; providing for the special needs of students who are failing in the school system at present; and providing counselling to ensure students are making well-informed decisions about course selection.

- Boosting levels of innovation in New Zealand. Our current levels of research and development and numbers of patents being filed are below those of other OECD nations.

- Continuing to improve New Zealand's infrastructure. There are perceptions internationally, as shown in the World Competitiveness Yearbook or the Growth Competitiveness Index, that New Zealand has very poor infrastructure in a number of areas such as electricity and rail. While our inferior rail infrastructure can largely be explained by our low population and mountainous terrain concerns about electricity supply are a significant concern. Current or planned investments in electricity should hopefully address these concerns, but there will be an ongoing need to monitor the

state of New Zealand's electricity supply infrastructure and address any issues proactively before problems emerge. Investments in broadband infrastructure will also continue to be important.

- Evaluating current regulation and competition policy settings to ensure that they are efficient and effective and have minimal negative impact on the international competitiveness of the New Zealand business environment.

- Developing and maintaining a New Zealand taxation system that is competitive relative to other countries. Recent initiatives outlined in the 2007 Budget, including the reduction in the rate of company taxation, initiatives being progressed under the international tax review with respect to controlled foreign companies (by providing an exemption for real business income earned by overseas subsidiaries) and tax credits for research and development will contribute significantly to this objective.

- Pursuing trade liberalisation in our key export markets. As well as seeking new market opportunities through entering new markets and by diversifying our export mix, New Zealand will also need to make the most of the opportunities that will arise in areas where it has an existing comparative advantage, particularly in areas of agriculture, such as dairy. New Zealand is particularly disadvantaged by protectionism in agriculture, where tariffs and subsidies are higher than for non-agricultural products. It will be important for New Zealand to continue to pursue trade liberalisation in our key markets.

Globalisation offers both risks and opportunities. The current pace and extent of globalisation is unprecedented. New Zealand can achieve significant benefits from future globalisation. The challenge will be to ensure that we are one of the adaptive economies that can successfully adopt policies that maximise the benefits and minimise the risks. This report offers preliminary views on what some of these policies should be, in order to stimulate debate on this topic.

Part 1: Development of the global economy

In this part of the report, we examine whether the current period of globalisation is any different from past periods of global economic integration. We also look at the results achieved in terms of economic growth, indicators of globalisation over time and the enablers of globalisation. Understanding these enablers helps build an understanding of how global economic integration has changed over time and how permanent these changes are, thereby providing a basis for subsequent parts of this report.

History of past global economic integration

Economic integration of different regions of the world is not a new phenomenon. The Romans 2,000 years ago used an extensive transportation network, language, legal system and currency to unify their far-flung empire. This economic integration led to trade flows and economic development across the Roman Empire. Centuries later European powers established colonies throughout the world.

From the end of the Napoleonic Wars in 1815 to the beginning of World War One global economic integration sped up as new technology was implemented: steam power replaced sail ships; railroads replaced the horse and cart and the barge; and the opening of the Suez Canal reduced travel times between Europe and Asia. The telegraph came into use. The result was that trade increased markedly as competition broke down some significant monopolies. Countries that did particularly well at this time were the capital-rich Western European countries, particularly Britain, which were at the centre of the trading system and the international monetary system. Manufactured goods, financial capital and labour tended to flow from Western European countries to countries that had abundant land and natural resources which in return exported these resources back to Europe. Policies that were pursued over this period often emphasised openness to trade, capital mobility and migration.[1]

Global economic integration then took a major step back in World War one, World War Two and the Great Depression. Policies that had previously emphasised free trade were replaced with rising tariffs (see table below) and monetary instability. However, technological innovation, particularly in the area of transportation, did advance significantly during this period.

Table 1: Average tariff levels in selected countries (%) 1925 and 1931[2]

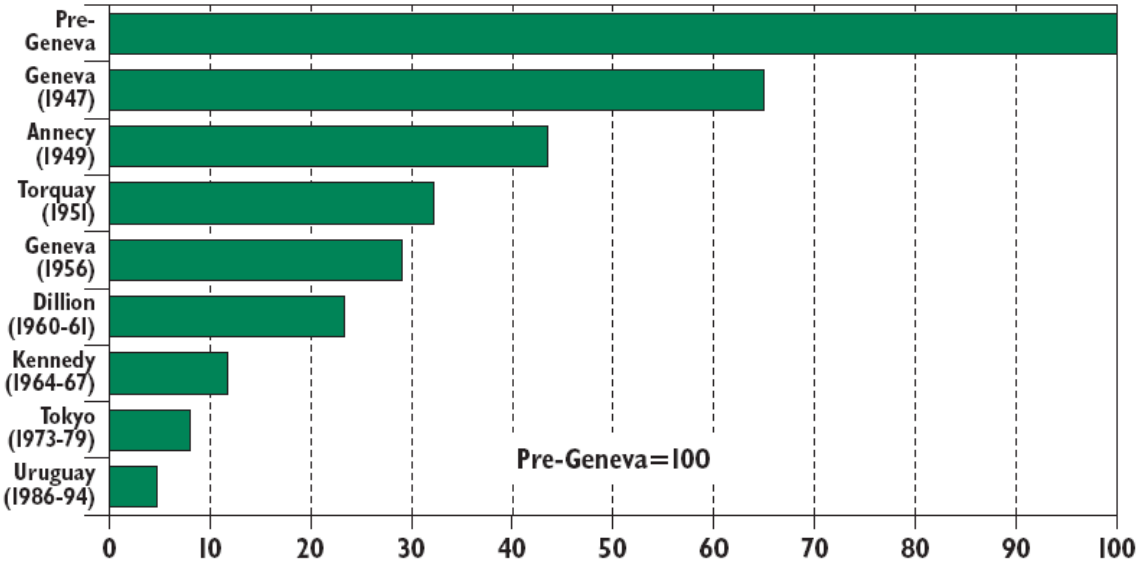
	1925	1931
France	9	38
Germany	15	40
Italy	16	48
United Kingdom	4	17
United States	26	35

[1] There was also growing appreciation of the writings of Adam Smith and David Ricardo and theories of comparative advantage over this period.

[2] Source: Irwin D (2002) cited in HM Treasury paper Long Term global economic challenges and opportunities for the UK

In the period immediately after World War Two, the major economies of the world were focused on rebuilding physical infrastructure and the international trade and monetary systems. Major economic institutions that were established in 1944 such as the IMF and the World Bank, and the General Agreement on Tariffs and Trade (GATT), which was established in 1947, are still relevant today. Physical infrastructure that was rebuilt in Japan and Europe laid the basis for significant economic growth in these regions. World trade expanded significantly in the post-World War Two period as the first GATT negotiations succeeded in reducing average global tariffs by around 20% and a post-war framework for further multilateral trade negotiations was established. These successive GATT rounds resulted in significant reductions in tariff barriers as illustrated by the chart below showing the trade-weighted average US tariff rate.

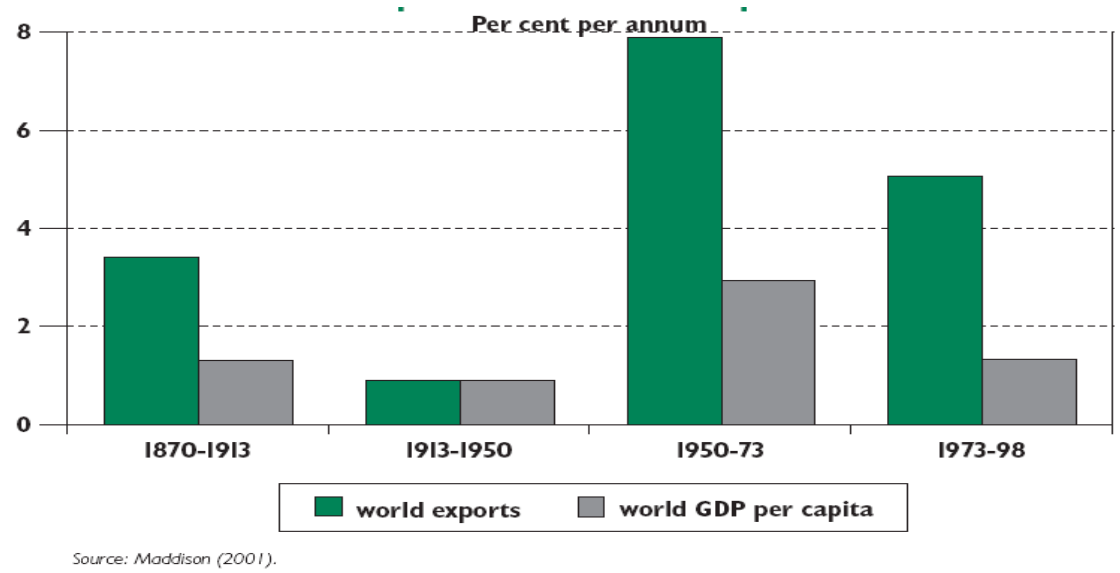
Figure 1: Weighted Average US Tariff Rate (Index)



Source: Baghwati (1989) and Siebert (1997).

As tariff barriers fell, world trade volumes rose substantially and increased faster than Gross Domestic Product (GDP) per capita growth. It is interesting to compare the rates of growth in both world GDP per capita and exports in the period where there was increasing protectionism (1913 until the end of World War Two) and the period since World War Two when tariff levels declined.

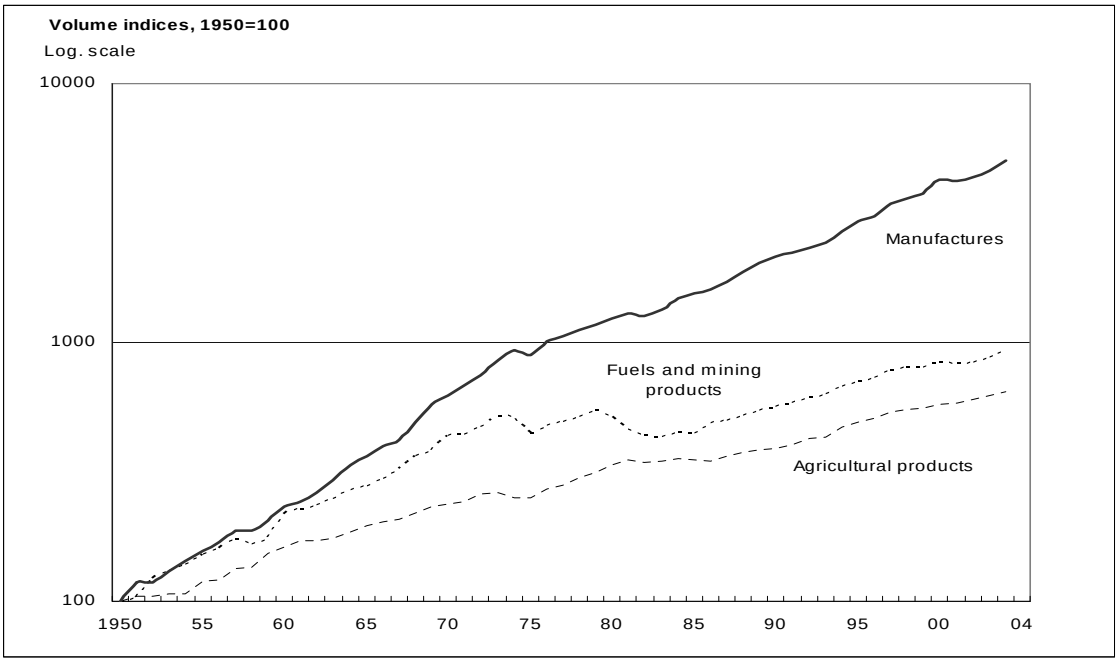
Figure 2: World Export and GDP per capita growth



Source: Maddison (2001).

While world exports have risen substantially in recent years, the rates of growth in agricultural exports, and to a lesser extent fuels and mining exports, have not been as great as the increase in manufacturing exports.

Figure 3: World merchandise trade volumes by major product group 1950-04[3]



Source: WTO international trade statistics 2005

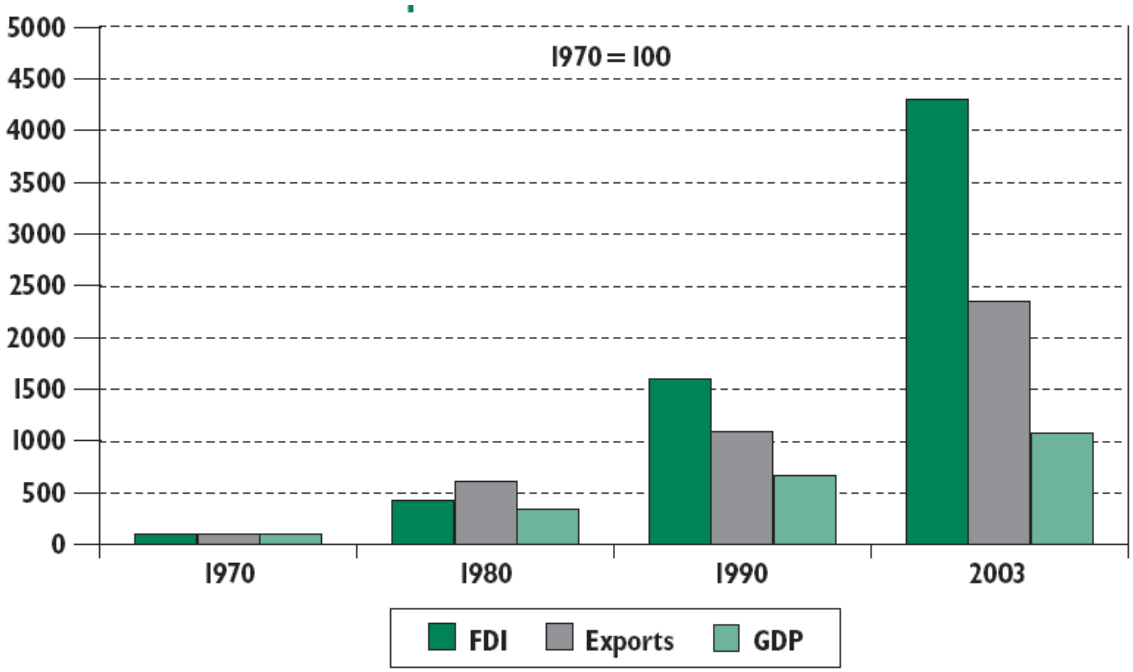
One of the objectives of the present Doha Development Agenda round of multilateral trade negotiations is liberalising agricultural tariffs and reducing agricultural export

[3] http://www.wto.org/english/res_e/statis_e/its2005_e/charts_e/chart_ii02.xls

subsidies. If the Round is ultimately successful, the present lower levels of agricultural trade volumes relative to other products may be reversed.[4]

While trade volumes have increased over the years, there has also been a substantial increase in the levels of foreign direct investment (FDI) since the 1980s. World FDI flows grew dramatically in the 1980s and the 1990s and at rates substantially higher than the rates of growth of global GDP and trade (see Figure 4 below).

Figure 4: World GDP, FDI and Export Indices



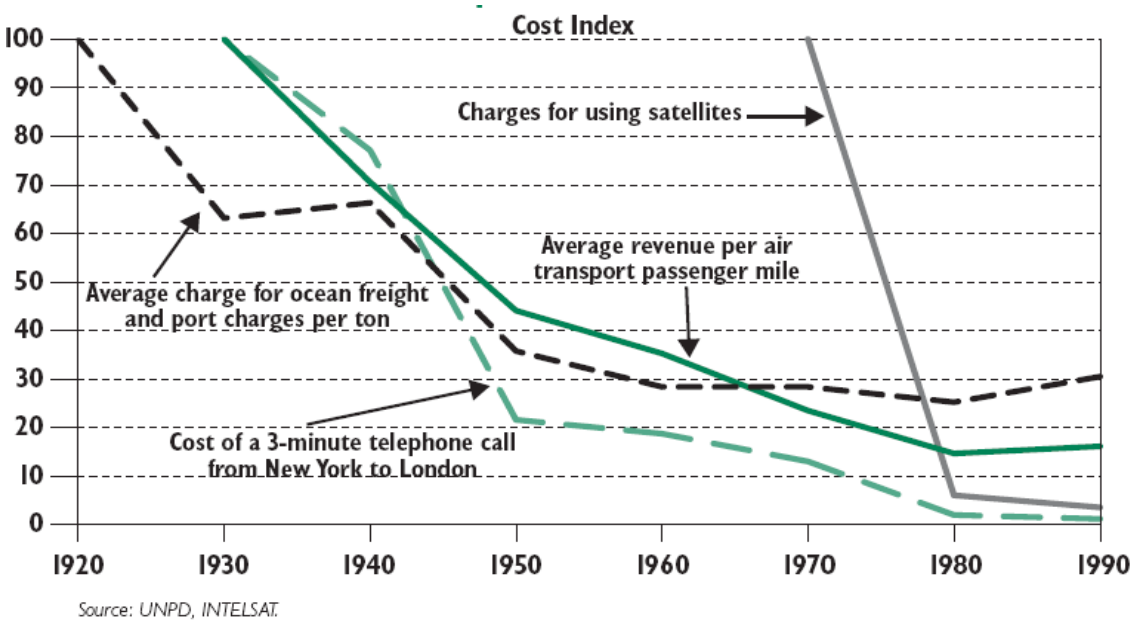
Source: HM Treasury[5]

How globalisation until the late 1980s is similar to today.

There are many similarities between the underlying forces that enabled global economic integration in the past and those of today. Firstly, technological change as in the past continues to be a major driving force of globalisation. Advances in communication and computer technologies have significantly reduced the costs of supply chain management among global suppliers of goods and services.

[4] There is a wide range of estimates of gains that would occur in agricultural prices as a result of trade liberalisation. A summary of these views is provided in Box 5.2 of the IMF World Economic Outlook, September 2006.
[5] HM Treasury Long-term global economic challenges and opportunities for the UK; December 2004.

Figure 5: Costs of Transportation and Communication



Secondly, there continues to be a substantial growth in the range of goods and services that are now traded primarily due to technological advances over time continuing to allow the trade of new ranges of goods and services. In the late 1800s advances in refrigeration allowed New Zealand meat producers to export frozen meat to the United Kingdom. In the current period advances in information and communication technologies now facilitate international trade in a new range of services, from call centre operations to the provision of advanced financial, legal, medical and engineering services.

The third major similarity between the current period of global economic integration and the past is the important role of Government policies in supporting, or at least permitting, global economic integration. In the 19th century, Britain's embrace of policies of free trade and capital flows helped propel economic integration. The industrial revolution, with its new technologies for production, meant that Britain and then other European powers were able to take advantage of the opportunities of globalisation over this period. While progress in trade liberalisation has been slow at times, Governments did generally work to remove barriers to trade and capital flows. In the post World War Two period, the Governments of the major economies worked together to progressively liberalise tariffs over subsequent rounds of the GATT (and now World Trade Organisation) trade negotiations.

How global economic integration is different today

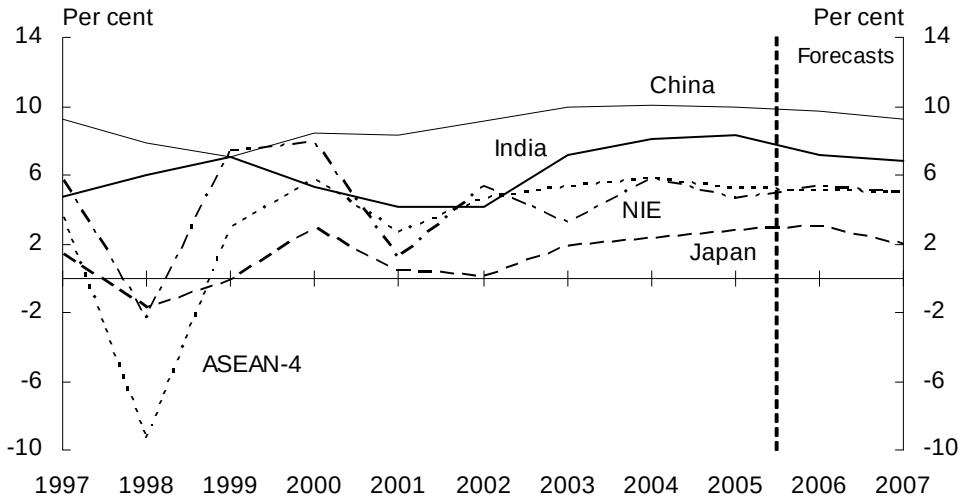
While there are a number of similarities between many of the key enablers to global economic integration in the past and the present, it can be argued that there are also particular differences. One of the main differences is that the scale and pace of current global economic integration is unprecedented. An illustration of this is the growth in global trade relative to GDP over time. In recent years, global merchandise exports have been

above 20% of GDP, compared with about 8% in 1913 and less than 15% as recently as 1990.[6].

The emergence of China, India and the former communist bloc countries of Eastern Europe in the global economy

Recent growth in world exports has been fuelled by the emergence of China, India and the former communist bloc countries of Eastern Europe into the global economy. China largely had a closed economy until 1978 and has been slowly liberalised since this time. In Eastern Europe, the toppling of the Berlin Wall in 1989 marked the end of the Cold War and the start of substantial economic reform along with greater economic integration of Eastern European economies into the world. The effect of these changes has been substantial, including the addition of 700 million new workers to the world's non-agricultural labour force since 1995, with an additional 1.5 billion expected over the period to 2030.[7]

Figure 6: GDP growth in Asia (1997-2007)[8]



Source: IMF and Australian Treasury.

The emergence of China and India has contributed to a substantial rise in the proportion of world economic activity that is centred on Asia. Twenty five years ago Asia produced only around one-fifth of the world's output, measured in purchasing power parity terms, yet accounted for around 54% of the world's population.[9] Today, Asia's share of world output has risen to over one-third, while its share of world population has remained the same. Asia's share of world GDP is expected to further increase in the future.

[6] Maddison (2001) and IMF data quoted in a speech by Ben S Bernanke to the Federal Reserve Bank of Kansas City's 13th Annual Economic Symposium, Wyoming, August 25 2006.

[7] Quote from D. Evans, former US Commerce Secretary: "In May 1945 there were 24 countries as democracies and free market economies, driven by competition. Sixty years on there are more than 100. It has gone from a couple of hundred million workers to more than 2 billion in free market economies and includes India and China. So we have to prepare ourselves for competing with billions of other workers around the world." (Financial Times, February 2006)

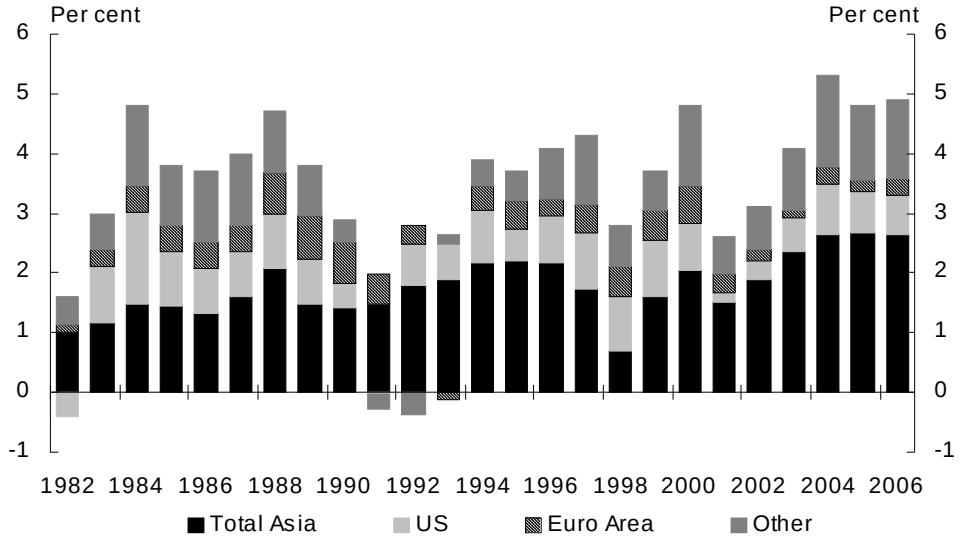
[8] Parkinson, M. (18 May 2006). Asian Economic Growth Prospects and the Impact on Australia; Address to the Leading Australia's future in Asia (LAFIA) program, Australian National University; http://www.treasury.gov.au/contentitem.asp?NavId=&ContentID=1115

[9] US Census Bureau, International Data Base

The Chinese and Indian economies have grown by over 700% and 250% respectively since 1980 and stocks of inward FDI have increased from less than 1% of GDP in 1980 to currently over 35% and 5% respectively.[10]

Asia now accounts for just over half of total world economic growth (in purchasing power parity terms). This compares with 17% of world growth taking place in the United States and 11% in Europe (see figure 7 below). China and India alone have accounted for 24% and 8% of world growth respectively.

Figure 7: Contributions to world growth (1982-2006)[11]



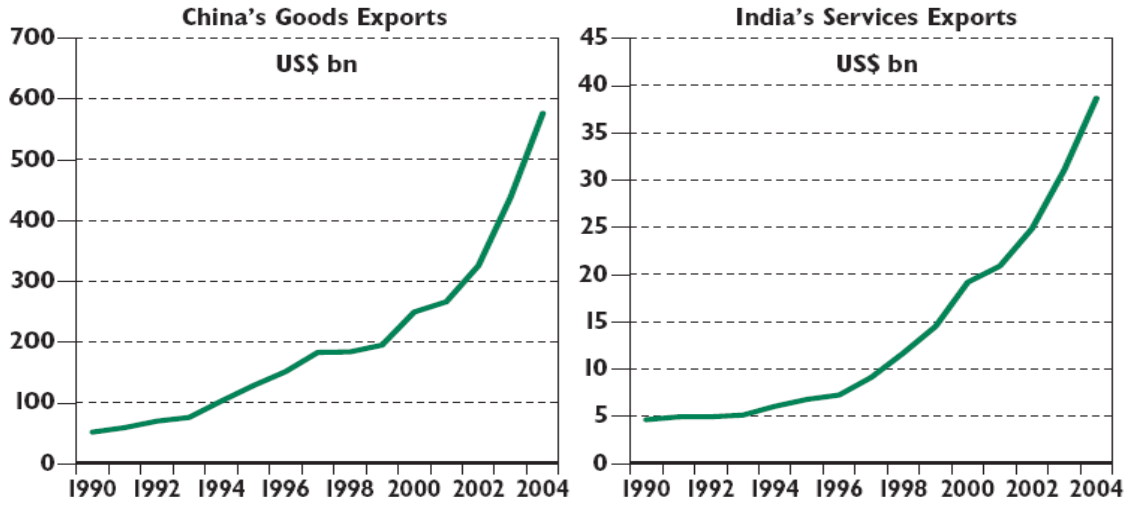
Source: IMF and the Australian Treasury

These changes have taken place due to a number of factors including improvements in technology, communication and information technologies, production processes and transportation, and reduced trade barriers. Economic activity is now increasingly dispersed across continents and encompasses an even greater range of goods and services.

[10] HM Treasury Long-term global economic challenges and opportunities for the UK; p 17; December 2004.

[11] Parkinson, M. (18 May 2006). Asian Economic Growth Prospects and the Impact on Australia; Address to the Leading Australia's future in Asia (LAFIA) program, Australian National University; http://www.treasury.gov.au/contentitem.asp?NavId=&ContentID=1115

Figure 8: China's Goods Exports and India's Service Exports since 1990



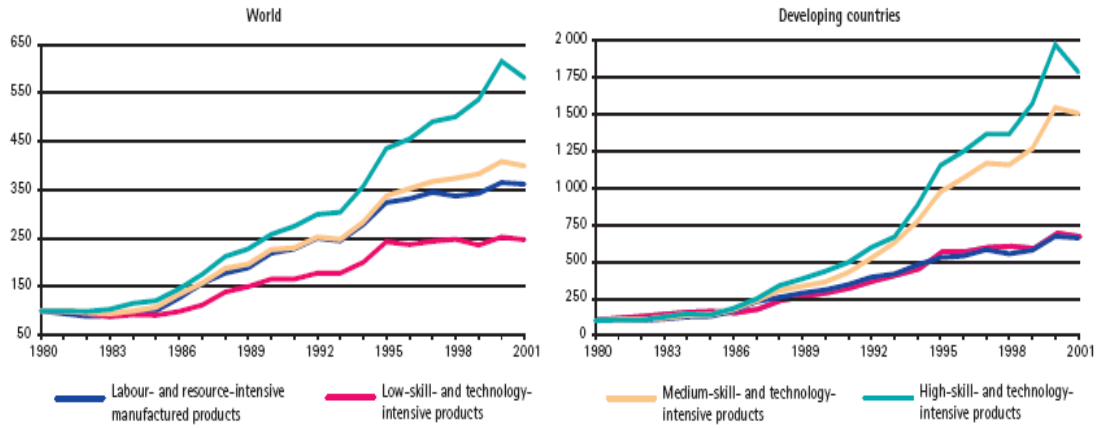
Source: EIU

The export mix of some developing countries is changing

Another difference between past and present economic integration is that the distinction between developing countries which are largely raw material suppliers and capital-intensive developed countries is becoming less clear cut. In the past the vast majority of manufacturing plants in the world were congregated in the developed economies, particularly in Europe, and relied in part on imports of raw materials from developing economies. Today manufacturing plants are widely dispersed throughout the world and are no longer concentrated in the more developed economies of the world.

Figure 9: Export growth of different categories of manufactures, by factor intensity, 1980-2001

(1980=100)



Source: UNCTAD[12]

[12] UNCTAD Development and Globalisation: Facts and Figures; 2004; www.unctad.org/en/docs/gdscsir20041c6_en.pdf

According to the UNCTAD study Development and Globalisation: Facts and Figures; technologically intensive products and goods made with higher levels of skills have experienced the highest export growth worldwide. Low-skill and low-technology intensive manufactured goods have displayed slower export growth (see figure 9 above).

From around 1990 there has been a marked acceleration in high- and medium-skill intensive and technology-intensive products from developing countries. These developments reveal that developing economies have increasingly moved from being seen as a source of only low-skill intensive and labour-intensive products to being seen as an increasing source of more advanced manufacturing products. At the same time developing countries are continuing to be seen as a supplier of low-cost, labour-intensive products.[13]

Greater dispersion of production tasks

Production processes are also becoming increasing geographically fragmented. Historically, manufacturing plants were located in one place. For example, the earliest car manufacturing plants had all of their production processes located in one place, making it possible to observe basic raw materials being transformed into a car. Today, firms are breaking down the production chains into smaller discrete tasks that can be performed in different locations which allows them to achieve a competitive advantage (such as to minimise costs, and to gain access to skills and knowledge or better access to markets). It is becoming an increasingly common feature in many large companies to locate their research and development in one country and their manufacturing plants in other countries.

Improvements in information communication technologies have meant that tasks in the production process previously viewed as non-tradeable across borders have become more easily traded as telecommunication costs have dropped to very low prices. One classic example of this new "trade in tasks" is the relocation of a number of call centres to India from OECD economies.[14]

An example of this process is the dispersion of the aircraft manufacturing process across a number of countries by Boeing. An example of this happening in New Zealand is companies such as Macpac retaining their research and design tasks in New Zealand but having most of their tents and clothing manufactured across a number of countries in Asia. Icebreaker has a similar strategy of doing design in, and sourcing merino wool from New Zealand but physically producing garments in China for export to third countries.

The relocation of production processes to foreign countries essentially takes place via two mechanisms:

- External outsourcing (contracting out parts of the production processes to foreign suppliers); and
- Offshoring (moving production abroad by setting up foreign subsidiaries).

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[13] The increase in high -skilled and technologically intensive products, however, i s not across all developing economies. Also, within some major developing economies, such as China, there are substantial dispersions in rates of development. Major coastal cities, such as Shanghai are becoming centres for the production of high-skill and technologically intensive products, while lower-skilled labour-intensive products are being produced in inland China or in lower labour cost areas in Vietnam and the Philippines.

[14] For more on the topic of 'trade in tasks' see Richard Baldwin Globalisation: the great unbundling(s); Prime Minister's Office, Economic Council of Finland; 20 September 2006.

Outsourcing and offshoring can take place across a broad range of industries. Outsourcing is a particularly popular approach for producers in the textile, clothing, footwear sectors, as well as for call centres for a number of companies and banks. Offshoring is more common in sectors where it is important to maintain close oversight of intellectual property and more complex production processes.

Development of more complex capital markets

A further major development in global economic integration that differs from previous periods has been the development of more complex capital markets. Today, international investors can hold an array of debt instruments, equities and derivatives, including claims on a broad range of sectors. Flows of foreign direct investment are much larger relative to output than they were 50 or 100 years ago. Along with this there has been the greater standardisation of accounting practices as well as technological advances to facilitate capital movements.

Conclusion

As outlined in this part of the report, while global economic integration is not a new phenomenon there are marked differences between the current period of globalisation and previous periods. The integration of all major economies and major populations of the world, levels of dispersion of production processes around the world, development of more sophisticated financial markets and greater trade and investment flows than previously, have lead to an unprecedented pace of global economic integration.

In the next part of this report, we examine forecasts for the world economy and the pressures and opportunities arising, in order to understand whether or not the current pace of global economic integration is likely to be maintained or even intensify in the future. This will help frame possible policy responses to globalisation for a small, open economy such as New Zealand. These will be outlined in Part 3 of this report.

Part 2: Future trends in the global economy

In this part of the report we will outline expectations for the future development of the global economy and consider some of the pressures that are arising as a result of both current and likely future economic growth.

World and regional economic growth projections

In December 2006, the World Bank published forecasts of long-term growth prospects for the world, high-income countries and the developing economies of different regions as well as the global economy as a whole. They forecast that world economic growth would increase to 3.5% in 2008 and then over 2008 to 2030 would be 2.9% per annum. In the future per capita GDP of developing countries is expected to grow at a higher rate than that of developed economies (see table 2 below).

Table 2: World Bank forecasts of long-term growth prospects[15]

The Global Outlook in Summary								
Percentage change from previous year, real GDP growth								
					Estimate		Forecast	
	1960-1980	1980-2000	2004	2005	2006	2007	2008	2008-30
World	4.7	3.0	4.1	3.5	3.9	3.2	3.5	2.9
High income	4.5	2.9	3.3	2.7	3.1	2.4	2.8	2.4
OECD countries			3.2	2.6	3.0	2.3	2.7	
Euro Area			1.7	1.4	2.4	1.9	1.9	
Japan			2.7	2.6	2.9	2.4	2.5	
United States			4.2	3.2	3.2	2.1	3.0	
Non OECD countries			6.4	5.8	5.3	4.7	4.8	
Developing countries	6.2	3.4	7.2	6.6	7.0	6.4	6.1	4.0
East Asia and Pacific	5.5	8.5	9.0	9.0	9.2	8.7	8.1	5.1
Europe and Central Asia	10.7	0.6	7.2	6.0	6.4	5.7	5.5	2.7
Latin America and Caribbean	5.5	2.2	6.0	4.5	5.0	4.2	4.0	3.0
Middle East and North America	5.9	4.0	4.8	4.4	4.9	4.9	4.8	3.6
South Asia	3.7	5.4	8.0	8.1	8.2	7.5	7.0	4.7
Sub Saharan Africa	4.4	2.2	5.2	5.5	5.3	5.3	5.4	3.3
Developing countries excluding China and India	6.6	2.3	6.1	5.1	5.5	4.9	4.9	

Source: World Bank

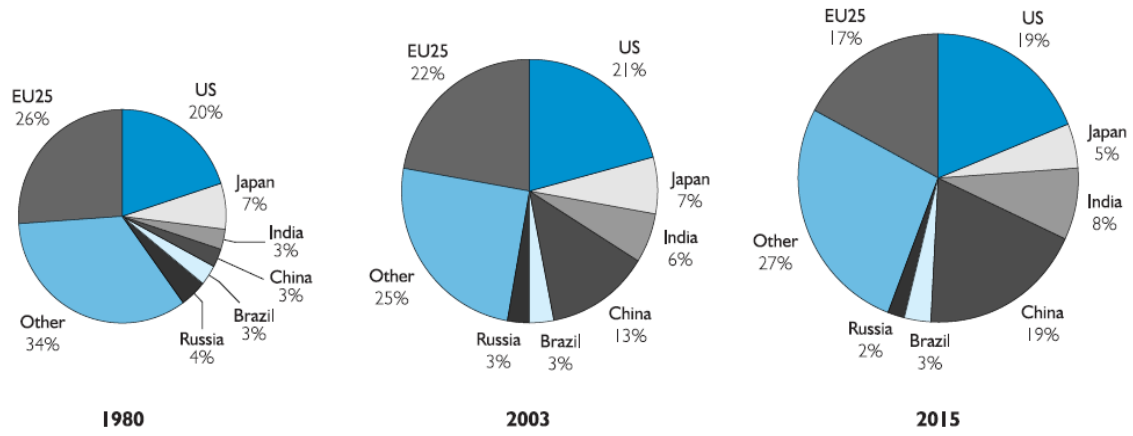
The World Bank is continuing to forecast that developing countries in the East and Central Asia region will continue to have the highest growth rates going forward.

Other organisations, such as the IMF and OECD, have also published forecasts of economic growth. While there are some differences in country projections for growth, the trends are broadly similar in terms of Asia being expected to have the highest rates of growth compared with other regions.

[15] International Bank for Reconstruction and Development/World Bank Global Economic Prospects 2007; table 1.1

Figure 10: Shifting shares in global economic output: 1980 to 2015[16]

(in purchasing power parity terms)



Source: IMF, Consensus Forecast, HM Treasury

Note: Areas indicate size of global economy

Since 1980, there has been a significant change in the location of world economic activity. A greater proportion of world economic activity is now located in Asia, with China and India undergoing significant economic growth in recent years and a projected increase of global economic output in the future. Twenty years ago just 10% of manufactured goods came from developing and emerging countries whereas by 2020 the figure will be 50%.[17] Developing countries are also increasingly involved in the services sector. The rates of growth in India in the services sector have been particularly significant. At the same time there has been significant growth in levels of capital flows with countries such as China, India, Brazil and Russia being significant destinations for foreign investment.

Continued advances in technology and innovation

As outlined in Part 1 of this report, the ways in which goods and services are produced and traded around the world have undergone fundamental changes in the last decade primarily due to technological change and innovation. There is now increased use of global production chains, with goods being designed in one country, produced in another and exported to third countries. Improvements in communications technologies have meant that an increasing number of services can now be traded in a timely way over the internet.

One major area of substantial advancement in technology has been in information and communication technologies (ICT), as illustrated by the substantial increases in internet access (as outlined below):

[16] HM Treasury (April 2006) The case for open markets: how increased competition can equip Europe for global change, http://www.hm-treasury.gov.uk./media/74C/73/eer_openmarket070406.pdf
[17] Ibid

Table 3: World internet usage and population statistics

World Regions	Population (2007 Est.)	Population % of World	Internet Usage, Latest Data	% Population (Penetration)	Usage % of World	Usage Growth 2000-2007
Africa	934 million	14.2 %	**33 million**	3.6 %	3.0 %	638.4 %
Asia	3,712 million	56.5 %	**399 million**	10.7 %	35.8 %	248.8 %
Europe	810 million	12.3 %	**315 million**	38.9 %	28.3%	199.5 %
Middle East	193 million	2.9 %	**19 million**	10.0 %	1.7 %	491.4 %
North America	335 million	5.1 %	**233 million**	69.7 %	20.9%	115.7 %
Latin America/Caribbean	557 million	8.5 %	**96 million**	17.3 %	8.7 %	433.4 %
Oceania / Australia	34 million	0.5 %	**18 million**	53.5 %	1.7 %	142.0 %
WORLD TOTAL	6,575 million	100.0 %	**1,114 million**	16.9 %	100.0 %	208.7 %

Notes: (1) Internet usage and world population statistics were updated on 10 March 2007. (2) Demographic (Population) numbers are based on data contained in www.world-gazetteer.com. (3) Internet usage information comes from data published by www.Nielsen//NetRatings.com by the International Telecommunications Union, by local NICs, and other reliable sources. (4) Information collated and published at www.internetworldstats.com.

A result of advances in ICT technologies has been that many firms have invested in such technologies to help drive efficiencies in productivity, and lower costs and improve profitability. Internationally a growing number of companies are using ICT technologies to engage in global trade as well as transform the way they operate.

There is a substantial prospect of further expansion of the internet across the world and further improvements in the capabilities and prices of ICT. Rising incomes in countries such as China and India have led to substantial increases in demand for such technologies not only by producers of goods and services but also consumers. This is likely to have substantial ramifications in the future. Over time, more consumers are likely to use the internet to source goods and services.[18]

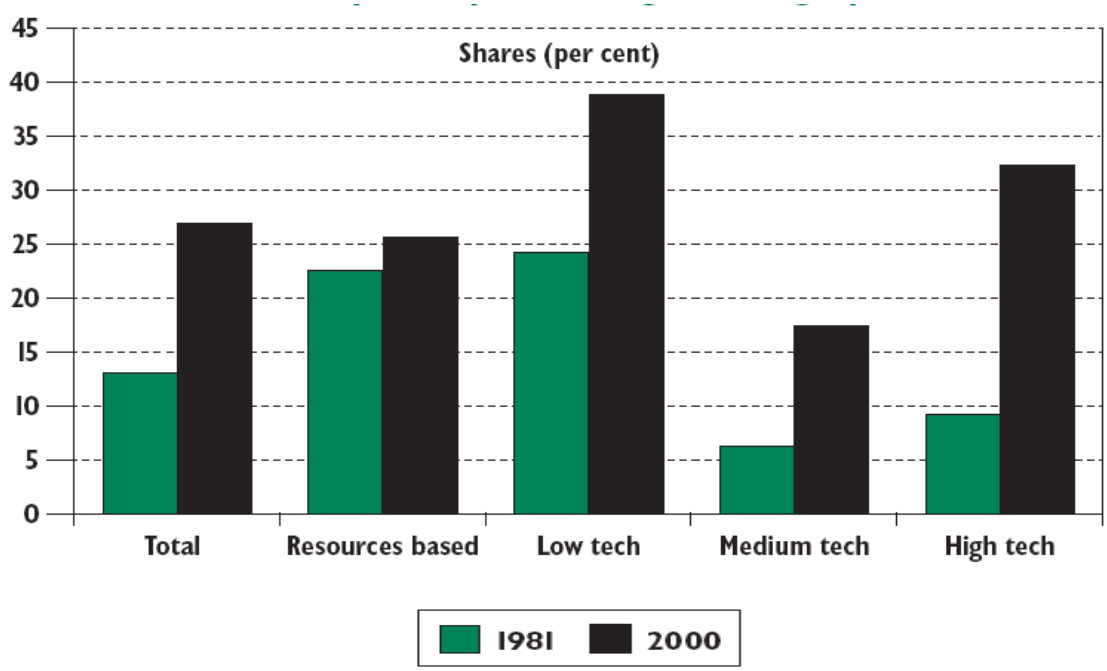
Increasing rates of globalisation are also likely to mean that the speed of adoption of new technologies is likely to increase. It took nearly 40 years for 50 million people to get a radio and 16 years for 50 million people to own a PC, but only five years for 50 million to connect to the internet. This increased speed of adoption reflects both supply and demand factors. On the supply side new technologies are being developed at a increasingly faster

[18] For more on this topic see World Bank Global Economic Prospects 2007; Chapter 4: New Pressures in Labour Markets: Integrating Large Emerging Economies and the Global Sourcing of Services.

pace, while, on the demand side, there is now more awareness of the new technologies that are available. This is due to the internet, but also to increased competition, which has caused prices of high-technology goods to fall. As this trend persists, it will be important to continue to invest in new technologies to improve efficiencies in production processes but also to continue with research and development in order to try to keep up with competitors.

Developing countries are also becoming more aware of the importance of investing in new technologies and innovation. Countries such as India and China have recognised the importance of the high- tech sector in the development of their economies. Chinese spending on research and development reached 1.1% of GDP in 2002, compared with 0.6% in 1996.[19]

Figure 11: Developing and emerging countries' share in manufacturing exports by technological category



Source: HM Treasury using UNIDO data[20]

The result of increases in research and development expenditure and innovation has been that more developing and emerging economies are now exporting more advanced goods than previously. It can be expected that, in the future, major developing economies in Asia, such as India and China, will continue to invest substantially in research and development with the objective of exporting greater volumes of technologically advanced goods.

[19] In comparison New Zealand spends 1.2% of GDP on research and development.
[20] HM Treasury Long-term global economic challenges and opportunities for the UK; December 2004

Skills

In the future it is likely that the demand for skilled workers will increase as new technologies are introduced. The ability of firms to take advantage of new technologies will depend in part on the supply of appropriately skilled workers. Likewise the demand for skilled labour will depend on the type of products that are being traded.

Increases in economic integration in recent years have also influenced growth in outsourcing and offshoring the production of goods and services. One reason this has taken place is to make use comparative advantages in other countries such as the supply of labour. In China one of the major attractions has historically been the lower cost of labour, particularly unskilled labour. Similarly in India the attraction, particularly in the services sector has been the lower costs of often skilled labour, such as those who speak English. However, proximity to markets is also key driver of business location decisions, rather than labour costs alone.

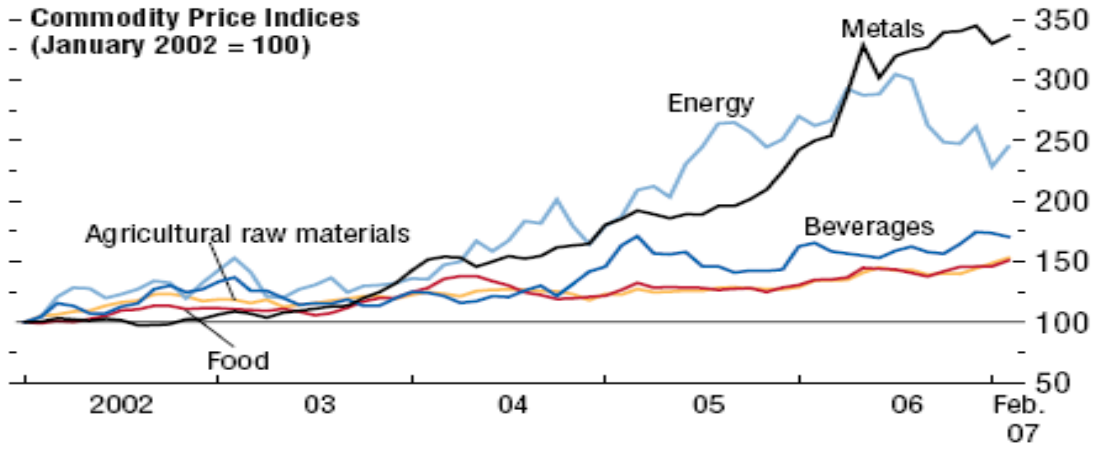
Large numbers of people in emerging economies such as China, India and elsewhere in Asia have recognised the importance of education and improving the skills of the workforce. China and India are educating at present around 2 million graduates per annum. These developments and investments in research and development have meant that these economies are no longer purely focused on the production of goods and services that rely on abundant supplies of low-cost labour. While developing economies such as India and China do continue to produce such low-labour-cost outputs, they are now producing goods and services that are more technologically advanced as well.

An implication of the increasing demand for highly skilled employees is likely to be a move towards greater mobility of labour globally. As international competition for skilled employees rises, this may result in a greater “brain drain” from countries with lower standards of living or with lower wages for individuals who have skills that are recognised in higher-wage economies. Having flexible immigration policies that allow for greater access for skilled employees to a country is likely to continue to be important in the future. Skilled labour groups, whether skilled tradespeople, scientists or other skilled groups, move across borders for a variety of reasons. People move not only for reasons of economic opportunity but also lifestyle. Countries that offer high standards of living, including reasonable economic returns and a good living and physical environment, such as New Zealand and other countries in the developed world, are likely to continue to be sought after destinations for skilled migrants.

Commodities

High levels of demand in countries such as China are also impacting on the prices of commodities, particularly metals. These metal price rises are highly advantageous to countries that have high reserves of various metals such as Australia and Chile (copper).

Figure 12: Non energy commodities - Metals, Beverages, Food and Agricultural Raw Materials Price Indices (January 2002 = 100)



Source: IMF[21]

Countries that have a comparative advantage in commodities such as metals and other energy products can obtain significant benefits from globalisation, particularly as other countries economies grow. As production expands in countries where there are relatively low levels of raw materials and energy supplies relative to exports of manufactured products, such as China, there will be increasing demand for the raw material and energy inputs for the goods produced.

New Zealand is highly competitive in a number of commodities that are exported, such as dairy products. The recently announced forecast rise in price per kilogram of milk solids by Fonterra is an illustration of how competitive New Zealand is in this sector. In the future indications of competitors facing high input prices abroad as a result of factors such as the continuing Australian drought and the rise in price of corn (which is fed to cows in the United States and is also used in biofuels production), as well as federal budget pressures in the United States and the European Union, are indications that New Zealand producers of dairy produce are likely to remain competitive. However, the presence of trade barriers and subsidies on agricultural commodities in a number of developed economies distort the ability of suppliers to exploit comparative advantages that some countries have in agriculture.

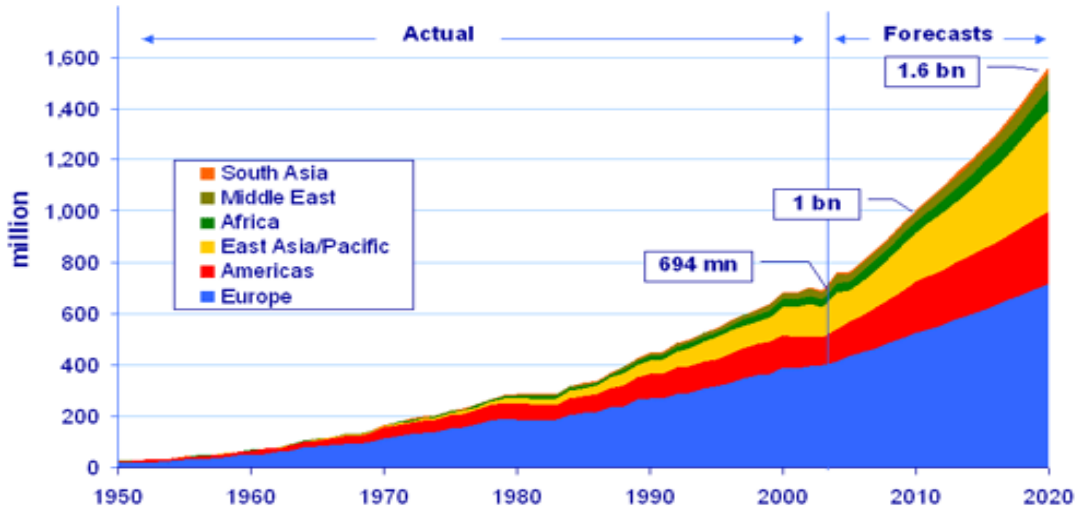
[21] IMF World Economic Outlook 2007; figure 1.21; April 2007.

Services

Tourism

Global tourism is forecast to expand rapidly over the next decade:

Figure 13: Actual and forecasted tourism arrivals



Source World Tourism Organisation

The total tourist arrivals forecasts by the World Tourism Organisation indicate that by 2020 the top three receiving regions will be Europe (717 million tourists), East Asia and the Pacific (397 million) and the Americas (282 million), followed by Africa, the Middle East and South Asia. East Asia and the Pacific, South Asia, the Middle East and Africa are forecast to record growth at rates of over 5% per year, compared with the world average of 4.1%. The more mature regions of Europe and the Americas are anticipated to show lower than average growth rates. Europe will maintain the highest share of world arrivals, although there will be a decline from 60% in 1995 to 46% in 2020.

Education

As global economic integration has resulted in greater flows of capital, goods and services, there has been increased demand for international education services. Many Governments are looking to higher education to play an important role in developing a deeper understanding of languages, cultures and business practices around the world.

Figure 14: Long term growth in the number of tertiary students enrolled outside their country of citizenship

Source: OECD and UNESCO Institute for Statistics (for data on non-OECD countries and up to 1995).

In 2004, there were 2.7 million tertiary students enrolled outside their country of citizenship. This represented an 8% increase on the total foreign student intake in 2000.

The growth in the number of students enrolled abroad since 1975 stems from various factors. In the 1970s, some countries implemented public policies aimed at promoting and developing academic, social and political ties between countries. Such policies were particularly pervasive in Europe as part of the process of developing the European Economic Community. There were also similar rationales in North America at the same time.

Over time, economic factors rather than political or socio-political factors have become the main rationale for foreign studies. Growing internationalisation of labour markets for highly skilled labour has given an added incentive for individuals to gain international experience as part of their studies and to source the most attractive educational programmes on offer, whether domestically or internationally.

Constraints and risks to global economic growth

There are a number of current or expected developments or risks that may impact on the speed and extent of global economic growth in the future. Some of these constraints or risks can be forecast and predicted with some degree of reliability while other risks are unknown or hypothetical.

Environmental pressures

A risk to global economic growth is environmental pressures. There is now wide acceptance that climate change will have a negative effect on not only the environment of many countries but also the world economy. Rising concentrations of greenhouse gases are expected to result in higher global temperatures, changing patterns of rainfall, more extreme weather events and rising sea levels. These physical changes will have a wide social and economic impact on agricultural production, resulting in the need for some population centres to adapt or move.

There are also risks of changes in consumer preferences and retailer behaviour as concerns emerge about the carbon emissions that are generated when products are made or transported to markets. These concerns could result in shifts in the regulatory frameworks of countries. It will be important to ensure that policies are based on real,

rather than misleading information as has been the case in some of the food miles proposals put forward by some groups internationally.

Table 4: World carbon dioxide emissions by region, 1990-2030

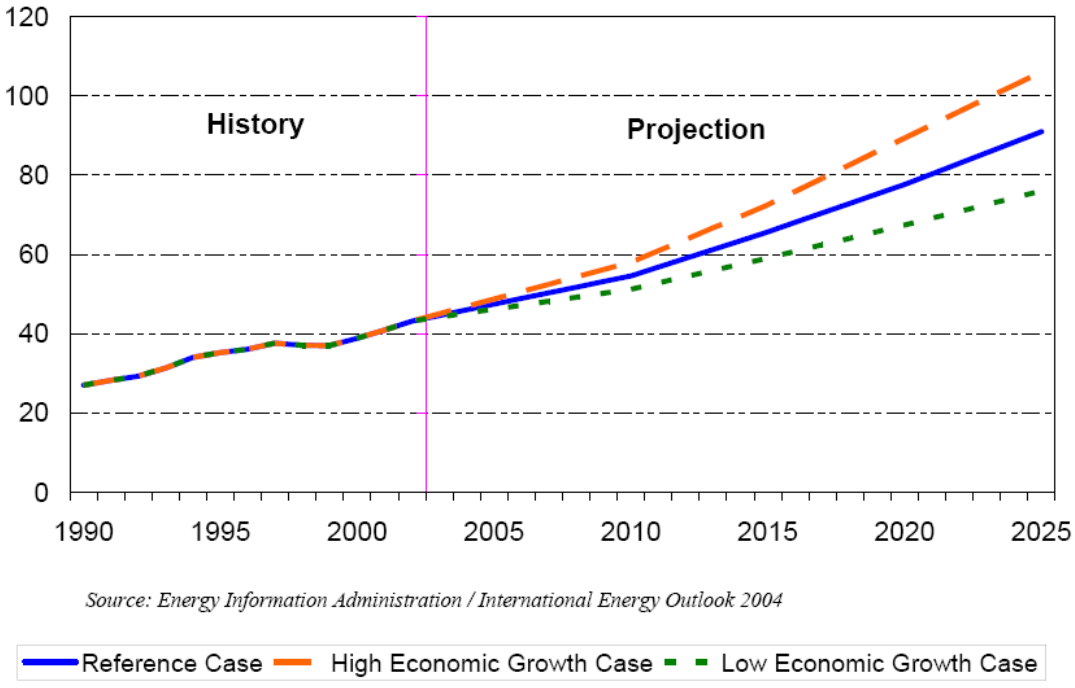
(Billion metric tons of CO2)

Region	History		Projections					Average Annual Percent Change	
	1990	2004	2010	2015	2020	2025	2030	1990-2004	2004-2030
OECD	**11.4**	**13.5**	**14.1**	**14.7**	**15.2**	**15.9**	**16.7**	**1.2%**	**0.8%**
North America	5.8	6.9	7.3	7.8	8.2	8.8	9.4	1.3%	1.2%
Europe	4.1	4.4	4.5	4.6	4.6	4.6	4.7	0.5%	0.3%
Asia	1.5	2.2	2.3	2.4	2.4	2.5	2.6	2.5%	0.6%
Non-OECD	**9.8**	**13.5**	**16.8**	**19.2**	**21.6**	**23.9**	**26.2**	**2.3%**	**2.6%**
Europe and Eurasia	4.2	2.8	3.1	3.3	3.5	3.7	3.9	-2.8%	1.2%
Asia	3.6	7.4	9.7	11.4	13.1	14.8	16.5	5.2%	3.1%
Middle East	0.7	1.3	1.6	1.8	2.0	2.1	2.3	4.4%	2.3%
Africa	0.6	0.9	1.1	1.3	1.4	1.5	1.7	2.5%	2.3%
Central and South America	0.7	1.0	1.2	1.4	1.6	1.7	1.9	3.1%	2.3%
Total World	**21.2**	**26.9**	**30.9**	**33.9**	**36.9**	**39.8**	**42.9**	**1.7%**	**1.8%**

Sources: **1990 and 2004:** Energy Information Administration (EIA), *International Energy Annual 2004* (May-July 2006), web site www.eia.doe.gov/iea. **2010-2030:** EIA, System for the Analysis of Global Energy Markets (2007).

One of the main causes of projected growth in CO2 emissions is rising energy consumption. Among high consumers of energy China is one country where use of energy and CO2 levels are expected to rise significantly. China also has a high level of reliance on coal for energy supplies relative to other countries.

Figure 15: Total energy consumption China, 1990-2025



The International Energy Agency predicts that over the next decade, global energy resources will be sufficient to meet increased global demand. However, additional oil reserves, either from new discoveries or confirming probable reserves, will be required if oil production is not to peak before 2030.

Population growth

World population growth can be regarded as both a risk and an opportunity for New Zealand. As a competitive agricultural producer New Zealand will benefit from increased demand for agricultural goods. However, population growth is also a risk as it contributes to greater demands for raw materials such as oil, leading to even greater environmental pressures from increasing carbon emissions.

Table 5: Population by development group, area 1950, 1975, 2007 and projected 2050[22]

	Population (millions)			*Population in 2050 (millions)*			
Major area	*1950*	*1975*	*2007*	*Low*	*Medium*	*High*	*Constant*
World	2 535	4 076	6 671	7 792	9 191	10 756	11 858
More developed regions	814	1 048	1 223	1 065	1 245	1 451	1 218
Less developed regions	1 722	3 028	5 448	6 727	7 946	9 306	10 639
Least developed countries	200	358	804	1 496	1 742	2 002	2 794
Other less developed countries	1 521	2 670	4 644	5 231	6 204	7 304	7 845
Africa	224	416	965	1 718	1 998	2 302	3 251
Asia	1 411	2 394	4 030	4 444	5 266	6 189	6 525
Europe	548	676	731	566	664	777	626
Latin America and the Caribbean	168	325	572	641	769	914	939
Northern America	172	243	339	382	445	517	460
Oceania	13	21	34	42	49	56	57

Source: United Nations Population Division

Projections of population growth show that the greatest increases in population growth are likely to come from least developed regions (eg Africa) as well as continued growth in Asia. As population-intensive countries such as China, India and other Asian countries continue to grow, in terms of both their economies and their population, there is likely to be an increased demand for high-quality agricultural and horticultural products particularly from the growing middle-income component of their populations. However, changing patterns of agricultural and horticultural production globally may mean that some of the additional demand will be met from increased domestic supply. For instance, the recent emergence of a globally competitive horticultural sector in China has impacted on the New Zealand horticultural industry while in other areas such as dairy, a rising demand for protein in these countries should result in a higher demand for dairy exports.

Global imbalances

At present there are significant imbalances in the global economy. The IMF expects that the United States' current account deficit will be near 7% of GDP in 2007. China's surplus is meanwhile expected to be around 7% of GDP. The IMF considers that these "global imbalances" will leave the world economy vulnerable to a negative shock.

The present imbalance in trade flows between the United States and China is an ongoing source of concern to many commentators in the United States and there are calls for action to be taken to restore the balance or to protect domestic industry. One ongoing

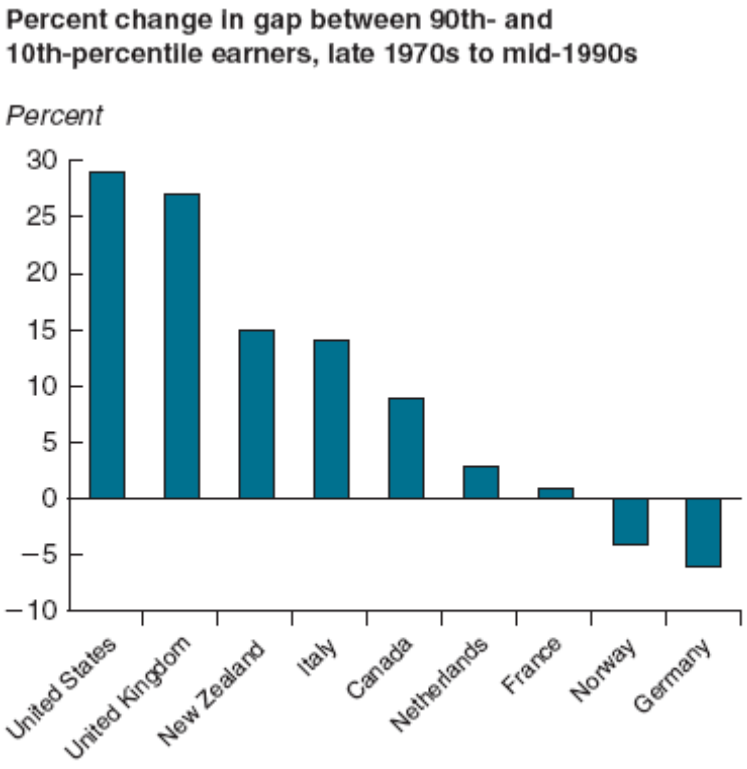
[22] United Nations Population Division (2007), World Population Prospects: 2006 Revision; http://www.un.org/esa/population/publications/wpp2006/wpp2006_highlights.pdf

request from the United States is for China to move away from its fixed exchange rate regime as there is a belief that the Chinese RMB is undervalued.

Social and political opposition to global integration

In many developed economies global economic integration has contributed to a widening gap between high and low-income earners.

Figure 16: Gap between high and low income earners in developed economies[23]



Source: Katz and Autor 1999.

While globalisation generally can be associated with rising average wages, not all workers have benefited equally as illustrated by Figure16 above. A major cause of this differential in wages between high and low-income earners has been the relative demand for skilled labour.[24] As countries become progressively open there is a resulting expansion of trade opportunities in some areas while in other areas that were previously protected, contraction or change will result. While economically desirable from an efficiency perspective, these changes can result in social and political opposition to global integration.

The extent of social and political opposition to global integration that may emerge is unknown. There are indications of rising tensions in some areas, such as debate in the United States about the loss of domestic industries to other countries as a result of shifts in comparative advantage over time. Other current significant unknowns include whether the Doha Development Agenda WTO Round will ever reach a meaningful conclusion, or whether the future trade strategy of major economic economies such as the United States, China or Japan will be to liberalise trade barriers.

[23] Cited in World Bank Global Economic Prospects 2007.
[24] Ibid; Chapter 4.

Political instability

Another unknown in terms of risks to global economic integration and world economic growth is the risk of global conflict and political instability. There are at present a number of conflict areas in the world and instabilities arising from terrorism. In addition to the disruptions that war or instability can bring to a country or trade with a country there is also the possibility of increased prices of raw materials such as oil. Substantial political instability in a country or region can also result in migration flows of refugees.

Beyond these areas there is also the potential for new conflicts or conflicts that are currently non-military in nature to evolve into serious regional conflicts.

Conclusion

In this part of the report, we have outlined predictions for global economic growth from the IMF and the World Bank and have looked at the implications for regional economic growth, as well as growth in individual sectors. We have also considered some the challenges and opportunities that are likely to arise from globalisation as a result of these developments.

We have found that

- Prospects for global economic growth, as forecast by the World Bank and IMF are for a continuation of the positive growth that has occurred over the past decade.
- The strongest growth will continue to be seen in Asia.
- Global economic integration is likely to intensify further as international trade and investment continue to expand.
- There is likely to be more dispersion of global production processes with more specialisation.
- The highest rates of growth in manufacturing exports will be for technologically advanced goods.
- Rates of adoption of new technologies and innovation are likely to accelerate further. Growth in technologically advanced exports will provide more incentive for research and development.
- The adoption of new technologies will require more advanced skills in the workforces of world economies.
- Pressures on resource prices are likely to continue as high rates of growth in countries such as China drive up the prices of raw materials. Population growth will also add to demands for raw materials as well as various agricultural products.
- High rates of economic growth and population growth will also result in added pressures on the environment, including through climate change. Governments will come under greater pressure to respond to these challenges.
- There are a number of risks to the global economy, including global imbalances, the direct and indirect effects of climate change and geopolitical instabilities.

- There is a challenge of trying to ensure that the benefits of globalisation are spread across the population. The process of globalisation will result in some sectors, or those that perform tasks in a production process that can be easily contracted out across borders, facing added competition, either as a result of trade liberalisation or more likely from lower-cost production from abroad. Such changes could result in more opposition to globalisation emerging over time unless economies adapt and respond to opportunities presented by globalisation.

We have, essentially, projected a positive world economic situation in terms of future economic growth. There are however notable risks, many of which are manageable, and others that are unknown. There are a number of emerging patterns associated with this projection, such as increasing returns to high-technology manufacturing and a resulting incentive for more research and development expenditure; and the continuing dispersion of production of firms globally. These trends are likely to have a number of implications for all countries and not just for firms and employees but also for priorities in government expenditure.

In the next part of this report we will look at how New Zealand has responded to the risks and opportunities that globalisation has offered in the past and how well placed New Zealand is to respond to these challenges in the future. We will also look at how individual countries are responding to these challenges and opportunities to determine whether there are any lessons emerging for New Zealand or any areas for future investigation and consideration.

Part 3: The risks and opportunities from globalisation for New Zealand

In the earlier stages of this report, we have outlined that the current speed and extent of globalisation is unprecedented. While there are a number of similarities with past periods of globalisation, the current processes and pace of global economic integration are unparalleled. We have also seen that this process of global economic integration is likely to continue in the foreseeable future.

Within this context of increasing levels of global economic integration, it will be important to look at policies that contribute to enhancing New Zealand's international competitiveness across a number of different dimensions:

- As outlined earlier, the higher rates of growth taking place in the Asia region, relative to other regions, are likely to continue in the foreseeable future. This is likely to have continued impacts on the demand for goods and services in this region and illustrates a need to pursue means of achieving greater economic integration with this region.

- There is evidence that the manufacturing exports with the highest growth for world economies in recent years have been in high technology and high skilled areas. This evidence reinforces the importance of innovation. It is important to innovate not only in the manufacturing sector but also in other sectors. Innovation and the production of more technologically advanced goods also contribute to a need for a more skilled, better-trained and more flexible workforce.

- Both developing and developed countries have recognised the importance of investing in high-technology and high-skilled manufacturing goods and services for export. While developing countries generally have a comparative advantage in the area of labour-intensive industries, particularly low-skilled labour-intensive industries, they don't necessarily have a comparative advantage in the high technology or high skilled industries. Developed economies meanwhile need to continue to consider policies that ensure that they remain competitive in these areas or specialise in new, high value-added goods and services.

- There has been dramatic growth in the levels of offshoring and outsourcing as companies contract out, or relocate some aspects of production or services offshore. These location decisions have taken place to make the most of the comparative advantages of other countries. The development of new or improved information and communication technologies, and/or the decline in the costs of these technologies, has also contributed towards companies locating production tasks or services offshore while maintaining head offices or research and development centres at home. It is also likely that an increasing amount of services not historically requiring face-to-face contact will be provided utilising new information communication technologies.

- It is still important to consider the comparative advantages of different regions or countries of the world. These different comparative advantages will mean that engaging in primary sector production in a number of areas such as dairy is still worthwhile for a country like New Zealand. There are also those manufacturing industries that have leveraged off these comparative advantages to develop niche products that are internationally competitive. For example, in New Zealand the

Gallagher Group has developed electric fencing systems and now security management systems.

- Economic growth and resulting rising incomes have led to a greater demand for commodities and services across a number of industries. These include a rising demand for tourism and education services as well as increases in demand for raw materials and agricultural products.

The developments arising from globalisation that are outlined in the previous two parts of this report and summarised above illustrate the increasing need to view the business environment of a country from a perspective of how it compares with that of other countries.

In this part of the report we will outline some preliminary thoughts on policy options for the Government to respond to the developments outlined above. We will look at how New Zealand compares with other countries in areas that are relevant to the international competitiveness of the New Zealand business environment. This will help us gain an understanding of some areas that could be investigated further to respond to the future opportunities and risks arising from global economic integration. The areas outlined should be seen not as the definitive answer on what measures the Government could adopt in response to globalisation, but rather as preliminary thoughts on this topic as a means of stimulating debate and discussion.

Responding to this changing environment

The Government can assist in creating an internationally competitive environment for business. The business environment, coupled with any other comparative advantages and disadvantages that a country has, is the main factor in a company's location decisions. Creating an environment that is favourable to business indicates that a country is better placed to respond to the challenges and opportunities of globalisation. The question now is, how does a Government do this?

Macroeconomic stability

Governments have a critical role in ensuring macroeconomic stability. In general businesses dislike uncertainty. Large fluctuations in output, employment, inflation and exchange rates can lead to considerable uncertainty for businesses. Stability in a macroeconomic environment means that firms and individuals can plan for the future with a high degree of certainty and that they are more likely to invest in plant and technology or in training and upskilling workers.

Businesses generally want to pay the lowest possible levels of taxation for a given set of agreed public goods and policy deliverables and like all taxpayers want to see tax revenues spent prudently by the government. Across the world, one of the factors that contribute to the location of investments is the level of corporate taxation.

There is also a need to maintain a fiscal position that is sustainable over the long term and able to accommodate expected developments in areas such as demographic changes, as well as unanticipated macroeconomic shocks.

Access to third-country markets

The negotiation of access to third-country markets is another critical role for Governments. When determining where to locate their businesses, investors will often consider what access a particular country will have to third-country markets and whether one country has access advantages over another. There remain significant trade barriers in areas such as agriculture and professional services. Multilateral, regional and bilateral trade negotiations are the responsibility of Governments. In addition to such negotiations there is a role for Government in resolving trade disputes and preserving levels of market access.

The importance of science and innovation

As mentioned earlier in this report, global production processes are becoming more dispersed around the world. There are increased moves to offshore and outsource business production to lower-cost markets. This has resulted in increased specialisation. The challenge in the light of such developments is to ensure that the domestic business environment is competitive relative to other countries. One means of maintaining a competitive edge is to innovate and produce goods and services that are superior to those offered by firms in other countries.

The Government can play a role by providing financial support or incentives for research and development; providing an economic system that rewards and encourages research and development; and ensuring that there are sufficient numbers of well-trained scientists, engineers and other professionals who can carry out research, development and innovation.

Ensuring access to a skilled and well-educated workforce

Associated with moves towards the production of more innovative goods and services is the need to up-skill workers to supply firms with sufficiently well-trained staff for their production processes. While firms can provide on-the-job training, such training involves costs and sometimes, due to size or insufficient expertise, companies may not be well placed to provide advanced training or training in specialist areas.

Regulation, institutions and infrastructure

It is important to have a regulatory environment that supports entrepreneurship and business development. An efficient regulatory system (such as intellectual property rights or a system of resource management), government policies (both fiscal and monetary policies) and market and financial systems should not unnecessarily burden business. They should be allowed the flexibility to allocate resources to their most productive use in order to be competitive internationally. Institutions set and guide the way an economy operates. Having transparency of processes, rules and accountability leads to an efficient economic system.

Infrastructure, such as for transport, energy, water and telecommunications, contributes to economic growth by impacting on production costs and returns to labour contributing to the development of industry and providing access to new technology and ideas. Firms require adequate levels of infrastructure to compete internationally. They require good transportation and communication links not only to other countries but also domestically. Firms also require dependable and cost-effective sources of energy, ports and

transportation linkages, water allocation and land transport. In addition, having good underlying infrastructure supports the population of major cities so that labour can live in cities where businesses operate.

New Zealand's business environment relative to other countries

As outlined in the preceding section a decision about whether or not a business is located in New Zealand is essentially based on the pros and cons of New Zealand relative to other countries. In some circumstances, it may be better for a New Zealand business to relocate to another country in order to gain access to comparative advantages it may offer, or locate closer to specific markets and sent the income flows from a New Zealand-owned business back to New Zealand. In this section, we will look at how the New Zealand business environment compares with those of other countries.

A number of organisations, such as the World Bank (Doing Business Survey), the World Economic Forum (Growth Competitiveness Index) and others, have attempted to measure the business environment of different economies. These organisations use quantitative or qualitative measures. The quantitative measures used, such as the time it takes to establish a business are reasonably accurate (provided the data is recorded correctly and is comparable). However, the qualitative measures are largely based on survey responses, which can suffer from weaknesses in sample sizes, the nature of the questions asked, and who the respondents are (and whether they have a particular bias or not).

The ratings or survey results are based on past performances rather than present or planned changes. Therefore, a poor rating does not mean that a country will automatically perform poorly in the future. Despite such weaknesses these ratings or survey results give some indication of how competitive New Zealand's business environment is relative to those of other countries.

In the attempt to assess a business environment there is also a question about which measures should be used and how much weighting is given to particular components in each measure. For a full outline of the pros and cons of using such surveys and ratings, along with an analysis of results of several comparative surveys see Julia Hall and Anthony Casey International Comparative Surveys of Regulatory Impact[25].

In the table below, the results for New Zealand and a selected group of countries with similar-sized populations to New Zealand, as well as for Australia, are outlined:

[25] http://www.treasury.govt.nz/workingpapers/2006/tpp06-05.pdf

Table 6: Current ratings by international rating agencies of NZ and selected economies

	New Zealand	Denmark	Ireland	Singapore	Australia
Population	4.12m	5.41m	4.13m	4.35m	20.33m
GDP per capita	US$25,374	US$47,750	US$48,354	US$26,833	US$34,695
Real GDP growth	2.3%	3.1%	4.8%	6.4%	2.6%
Unemployment rate	3.7%	4.8%	4.3%	3.2%	5.1%
Education	Upper secondary education (77.7%) Higher education (25.3%)	Upper secondary education (81.8%) Higher education (31.5%)	Upper secondary education (62.5%) Higher education (27.8%)	NA	Upper secondary education (64.1%) Higher education (30.8%)
Rankings of the e- business environment					
Information technology (EIU's e-readiness ranking)	14(16)	1 (1)	16(15)	13(11)	8(10)
Research & Development expenditures (%of GDP)	1.2%	2.6%	1.2%	2.2%	1.7%
Rankings by different organisations of the business environment (previous year in brackets)					
World Competitiveness Yearbook	22(16)	5(7)	11(12)	3(3)	6(9)
Growth Competitiveness Index	23(22)	4(3)	21(21)	5(5)	19(18)
Doing Business Survey	2 (1)	7(8)	12(11)	1(2)	8(6)
Foreign Policy's Globalisation Index	11(8)	7(10)	2(1)	1(2)	13(13)
Index of Economic Freedom	5(9=)	13(8)	7(3)	2(2)	3(9=)

Notes (i) Population and economic data (GDP per capita, real GDP growth, unemployment rate) data is 2005 data from the IMD World Competitiveness Yearbook 2006.

(ii) International surveys information source: Global Business Environment 2006 (Economist Information Unit); E-readiness rankings (EIU 25 April 2006); World Competitiveness Yearbook 2006 (IMD); Growth Competitiveness Index 2005 (World Economic Forum); Foreign Policy's Globalisation Index 2005; Doing Business Survey 2007 (World Bank – issue Sept 2006); Index of Economic Freedom 2007 (Heritage Foundation and Wall Street Journal)

(iii) Education attainment source OECD (www./oecd.org/edu/eag2006). Comparative Singaporean data is not easily comparable as it is not a member of the OECD

(iv) Research and development expenditures as percentage of GDP data is 2004 data for Singapore and Ireland, 2003 data for NZ and Demark, and 2002 for Australia.

In Table 6 above, it is interesting to note the wide range of results for the sample economies. This in part reflects the different methodologies used for different ratings agencies (see Appendix A for a summary of the methodologies used in each rating). Despite the use of different methodologies Singapore generally emerges as the highest-rated economy, followed by Denmark. While New Zealand's performance is not as good compared with the sample countries in some surveys above, New Zealand still has a relatively high rating when compared with the total number of countries that are included in each survey.

Looking beyond the aggregate results presented in the table above, some general findings emerge:

- New Zealand's best rating is in the World Bank Doing Business Survey. This survey covers measures such as the costs of registering businesses and hiring and firing workers. It does not cover infrastructure, economic performance, government or business efficiency, education or technology.

- When infrastructure, economic performance, government performance, education, and technology adoption are considered by the World Competitiveness Yearbook or the Growth Competitiveness Index, New Zealand's rating is lower.

How other countries are responding to the challenges and opportunities of globalisation

Denmark has developed an explicit globalisation strategy that contains 350 initiatives covering areas from education to innovation and taxation and is designed to make Demark the most globally competitive society by 2015. The main focus of the Danish globalisation strategy is on boosting innovation and raising the levels of skills and education in the workforce. The United Kingdom Treasury has also undertaken significant work on this topic and has published a strategy in response to the risks and opportunities that globalisation presents. This strategy also has a substantial emphasis on raising the levels of innovation, skills and talent of the workforce.

Other countries such as Ireland and Singapore, are pursuing economic policies that utilise their geographical locations and other specific advantages that they offer, as a means of developing closer regional integration with neighbouring major economies. Australia has benefited substantially from a rising demand for raw materials, and at the same time is developing greater linkages with regional economies through the negotiation of trade agreements or through capacity-building initiatives designed to strengthen the economic fundamentals in Asian economies.

(More information on the policies being pursued by Denmark, Ireland, the United Kingdom, Australia and Singapore is outlined in Appendix B).

Stocktake of how New Zealand is placed to respond to the challenges and opportunities of globalisation

Business groups, and commentators have made a number of commentaries on the New Zealand business environment. The Small Business Advisory Group, in its March 2006 report has argued that the business environment, particularly for exporters, has become tougher.[26] Poor ratings in some areas of international ratings/surveys (such as the World Bank Doing Business Survey, the IMD World Competitiveness Yearbook and the WEF Growth Competitiveness Index) raise a concern about New Zealand's international competitiveness in some areas.

In a 2006 working paper titled *The New Zealand-Australian income differential* the NZIER pointed out that in 2004 the average income of New Zealanders, in terms of GDP per capita, was about three-quarters of that of Australians.[27] A review of literature by NZIER suggests three reasons for New Zealand's lower level of income:

- New Zealand's low export growth, due to the dominance of the land-based primary sector
- New Zealand's lower labour productivity, largely due to lower capital per worker, and
- New Zealand's small size and greater degree of geographical isolation.

In response to these a range of policies was suggested. Other commentators, such as the New Zealand Institute, have also offered a range of policy solutions to improve New Zealand's economic performance.

In this section, the ideas of these commentators, and other ideas, are put forward as a means of considering how New Zealand may respond to the risks and opportunities of globalisation. These are preliminary views only. They are intended to stimulate debate and in-depth analysis rather than be regarded as firm conclusions.

Stable macroeconomic framework

New Zealand is likely to be seen by businesses as having a generally stable macroeconomic environment relative to other countries. New Zealand has been running fiscal surpluses. Unemployment is amongst the lowest in the OECD and there has been a sustained period of economic growth through the 1990s and into the current decade.Despite a generally stable macroeconomic environment, there are a number of areas in that environment that affect the international competitiveness of New Zealand firms. These include exchange rates, levels of interest rates, levels of savings, and the current account deficit.

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[26] Small Business Advisory Group Report 2006, page I, March 2006.

[27] Branson J. and Layton B. (October 2006). The New Zealand- Australian income differential. NZIER working paper 2006/05, Public Discussion Document, October 2006.

An open and competitive microeconomy

It is important to consider whether other aspects of our regulations and policies promote an open and competitive microeconomy when this environment is looked at from a global competitiveness lens. New Zealand needs a regulatory regime that is attractive to investors; otherwise there is a risk of potential foreign investors relocating their investments or of New Zealand investors not expanding their operations because they see the regulatory environment as unfavourable to business. In looking at whether New Zealand has an open and competitive environment it is necessary to look not only at openness to trade and investment but also at the regulations, institutions and infrastructure that support or impact on this environment.

Regulations

With regards to our regulations and laws, New Zealand has a well-functioning Commerce Act and in general our competition policy frameworks are sound. There are however critiques of some Commerce Commission rulings and the current regulatory regime. The NZIER for instance considers that New Zealand should abandon industry-specific regulations that have been developed since 2000 and instead return to the light-handed regulatory regime of the 1990s.[28]

One complaint that businesses and business groups, such as the Small Business Advisory Group, raise is the cost of compliance with "red tape" and providing information to government agencies. One option that could be explored further is greater information-sharing among departments by digital means, a plan that is being considered by the Danish government.

Sound environmental management and the Resource Management Act

A number of concerns have been raised over time by business leaders about the Resource Management Act 1991. These concerns include the delays caused by, and perceptions of, bureaucratic, costly and time-consuming processes under the Act, and how these do not encourage investment. There has also been commentary that some of these processes are responsible for delays in the construction of critical infrastructure such as in the electricity supply sector.

In response the Government has taken a number of steps to improve the operation of the Resource Management Act and the institutions that operate within it. These include providing more resources to the Environment Court to deal with delays in appeals and allowing a faster decision process on matters of national significance. In the future, it will be important to monitor how the Act is operating to ensure that an appropriate balance is struck between protecting the environment and ensuring that economic development is not unnecessarily constrained.

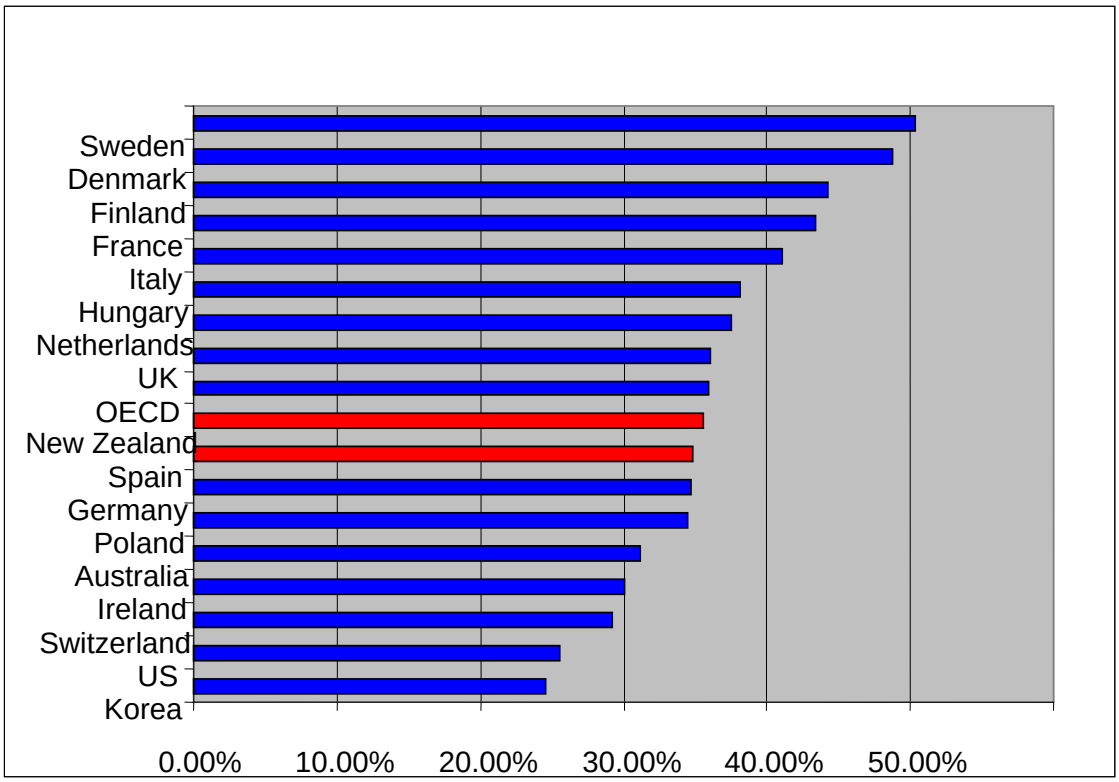
Perceptions of how our environmental legislation operates can impact on where businesses locate their operations. In a world of increasing globalisation, where it is easier for companies to locate their business operations in different geographical locations, it is important to be mindful of the advantages and disadvantages that environmental legislation offers to business relative to other countries. At the same time, there is a need to think of other policy objectives that are being advanced through environmental regulation.

[28] Ibid

Taxation

There is a need to consider how the New Zealand taxation system compares with those of other countries. Levels of taxation are a factor that businesses will consider as part of decisions about where to locate their operations. While New Zealand raises more corporation tax as a proportion of GDP than most other OECD countries[29], the levels of *total* tax revenue as a percentage of GDP are a lot lower as shown below:

Figure 17: Total tax revenue as a percentage of GDP, 2004



Source: OECD Revenue Statistics 1965-2005

While corporate tax receipts as a percentage of GDP are high compared with those in other countries, there are other taxes that are much lower. The level of value added tax (GST in New Zealand) at 12.5% for instance is much lower than almost all other OECD economies.

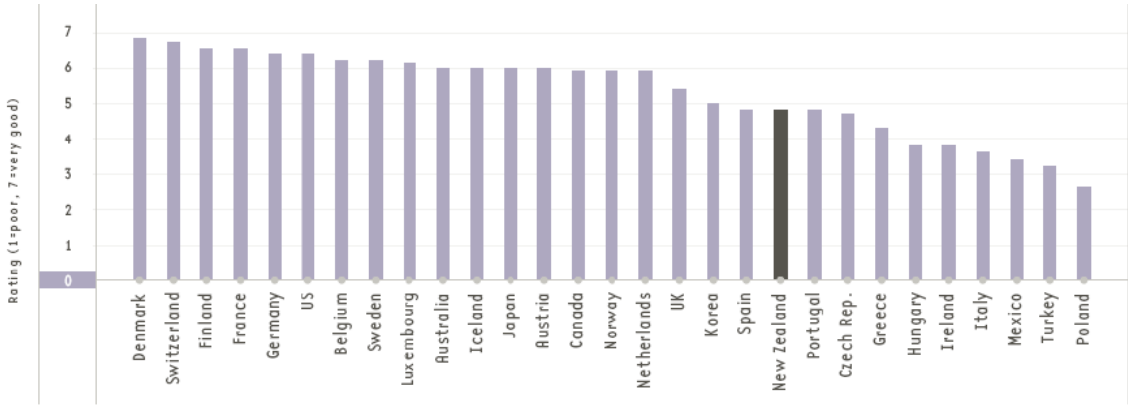
It is necessary to have a tax system that does not unduly discourage the New Zealand business sector. In the 2007 Budget the Government announced a number of changes to the taxation levels including a cut in the company tax rate, the introduction of tax credits for research and development and reforms in the international tax regime. These reforms are designed to improve productivity and competitiveness and attract more foreign direct investment, thereby increasing labour productivity and wage rates.[30]

[29] See OECD Revenue Statistics 1965-2005 data on Corporate Tax Rates as a percentage of GDP, 2004.
[30] Budget speech 2007

Infrastructure

Over time there has been increasing concern in New Zealand about access to electricity, and concerns about other infrastructure such as roading. Providing greater assurance about the reliability of our infrastructure and any policies/actions to address areas of weakness will help provide greater predictability for businesses.

Figure 18: National Infrastructure Quality Ratings



Source: World Economic Forum 2005

According to the World Economic Forum's 2005 Global Competitiveness Report New Zealand ranks 22nd in the world or 19th out of 30 in the OECD in terms of the overall quality of infrastructure. Under this measure we have a high rating in some areas of infrastructure: for ports we are 13th in the world (10th in the OECD), for aviation, 13th in the world (9th in the OECD) and for telecoms infrastructure, 16th in the world (12th in the OECD). New Zealand ranks relatively poorly in other areas: for electricity supply, we are 30th in the world (23rd in the OECD) and for rail infrastructure, we are 31st in the world (23rd in the OECD).

As with the other international comparative surveys it is important to treat such ratings with caution before assuming that New Zealand's infrastructure is poor in comparison with other OECD countries, or represents an underinvestment in infrastructure for example. New Zealand's low population base and mountainous terrain would explain why we are likely not to have a high rating for rail infrastructure. It can also be argued that our rating for electricity supply does not fully reflect current or planned investments in this area. It will be important to continue to monitor how New Zealand compares with other countries in these areas and address these concerns if necessary. Perceptions of New Zealand do matter as they can impact on investment decisions of international investors.

Tourism

Tourism New Zealand is expecting the numbers of international visitor arrivals to New Zealand to grow by 4% per annum to 3.1 million in 2012.[31] According to Tourism New Zealand, tourism expenditure in New Zealand is $17.5 billion, our largest export sector and accounts for 18.7% of exports and 9% of GDP, and employs 1 in every 10 people in the national workforce.[32]

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[31] Tourism New Zealand (2007) Draft New Zealand Tourism Strategy 2015; www.nztourismstrategy.com/files/DRAFT_Tourism%20Strategy%20FINAL.pdf

[32] Tourism Satellite Account, 2005, Statistics NZ data reported in the Tourism NZ (2007) Draft New Zealand Tourism Strategy 2015

The Tourism NZ Draft New Zealand Tourism Strategy 2015 outlines a number of policy actions for the sector including greater investment in marketing of New Zealand as a destination, policy initiatives designed to improve the quality of the visitor experience, and other initiatives designed to support the industry.

There is an ongoing need to debate how much Government should be funding promotional activities in the tourism sector. However there is certainly a need for Government involvement in ensuring sound infrastructure and regulation to support this sector.

International Education

From the market peak in 2002 there has been a 26% decline in the numbers of foreign students in New Zealand to 94,246 enrolments in 2005. This decline has mainly affected the schools, private tertiary education organisations, and English language schools. In 2005 a reduction in total enrolments within the public tertiary education institutions was also recorded.

The decline in numbers of foreign students in New Zealand is the result of a number of factors. There are now more and better quality English language schools in China. There were also a number of high-profile language school failures in New Zealand that harmed our reputation as a provider of high quality education. At the same time, the number of Chinese studying in New Zealand declined between 2005 and 2006 (from 44,000 to 30,000) while the numbers studying in countries that are New Zealand's competitors have risen.

There has been an encouraging growth in interest in tertiary studies from North America and Europe. This however should be seen within a context of a general increase in numbers of students seeking tertiary education abroad across all countries.

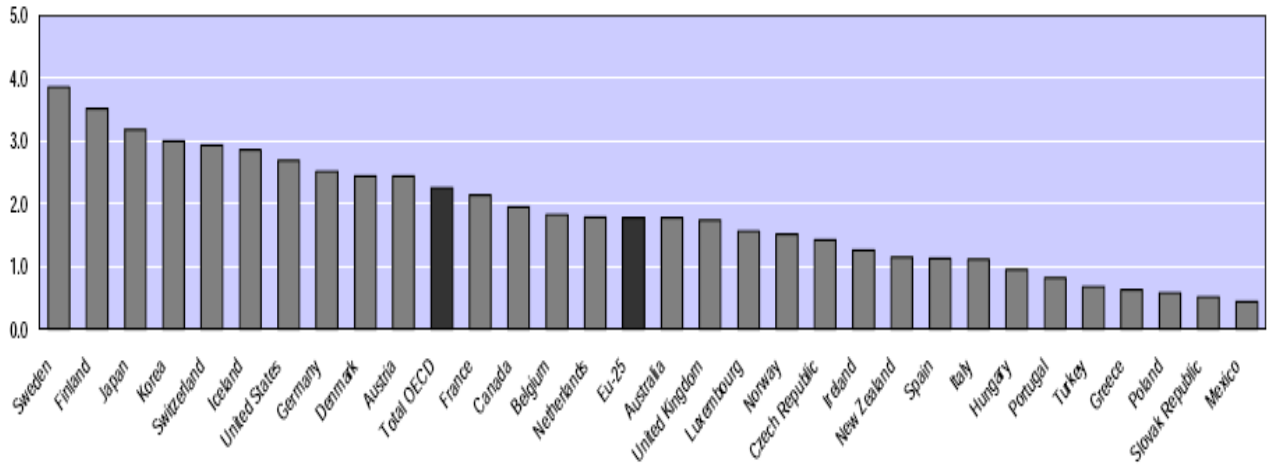
In the Budget 2004 and 2005 the government provided an extra $70 million through to the end of June 2009 to support international education initiatives. To date the results in terms of attracting higher levels of international students have not been successful (as the numbers of international students fell from 115,000 in 2003 to 98,000 in 2005), and the proportion of students at the tertiary level compares unfavourably with other countries, including the United States and Australia. What is unknown is what would have been the result if these interventions had not been made. It will be important to evaluate in the future what results have been achieved from these initiatives and whether the funding could be better applied to alternative areas to achieve the desired results.

International education however is not just about increasing the number of foreign students in New Zealand. Education is also a means of developing a greater awareness of other cultures and languages. Collaborative research and linkages between universities and other educational institutions are also important for creating greater awareness of technological and other developments that are happening internationally.

A solid research, development and innovation framework

As outlined earlier in this report, the global rates of adoption of new technologies and innovation have sped up and are likely to increase further. In Part 2 of this report we saw that a pattern of increasing returns on new technologies and innovation has emerged. These increasing returns may provide more incentive for further research and development, by both firms and by the public sector in New Zealand.

Figure 19: Trends in domestic research and development expenditure 2005



Source: OECD[33]

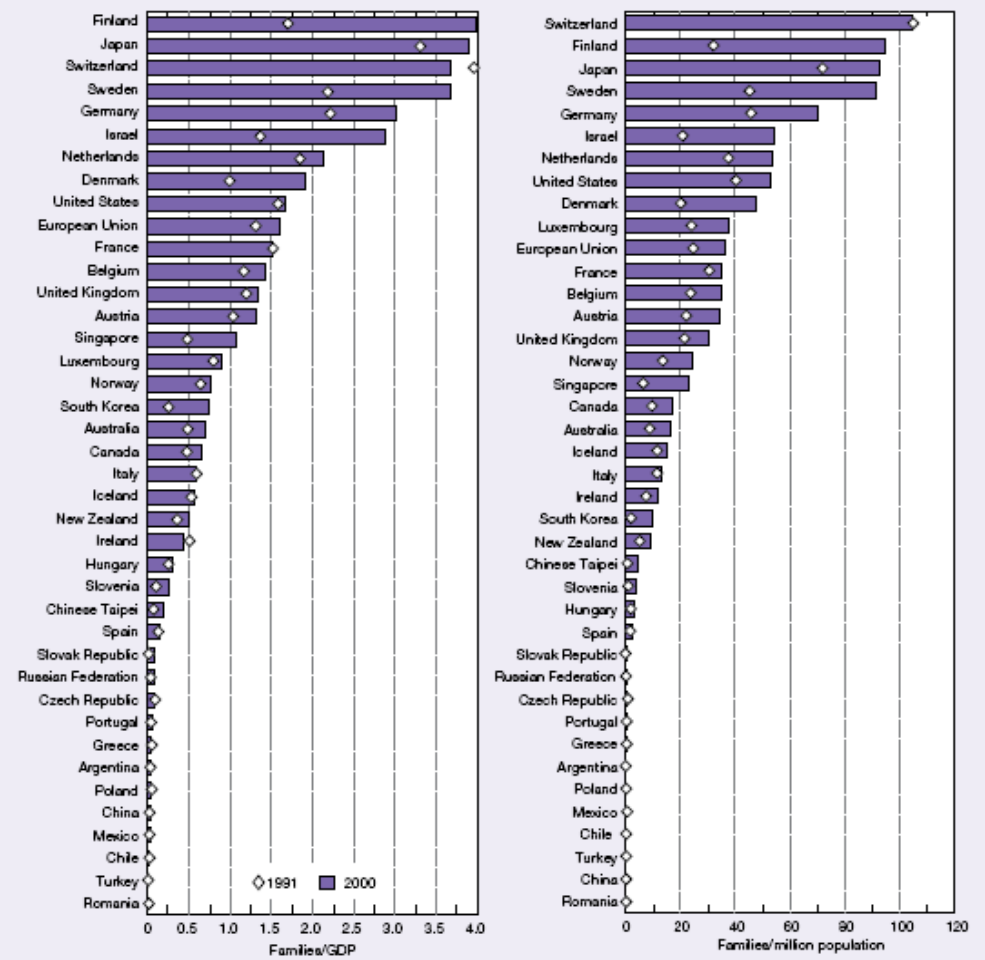
As indicated in the figure above, New Zealand's expenditure on research and development is not high in comparison with other OECD countries. The figure above does not distinguish between research and development that is connected to the development of goods and services and research that is unrelated to any commercial objectives, such as many aspects of environmental or conservation research.

One key measure of science and innovation in a country is the number of patents filed in three important markets: the United States, Europe and Japan. Each invention that is filed in these three markets is referred to as the *triadic patent family*.[34] Rankings across countries adjusted for the size or population of individual countries are shown in Figure 20 below. Under such a measure, countries such as Switzerland, Finland and Sweden rank highly.

[33] For additional indicators see OECD Main Science and Technology Indicators 2006/2 edition December 2006 http://www.oecd.org/dataoecd/49/45/24236156.pdf

[34] For more on this term see National Science Foundation (2006) Science and Engineering Indicators 2006; http://www.nsf.gov/statistics/seind06/c6/c6s5.htm

Figure 20: Triadic patent families, by residence of inventor: 1991 and 2000



GDP = gross domestic product

NOTES: Applications for patents filed with European Patent Office, U.S. Patent and Trademark Office, and Japanese Patent Office. 2000 values are estimates. GDP calculated in 1995 U.S. dollars using purchasing power parity.

SOURCE: Organisation for Economic Co-operation and Development, patent database (September 2004).

The triadic patent families indicator shown above reveals that New Zealand's performance in terms of the numbers of triadic patent families to GDP or to population is relatively poor when compared with other countries.

Earlier in this report we looked at the competitive environment of New Zealand, Australia, Singapore, Ireland and Denmark. In Table 6 it is shown that New Zealand spends 1.2% of GDP on research and development, which, with Ireland (also at 1.2%) was the lowest level of spending on research and development as a proportion of GDP across the five countries (Denmark spent 2.6%, Singapore 2.2% and Australia 1.7%). The New Zealand performance is similar to that of Ireland.

We have seen in Part 2 of this report that the manufacturing exports world wide that are growing the most are the areas with the highest technology intensity. New Zealand needs to increase its adoption and development of new technologies that can be applied to New Zealand goods and services. An important issue for consideration is the level of assistance the government should provide, in assisting businesses to develop and adopt new technologies and innovative ideas. In New Zealand 42.5% of total research and development expenditure is performed by industry. This compares with an average of 68% for OECD countries. Recently in the 2007 Budget the Government announced changes to the taxation regime with the introduction of a research and development tax

credit. This initiative should encourage greater expenditure in private-sector research and development.

Labour supply

Globalisation today means that businesses face more options in terms of obtaining the labour inputs for their businesses. The labour market for productive and skilled workers is increasingly becoming a global market. New Zealand now faces more competition in the global economy to attract well qualified and trained individuals. At the same time there are more opportunities for New Zealanders to work offshore if they have the skills to compete in the global labour market. Companies are also able to relocate their business operations offshore to take advantage of the comparative advantages these locations offer. Comparative advantages include the price, quantity or abilities of the labour supply in different locations.

Movement of industry offshore

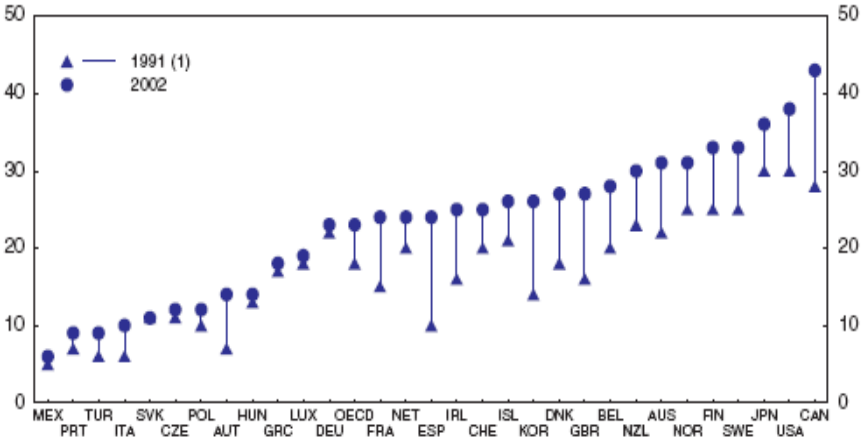
Globalisation has also been associated with faster introduction of new technologies, greater returns on innovation, and offshoring and outsourcing (particularly of low-skilled labour-intensive products and services). The combination of all these factors has led to a situation in New Zealand and other OECD countries where people with higher skills that are in demand globally have their wages rise at a higher rate. Those with low skills in labour-intensive industries that can be relocated offshore are at risk of missing out on the full extent of the opportunities that globalisation will present. This is due to the need to keep wages lower in order to remain internationally competitive especially against competitors located in various developing countries where there is an abundance of low-cost labour.

In recent years, we have seen examples of the outsourcing of jobs to other countries from companies such as Air NZ, Fisher and Paykel andr the ANZ bank. There were a number of factors contributing to the loss of these jobs from New Zealand, one of which would be the relative costs of labour inputs in New Zealand compared with other locations. Although such job losses can be difficult for the individuals involved the government should not intervene. Such moves should lead to cost savings and efficiencies by New Zealand companies and enable them to compete better internationally. Low levels of unemployment mean that New Zealand workers should be able to find alternative employment. There may, however, be a need for additional training to ensure that workers relocate to an area of high return.

In response to the challenges and opportunities of globalisation there is a need to look at improving the attractiveness of New Zealand as a location for business. One area in which this can be done is by considering initiatives to improve the attractiveness of the New Zealand labour supply. While countries abroad can often provide labour, particularly unskilled labour, at a lower price, they do not have a comparative advantage in all areas of labour supply. It is imperative for businesses to consider the skill levels or other aspects of the labour pool in each location.

Figure 21: Trends in educational attainment

(Tertiary education, percentage of 25 to 64 year olds)

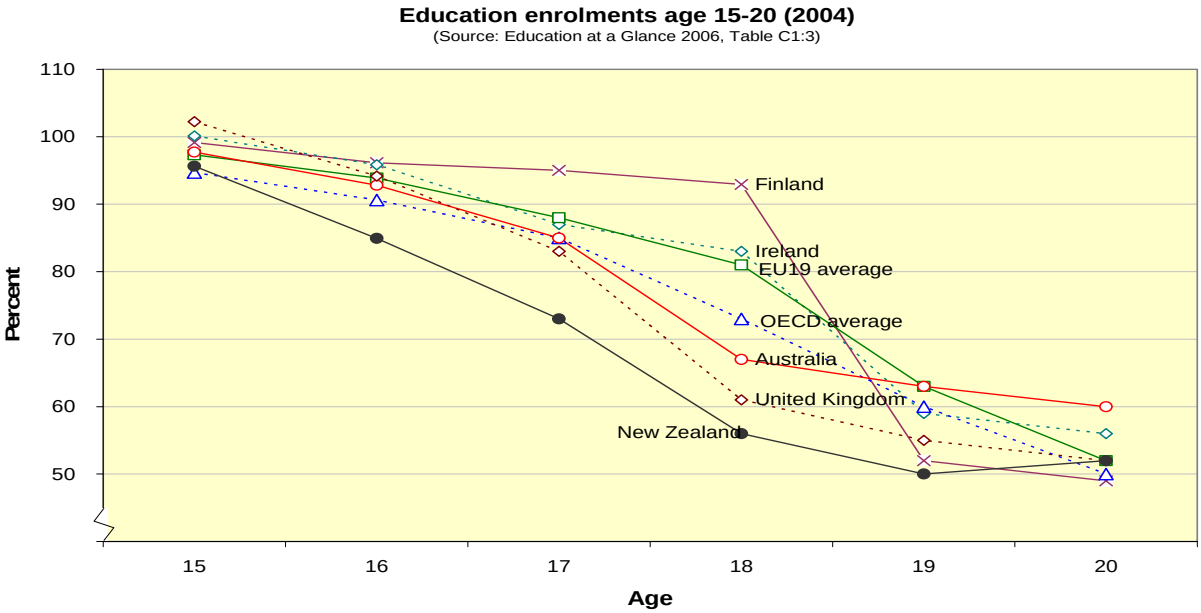


1. 1995 for Czech Republic, Greece, Mexico, Poland and Slovak Republic; 1998 for Hungary, Iceland, Japan and Luxembourg.

Source: OECD, Education at a Glance, 2004.

New Zealand's educational attainment in general is strong, relative to the OECD average. The chart above illustrates educational performance relative to other countries in tertiary education. Other indicators of levels of education, however, show that there is a significant problem with low levels of participation by 16 and 17 year olds in the school system (as shown below):

Figure 22: Comparison of education enrolments by age



In New Zealand, the estimated percentage of students staying at school until age 16 has fallen since 1992 with the biggest decline noted to be among Maori students. One of the key objectives of many governments is to lift the quality of the available pool of workers in the economy by ensuring a solid basic education for all school goers, providing assistance for re-training and recognising overseas qualifications, where appropriate. Addressing the

lower leaving age of New Zealand students in the 16 to 19 year-old group will be important for raising skill levels in New Zealand.

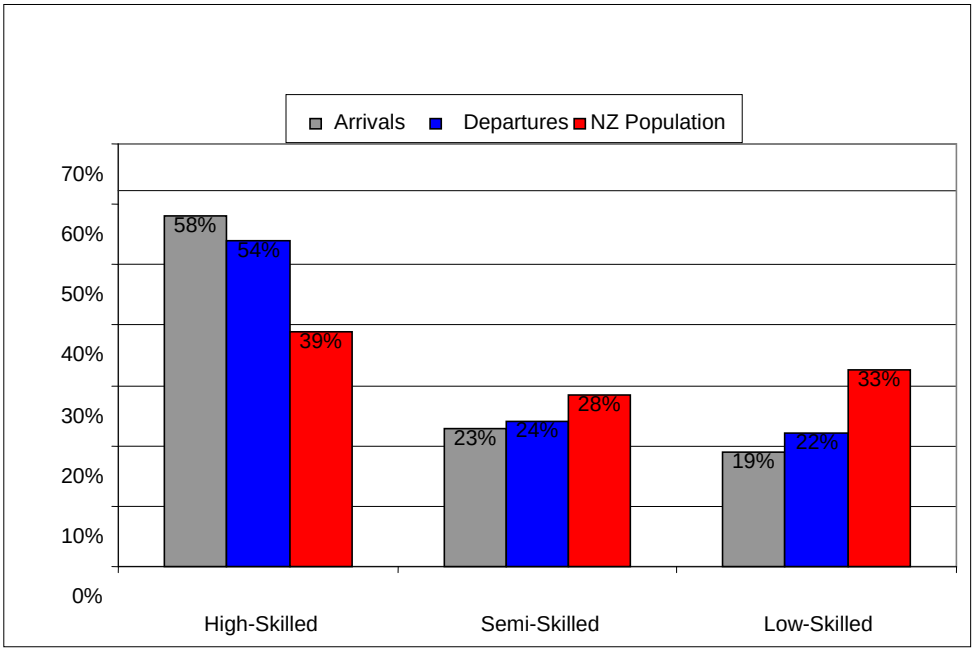
There is also a need to consider the incentives and the level of guidance that exists for individuals to undertake training and education in order for New Zealand to have an adequate stock of well-educated and trained employees for businesses operating in the global economy. For companies the incentive to offer training or assist in the education of employees is to ensure that they have sufficient numbers of trained employees. However, companies recognise that labour is highly mobile and they will potentially be concerned about the loss of employees who they have spent considerable time and expense in training. Individuals will not only consider the costs of undertaking training, but also potential opportunity costs of forgone wages.

Immigration

New Zealand has some advantages in terms of the global labour market as it is often seen as an attractive place for foreign workers to live due to its lifestyle. At the same time however there will be a certain proportion of the New Zealand population who will seek temporary and permanent employment opportunities overseas. It is important to periodically revise immigration policies so that they allow skilled and unskilled workers in areas where there are labour shortages to enter New Zealand. At the same time they should provide an environment that is welcoming and attractive for trained New Zealanders who are living abroad to relocate to New Zealand.

Although there is a net outflow of skilled workers from New Zealand to Australia, in general, New Zealand gains more skilled workers than it loses.[35] Overall, the effect of migration is a net gain of skilled workers to the New Zealand labour force.

Figure 23: Skill make-up of migrant groups, 2004-2006



Source: NZ Immigration service data

[35] See Treasury Working Paper 01/22 "Brain Drain or Brain Exchange?" by Hayden Glass and Wai Kin Choi and Michael Simpson Brain Drain or Brain Exchange? An Update, internal Treasury report January 2007.

A number of New Zealand companies also benefit from the linkages that immigrants bring to New Zealand from their home countries. They can bring language and cultural skills that allow access to another economy. New Zealand immigration policy settings will need to continue to be internationally competitive in attracting these highly skilled and innovative immigrants to New Zealand.

International recognition of New Zealand system of qualifications

In an era of increasing globalisation and a more globally integrated labour market, it will be important in the future for the New Zealand system of qualifications to be internationally recognised, not just for school-based qualifications but also for professional qualifications.

In recent years, New Zealand has adopted its own unique school-based qualifications system, NCEA. However, 40 schools in New Zealand such as Auckland Grammar School, King's College, Macleans College, Senior College and Westlake Boys' High School have to some degree adopted the University of Cambridge International Exams (CIE). Auckland Grammar adopted CIE in 2001 and argues it has been a great success.[36] The reasons given for adopting CIE are that its students find themselves in an international workplace today and work alongside or in competition with people from other countries. This raises the point that qualifications need to have international standing for the academic achievements of a student to be easily comparable and recognised.

In regard to the qualifications in individual professions, there is in some professions a low level of recognition of the qualifications of members of equivalent professional bodies abroad. For instance, chartered accountants of certain accountancy bodies in some countries may gain membership of the New Zealand Institute of Chartered Accountants due to reciprocity agreements the Institute has negotiated with those bodies. However, it is interesting to note that these agreements are with similar institutes in Scotland, Ireland, South Africa, Canada, England, Wales, and Hong Kong.[37] This is not a very extensive list of countries. Having said that, there is a need to ensure that other countries' systems are of a high standard and appropriate for New Zealand. In some professions, such as engineering under the Institute of Professional Engineers, there is a much wider recognition of overseas qualifications from APEC economies.[38]

The services sector makes up a large proportion (70.85% GDP) of the New Zealand economy.[39] New Zealand professionals will be better able to market their services offshore if there is greater recognition of New Zealand professional qualifications in offshore markets. Greater recognition of professional qualifications from other countries would also make New Zealand a more attractive destination for professionals from other countries.

New Zealand could be more active internationally in trying to get its qualifications recognised outside Australia or the United Kingdom. Greater international recognition of New Zealand educational and professional qualifications would not only be beneficial for New Zealand students as they enter the global workforce, but could also lead to greater numbers of foreign students coming to New Zealand to study. Furthermore New Zealand professionals could gain greater access to the markets of other countries and could

[36] John Morris, Headmaster of Auckland Grammar in Unlimited, October 2006.
[37] See ICANZ website: http://www.nzica.com/AM/Template.cfm?Section=Recognition_of_Overseas_Study
[38] See IPENZ website: http://www.ipenz.org.nz/ipenz/join/Credit_For_Registrants.cfm
[39] IM World Competitiveness Report (online)

benefit from increased numbers of highly skilled professionals migrating to New Zealand. Alternatively professional groups in New Zealand could decide to adopt international recognised professional qualifications rather than have unique New Zealand professional qualifications.

With increasing globalisation improvements in communications technology and improved standards of professional services being provided in countries such as India, there is a real potential to obtain professional services from these countries without having to have people migrate to New Zealand. There are increasing instances where ICT technologies are being used to address skill shortages internationally. At present a number of United States hospitals send X-rays and other medical information to India and other countries for analysis. New Zealand could consider options to address similar labour shortages in various professions here.

Improvements in communication technologies also mean it will become increasingly possible for people to locate themselves in New Zealand and provide a wide range of professional services to clients located elsewhere. Such technologies can successfully be used to overcome or minimise problems associated with working in a geographically isolated country. Lower costs of living and the lifestyle that New Zealand offers can mean that New Zealand will become a more sought after location for such professional service providers. This however would make it imperative that people who are trained in New Zealand have qualifications that are recognised internationally. Without such recognition, the ability to supply these services across borders can be constrained.

Other aspects of education

At present, New Zealand has a special needs education service that provides education assistance to students with learning disorders, from behavioural problems through to reading or speech disorders. This service is able to address only a proportion of the need with demand for these services substantially in excess of supply. While most students who do receive the services will be able to progress their education and eventually take a meaningful and productive role in the workforce, some students are not receiving assistance, or sufficient assistance, which means their education abilities will be seriously compromised in the future.

Students make decisions on which courses to take and what professions to enter based on a number of factors. While professional guidance is provided in some schools in others little or no advice or information is available. New Zealand could look at providing additional educational or career counselling to students at schools.

There is also an issue of ensuring that tertiary institutes and schools are teaching the best courses that are required by New Zealand in response to the challenges of globalisation. Tertiary institutions also need to respond to the changing needs of students. It will be important for the universities, other tertiary institutes and the government to remain firm in their desire to respond to these changing study needs of students and the requirement of New Zealand as a whole to have a workforce with particular skills and training.

Trade liberalisation and the promotion of trade opportunities

The government has a critical role in negotiating market access to other countries. Over time, tariffs have fallen and are at a low level, particularly for non-agricultural trade (see Table 7 below).

Table 7: Tariffs in selected developed and developing countries, circa 2002

	US	EU	Japan	Canada	China	Indonesia	Chile	South Africa
Duty free (% of tariff lines)	38	28	41	30	8	2	0	10
Simple average bound rate	5	6	8	8	10	38	25	21
Agricultural, bound	8	16	27	23	15	47	26	47
Industrial, bound	4	4	4	6	9	36	25	18
Textile and clothing	9	8	7	12	12	29	25	27
Simple average applied rate	5	6	7	7	12	7	6	11
Agricultural, applied	10	16	19	21	18	8	6	12
Industrial, applied	4	4	4	4	11	7	6	11
Textile and clothing	10	8	7	10	18	11	6	24

Notes: Bound rates are "final bound rates" from the Uruguay Round, Applied from 2002.

Source: Baldwin 2006 using data from WTO Annual Report 2003

While actual applied tariffs are a lot lower than World Trade Organisation commitments as illustrated by the levels of tariff bindings, tariff levels for agricultural goods in particular, but also for textiles and clothing, remain significant. These current levels of bound and applied tariffs illustrate that free trade agreements or the World Trade Organisation multilateral negotiations will remain important for New Zealand in order to achieve liberalisation of tariffs, particularly agricultural tariffs, in our foreign markets.

Another area where Government assists businesses is in the promotion of their goods and services abroad. This work in New Zealand is primarily performed by New Zealand Trade and Enterprise (NZTE). NZTE also provides economic development assistance to industries and individual businesses. Due to New Zealand's remoteness from many economies and the relative size of many of our businesses (ie we have more small and medium enterprises which need assistance in entering foreign markets) there is a need for the government to provide such assistance to businesses. Having such an organisation allows New Zealand companies to obtain assistance and advice on opportunities in other countries from a New Zealand perspective. How much should be spent on such assistance and what types of assistance should be provided by NZTE are areas of ongoing debate. There are certainly indications that New Zealand businesses are appreciative of the services that are provided by NZTE.

Harmonisation of standards and regulatory regimes will remain important

In recent years the Trans-Tasman Mutual Recognition Agreement (TTMRA) has been a valuable mechanism towards achieving economic integration with Australia.[40] The TTMRA provides for the mutual recognition of professional qualifications as well as product standards. Those in one profession in New Zealand can now operate in the same profession in Australia and vice versa. In general, products that are sold in New Zealand can also be sold in Australia and vice versa.[41]

[40] For more on the TTMRA see http://www.med.govt.nz/templates/Page____25079.aspx

[41] There are some exceptions, such as to ensure the biosecurity of a country is protected.

Summary and conclusions

In this section of the report we have outlined some of the possible policies that be considered further in response to the challenges and opportunities of globalisation.

Poor ratings in areas of international surveys, along with concerns expressed by commentators illustrate that New Zealand needs to continue to look at innovative ways of maintaining and increasing its attractiveness as an investment location; and equipping New Zealand workers with the necessary skills and flexibility for survival in a global economy. In this part of the report we have shown a need for initiatives across a number of areas:

- Reviewing New Zealand regulation and competition policy frameworks to ensure that they are efficient and achieve the desired public policy goals with minimum negative impact on the international competitiveness of the New Zealand business environment
- Ensuring that New Zealand has a skilled and flexible workforce, including consideration of how education policies are contributing towards this objective.
- Raising the levels of innovation in New Zealand and increasing research and development expenditure.
- Continuing to improve infrastructure
- Greater pursuit of the recognition of New Zealand and overseas qualifications
- Greater emphasis of standards harmonisation in APEC and with other countries.
- Trade liberalisation, either multilaterally through the World Trade Organisation, or in bilateral or regional free trade agreement negotiations with our key export market economies.
- Pursuing trade promotional activities by NZTE.

A number of these policies are already being pursued under the Government's Economic Transformation Agenda. This report has not outlined all possible policies that can be pursued, nor has it fully critiqued all policy settings that impact on New Zealand's international competitiveness in response to the risks and opportunities of globalisation. It does, however, provide a broad outline of preliminary thoughts on some policies that can be pursued.

New Zealand businesses and policy makers need to be prepared to transform business activities to make the most of new technologies. Businesses need to be able to change products and production techniques. Workers need to have the skills to be able to make the most of new opportunities emerging as a result of globalisation. Investing in new technologies to improve production processes and raising education and skill levels are necessary responses to globalisation.

In responding to the risks and opportunities from globalisation it is also necessary to continue to consider policies that promote a globally competitive environment for New Zealand businesses. Further consideration of how domestic policy settings look when viewed through an international competitiveness lens is imperative. In order to recommend amendments to current policies, further work would need to be carried out, including: further analysis on the responses of the Governments of other countries to

globalisation; consultation with New Zealand businesses in order to understand better any concerns they have and the competitive environment they face globally, and further analysis in the areas of education, infrastructure and regulation to ensure that Government interventions and regulatory settings contribute to, and do not inhibit, New Zealand's international competitiveness.

Appendices

Appendix A

Criteria used in different surveys

E-readiness rankings (EIU)

The rankings are based on a model developed by EIU and the IBM Institute for Business Value. The EIU website does not contain details of the model other than to say that the measures are based on "a number of factors that indicate how amenable a market is to internet based opportunities". In a write-up of the rankings by the EIU there are references to the availability and quality of broadband internet, adoption of open-source software, broadband wireless technologies, and voice-over IP services.

Doing Business (World Bank)

The World Bank "Doing Business" database provides "objective" measures of business regulations and their enforcement, aimed at quantifying the regulatory costs of businesses in 155 countries. That is, the questions asked of respondents relate to observable phenomena, rather than asking for the opinions of respondents (as in the IMD and WEF Executive Opinion Surveys). The Word Bank Doing Business survey consists of several indicators based on the following measures in each indicator:

- ***Starting a business***: Procedures, time, cost and minimum capital to open a new business
- ***Dealing with licences***: Procedures, time and cost of business inspections and licensing (construction industry)
- ***Hiring and firing workers***: Difficulty of hiring index, rigidity of hours index, difficulty of firing index, hiring cost and firing cost
- ***Registering property***: Procedures, time and cost to register commercial real estate
- ***Getting credit***: Strength of legal rights index, depth of credit information index
- ***Protecting investors***: Indices on the extent of disclosure, extent of director liability and ease of shareholder suits
- ***Paying taxes***: Number of taxes paid, hours per year spent preparing tax returns and total tax payable as share of gross profit
- ***Trading across borders***: Number of documents, number of signatures and time necessary to export and import
- ***Enforcing contracts***: Procedures, time and cost to enforce a debt contract
- ***Closing a business***: Time and cost to close down a business and recovery rate.

World Competitiveness Yearbook (IMD)

The World Competitiveness Yearbook, published yearly since 1989 by the Institute for Management Development (IMD) focuses on the economic competitiveness of nations but, similar to the WEF survey (outlined below), it also includes many questions dealing with regulation.

The IMD survey samples 60 economies, of which nine are regions and the rest are countries. The World Competitiveness Index is derived from a combination of statistical data (across 126 criteria) and survey data (113 questions). The index consists of the following indicators:

- ***Economic Performance*** (77 criteria): Macroeconomic evaluation of the domestic economy: Domestic economy, International Trade, International Investment, Employment and Prices.

- ***Government Efficiency*** (72 criteria): Extent to which government policies are conducive to competitiveness: Public Finance, Fiscal Policy, Institutional Framework, Business Legislation and Societal Framework.

- ***Business Efficiency*** (68 criteria): Extent to which enterprises are performing in an innovative, profitable and responsible manner: Productivity and Efficiency, Labour Market, Finance, Management Practices and Attitudes and Values.

- ***Infrastructure*** (95 criteria) Extent to which basic, technological, scientific and human resources meet the needs of business: Basic infrastructure, Technology Infrastructure, Scientific Infrastructure, Health and Environment and Education.

Global Competitiveness Index (World Economic Forum)

The Global Competitiveness Report produced by the World Economic Forum, henceforth referred to as the WEF survey, samples 117 countries every year, beginning in 1979. While the overall indicators presented in this survey are aimed at measuring the broader concept of competitiveness[42] rather than regulation specifically, various sub-indices which make up these overall indicators are of relevance when looking at the impact of regulation on competition. The Global Competitiveness Index covers nine areas:

- ***Institution:*** Property rights; Ethics and Corruption; Undue influence (judicial independence, impartial government servants); Government inefficiencies; Security (costs of terrorism, reliability of police, business costs of crime and violence, organised crime); Ethical behaviour of firms; Accountability (efficacy of corporate boards, protection of minority shareholders rights, audit and accounting standards).

- ***Infrastructure:*** Overall infrastructure quality; Railroad infrastructure development; Quality of port infrastructure; Quality of air transport infrastructure; Quality of electricity supply; Telephone lines (hard data).

- ***Macroeconomy:*** Government surplus/deficit; National savings rate; Inflation; Interest rate spread; Government debt; Real effective exchange rate

[42] Competitiveness is defined by the authors as "that collection of factors, policies and institutions which determine the level of productivity of a country".

- ***Health and primary education:*** Medium-term business impact of: malaria, TB, HIV/AIDS; Infant mortality; Life expectancy; TB prevalence; Malaria prevalence; Primary school enrolment.

- ***Higher education and training:*** Secondary and Tertiary enrolment ratios; Quality of the educational system; Quality of math and science education; Quality of management of schools; Availability of specialised research and training services; Extent of staff training.

- ***Market efficiency:*** Agricultural policy costs; Efficiency of legal framework; Extent and effect of taxation; Number of procedures to start a business; Intensity of local competition; Effectiveness of antitrust policy; Imports; Prevalence of trade barriers; Foreign ownership restrictions; GDP-exports+imports; Exports; Hiring and firing practices; Flexibility of wage determination; Cooperation in labour-employer relations; Reliance on professional management; Pay and productivity; Brain drain; Private sector employment of women; Financial market sophistication; Ease of access to loans; Venture capital availability; Soundness of banks; Local equity market access.

- ***Technological readiness:*** Firm level technology absorption; Laws relating to ICT; FDI and technology transfer; Cellular phones (hard data); Internet users (hard data); Personal computers (hard data)

- ***Business sophistication:*** Local supplier quantity and quality; Production process sophistication; Extent of marketing; Control of international distribution; Willingness to delegate authority; Nature of competitive advantage; Value-chain presence.

- ***Innovation:*** Quality of scientific research institutions; Company spending on research and development; University/industry research collaboration; Government procurement of advanced technology products; Availability of scientists and engineers; Utility patents; Intellectual property protection; Capacity for innovation.

Globalisation Index (AT Kearney/Foreign Policy Magazine)

The AT Kearney/Foreign Policy Magazine Globalisation Index ranks 62 countries for 14 variables grouped in four baskets:

- ***Economic Integration***: Trade; portfolio investment; foreign direct investment; and investment income.

- ***Personal Contact:*** Telephones; travel; remittances and personal transfers.

- ***Technological connectivity:*** Internet users; internet hosts; secure internet servers.

- ***Political ranking***: International organisations; UN peacekeeping; treaties; Government transfers.

Index of Economic Freedom (Heritage Foundation and the Wall Street Journal)

The Index of Economic Freedom, published by The Heritage Foundation and the Wall Street Journal, defines economic freedom as “the absence of government coercion or constraint on the production, distribution or consumption of goods and services beyond the extent necessary for citizens to protect and maintain liberty”. The methodology for this index was changed in 2007 and now covers measures over ”10 economic freedoms”.

Overall economic freedom, defined by multiple rights and liberties, can be quantified as an index of less abstract components. The index uses 10 specific freedoms, some as composites of even further detailed and quantifiable components. Each of these factors and their component variables are:

- Business freedom is the ability to create, operate, and close an enterprise quickly and easily. Burdensome, redundant regulatory rules are the most harmful barriers to business freedom.

- Trade freedom is a composite measure of the absence of tariff and non-tariff barriers that affect imports and exports of goods and services.

- Monetary freedom combines a measure of price stability with an assessment of price controls. Both inflation and price controls distort market activity. Price stability without microeconomic intervention is the ideal state for the free market.

- Freedom from government is defined to include all government expenditures—including consumption and transfers—and state-owned enterprises. Ideally, the state will provide only true public goods, with an absolute minimum of expenditure.

- Fiscal freedom is a measure of the burden of government from the revenue side. It includes both the tax burden in terms of the top tax rate on income (individual and corporate separately) and the overall amount of tax revenue as portion of GDP.

- Property rights is an assessment of the ability of individuals to accumulate private property, secured by clear laws that are fully enforced by the state.

- Investment freedom is an assessment of the free flow of capital, especially foreign capital.

- Financial freedom is a measure of banking security as well as independence from government control. State ownership of banks and other financial institutions such as insurer and capital markets is an inefficient burden, and political favouritism has no place in a free capital market.

- Freedom from corruption is based on quantitative data that assess the perception of corruption in the business environment, including levels of governmental legal, judicial, and administrative corruption.

- Labour freedom is a composite measure of the ability of workers and businesses to interact without restriction by the state.

In the *Index of Economic Freedom*, all 10 factors are equally weighted in order not to bias the overall score towards any one factor or policy direction.

Appendix B

Comparative analysis of polices that other countries have pursued in response to globalisation

In this section of the report comparisons will be made between the policies that Ireland, Denmark, Singapore, the United Kingdom and Australia have pursued in response to current economic opportunities from globalisation.

Ireland

Until the 1990s, Ireland's real GDP per capita ranked near the bottom of the OECD countries. There was widespread emigration in search of opportunities abroad, both to the United Kingdom and the European Union (EU), as well as further abroad. After a decade of fiscal mismanagement, Ireland was suffering from 18% unemployment, slow GDP growth, high inflation, heavy taxation and massive budget deficits, and a public debt that was greater than GDP. Ireland's government expenditures peaked at 62% of GDP in 1983.

Within a few years, under a new government and a fiscal consolidation, Ireland had become the Celtic Tiger: a developed country with a GDP growth rate record to match East Asia's Tigers, as well as low unemployment and inflation, and a low tax burden. Real GDP growth peaked at 10.8% in 2000.

One of the policies that contributed significantly to economic growth was the introduction of free post-primary and low-cost post-secondary education. These polices resulted in a dramatic increase in education participation rates. Education policy is widely credited with making a significant contribution to Ireland's economic growth.

A new Irish Coalition Government elected in 1987 adopted a policy of fiscal consolidation. The political price of the aggressive cost cutting was tempered by a major improvement in the international economy: a worldwide fall in interest rates and a tightening of labour market conditions in the United Kingdom, allowing emigration to lower unemployment and its fiscal costs. In 1989, structural fund transfers from the EU doubled. EU transfers have been a relatively minor contributing factor to Ireland's economic growth, at least in direct terms. It is estimated that Structural Fund payments (representing about half of EU transfers), designed to help rebuild Ireland's infrastructure, contributed about 0.5% annually to Ireland's GDP growth in the 1990s.

At the same time as these favorable domestic and international macroeconomic developments were occurring, Ireland had a number of features that made it attractive as an export platform. Economic integration with Europe, primarily through EU membership was the key. The country, having English as its first language, is likely to have been particularly important destination for United States investors. Ireland had the lowest rate of corporation tax of any EU member state. Combined with that was a move towards fiscal responsibility, a social partnership with the unions that exchanged wage restraint for tax relief, and a young and highly educated workforce. All these factors created a highly attractive business environment and a strong export platform.

As international firms were keen on gaining access to the emerging European market in the early 1990s, Ireland began to attract large amounts of export-orientated foreign direct investment. Anticipation of the Single Market in the EU, a favourable corporate income tax

regime and the availability of a high-skilled low-wage workforce led to a doubling (in real terms) in the amount of investment undertaken by United States firms in the EU between the early and the late 1980s. Ireland's share of these investments quadrupled over this period.

Going forward, Ireland faces growing concerns about competition for foreign investment from the recent EU accession states. Some of these countries also have low company taxation levels and this may impact on location-sensitive foreign direct investment. Competitiveness has eroded reflecting the combination of high wage growth in Ireland than in its trading partners, declining productivity growth, and the appreciation of the euro against the US dollar. Ireland is also considered vulnerable to external shocks.[43]

Denmark

Denmark's response to globalisation has been to develop a globalisation strategy with initiatives designed to give it the most attractive business environment in the world.

In April 2005, the Danish Government established the Danish Globalisation Council, which has 26 members: 21 high-level representatives of Danish society (from unions, industrial organisations, companies, and the education and research community) and five senior ministers, including the Prime Minister. The role of the Council was to formulate a Globalisation Strategy to prepare Denmark for further globalisation.

After a series of meetings, the Council released a strategy that contains 350 specific initiatives, which outline a number of extensive reforms of education and research programmes and the underlying policy frameworks that affect growth and innovation, including entrepreneurship and innovation policy.[44]

The government has published a number of high-level objectives which are outlined in the strategy document (these include ensuring Denmark has a high level of international competitiveness; strong cohesion; high levels of education; improving research and development, entrepreneurship and innovation). The objective overall seems to be summed up in a statement that Denmark aims to be the world's most competitive society by 2015.

A number of initiatives are being undertaken to advance the government's objectives in each of the focus areas above. The initiatives are summarised in the document Progress, Innovation and Cohesion: Strategy for Denmark in the Global Economy – Summary, May 2006[45]:

Education

- Introduction of national tests in different subjects (reading, maths, science subjects) to evaluate individual students learning development.

- Language screening of all children

[43] IMF survey August 21, 2006.

[44] A summary of the strategy in English is obtained at www.globalisation.dk/multimedia/Pixi_UK_web_endelig1.pdf. Or a brief introduction to the strategy is outlined at http://www.globalisation.dk/multimedia/Globalisering.pdf.

[45] The Danish Government does not have a list of key initiatives. However I have summarised what I see as the key initiatives into a shortened list from the 350 initiatives that were developed.

- Compulsory education being extended from 9 to 10 years. Children are required to start school by six years of age.
- Local authorities gaining power to stop payment of family benefits to parents whose children do not attend school regularly
- During school education all children being required to participate in at least one international project
- A target of 95% or more of young people completing general or vocational upper secondary school training.
- New course packages and education programmes that should increase enrolments in engineering, science, ICT and health
- All educational institutions being obliged to establish “personal development interviews” for students who are in danger of dropping out of school.

Higher education

- Introduction of a new scholarship to encourage Danes to study in foreign higher educational institutions
- More higher education programmes being taught in English
- More scholarships for talented foreign students studying in Denmark
- Universities with the highest quality of research, teaching and knowledge dissemination being allocated the most funding relative to their size
- The number of PhD scholarships and industrial PhD programmes to be doubled especially in the natural science, engineering science, ICT and health science

Science

- Greater emphasis on commercialisation of research. How much commercialisation of research is undertaken should have a bearing on how much universities are funded
- Publicly funded research should reach 1% of GDP in 2010
- Fifty percent of research funds should be provided only when the research is completed
- A greater number of long term research grants

Mutual recognition of standards

- Greater harmonisation with EU standards for goods and services

Immigration

- Work permits for highly skilled foreigners who do not have firm job offers but are likely to find employment
- Faster issuance of residence and work permits to the highly paid

Taxes

- Lower personal income taxes, if fiscal conditions allow

- Tax breaks. The Government will lower taxes in three areas. (i) High growth start-up companies that have a positive taxable income (ii) A new savings scheme for entrepreneurs that allows full top rate tax-relief on deposits (iii) Entrepreneurs are to have better opportunities to use shares to remunerate key employees

Venture Capital

- New financial strong venture capital fund to be created

Regulation

- Reducing the government "red tape" by use of digital solutions that ensure that once information is provided to one government department, it is provided to others that will request the same information.

It is intended that the government will monitor the implementation of the globalisation strategy and report on whether developments are going in the right direction and whether Denmark is reaching its objectives in relation to education and training, research, entrepreneurship and training.

One key aspect to note in studying the Danish government's approach to globalisation is that it is focused not so much on trying to promote their goods and services abroad, or improving market access, but rather on improving the competitiveness of its society. The objective overall seems to be to try to be the most competitive society by 2015. Education, science, innovation and entrepreneurship seem to be the main focus in trying to achieve this objective.

United Kingdom

Another country that has looked in detail at the evolution and future of globalisation, and the responses of government to the opportunities and challenges of globalisation has been the United Kingdom[46]. The UK Treasury in its report Long-term global economic challenges and opportunities for the UK has argued that the Government has a critical role to play in response to the challenges of globalisation.[47] It argues that responding to the long–term challenges and opportunities of globalisation will require response across a range of areas aimed at:

- Entrenching macroeconomic stability, which will give domestic and foreign businesses and individuals continuing confidence to invest in both physical and human capital

- Building an enterprising and flexible business sector that is the best in the world, where firms can succeed and seize the opportunities presented by a more open and competitive global economy.

- Promoting innovation to ensure that the UK is a world leader in turning scientific research into business innovation at a time of increasing returns to innovation and technologically advanced industries in the world economy.

[46] HM Treasury (December 2004). Long-term global economic challenges and opportunities for the UK
[47] HM Treasury (December 2004). Long-term global economic challenges and opportunities for the UK

- Ensuring everyone in the workforce has the skills necessary to take higher, value-added jobs and the flexibility to retrain and adapt to new technologies and innovation.

- Ensuring fairness through policies that provide security for people when they need it and provide incentives to work and save at a time when the pace of change in the global economy will be ever quicker and more intense.

- Increasing the energy and resource efficiency of the economy by use of technological innovation and promoting low-carbon energy sources.

In many aspects the thinking of the UK Treasury is similar to that of Denmark. Its responses are focused not so much on trade liberalisation (although this is still part of its findings) or trade or investment promotion but on building a competitive environment for businesses including promoting the importance of innovation, skills and entrepreneurship. Initiatives to be undertaken to achieve this are not outlined to the extent that they are in Denmark.

As with Denmark and Ireland, it is important to remember that the United Kingdom is part of the European Union and, as such, does not have individual responsibility for trade negotiations at a country level.

Australia

Australia's response to globalisation and economic development in general over the last two decades consists of a number of different elements:

- Liberalisation of tariffs. The 25% across the board tariff cut in 1973 arguably marked the beginning of microeconomic reform. Tariffs on all products have substantially fallen since the mid-1980s

- In 1983, the exchange rate was floated and capital controls were lifted.

- From the later 1980s and again in the late 1990s, labour markets and industrial relations, as well as education and training were substantially reformed

- In 1995 reforms were introduced to ensure that Commonwealth and State governments review current and proposed legislation to ensure competitive neutrality between public and private sector providers of goods and services.

- In the second half of the 1990s there were further microeconomic reforms embracing the waterfront, corporate laws, industrial relations and labour market flexibility, financial sector reforms, and tax reform.

In recent years Australia has been actively pursuing increased economic integration with Asian economies and the United States. This has taken the form of free trade agreements (FTAs) with a number of countries: United States, Thailand, and Singapore. In addition Australia is engaged in a number of current negotiations: China, Malaysia and ASEAN, and is actively working towards the commencement of other negotiations such as with Japan and Korea. As well as FTA negotiations, Australia has also been engaged in a number of capacity-building initiatives with regional economies, both in Asia and the Pacific, in areas such as insolvency, corporate governance and public sector reforms.

While Australia has been proactive in terms of engagement with regional economies by progressing initiatives such as FTAs it can be argued that its biggest benefit from

globalisation has resulted from its considerable stocks of raw materials. As world economies, particularly those in Asia with insufficient domestic stocks of raw materials, have undertaken substantial economic growth demand for raw materials has been boosted. As a result, Australia has been riding the global boom in commodities and, at the same time, is increasingly benefiting from its proximity to Asia.

Singapore

Singapore's economic growth policies have emphasised different polices at different stages of its economic development. From independence in 1965 to 1973, economic policy was centred on the promotion of investment in Singapore particularly in the areas of manufacturing and was based in part on exploiting its advantages in terms of a supply of relatively low-priced labour. From 1974 to 1985 polices emphasised capital-intensive industries as labour shortages became apparent, and at the same time the government engaged in large-scale importation of foreign labour to address the excess demand for labour. Over this period government policies emphasised upskilling the workforce, more capital-intensive methods of production and the adoption of more advanced technology.

In 1985 a real state slump and stock market crisis, and an international recession resulted in Singapore's first economic recession. From 1986 to 1997 the Singapore government adopted policies aimed at promoting regionalisation. The Singapore dollar was also depreciated and the government's high-wages policies were relaxed. The economy soon returned to a high-growth trend.

From 1998 onwards the government has pursued policies aimed at emphasising the development of a knowledge-based economy and domestic entrepreneurship. Singapore's current approach to achieving ongoing economic growth includes positioning itself as a hub for financial services, logistics and education for regional economies.

A number of factors have been important for Singapore's economic growth:

- Sound institutions
- Relatively low barriers to trade and foreign investment
- Prudent monetary and fiscal policies
- Low corporate tax rates
- An emphasis on education
- Leverage off Singapore's geographical location in the Asian region.

In addition, Singapore has been quite proactive in advancing economic integration in the Asia region. This is illustrated by its active participation in ASEAN and the East Asian Summit and the negotiation of a number of FTAs with regional economies.

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