

International Connections and Productivity: Making Globalisation Work for New Zealand

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International Connections and Productivity: Making Globalisation
Work for New Zealand

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A C K N O W L E D G E M E N T S

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Summary

Flows of people, capital, trade and ideas are crucial to productivity and economic growth...

Raising productivity is the core economic challenge for New Zealand over the medium term. Small, high-productivity economies rely heavily on international connections – the flows of people, capital, trade and ideas between countries around the world.

In the absence of large markets in close proximity, international connections allow New Zealand to access resources that facilitate high productivity, to specialise in areas of comparative advantage and benefit from economies of scale, to access international knowledge and adapt it to domestic circumstances, and to stimulate competition to spur innovation and move resources to areas of comparative advantage.

...but New Zealand is only moderately well connected with the world economy.

New Zealand is currently a relatively open economy but only moderately well connected with the world economy. Flows of people and inward investment are relatively high. In contrast, flows of imports, exports, and outward direct investment are relatively low, compared with other small advanced economies. Distance from the main producers of new knowledge and low levels of business R&D suggest firms may have difficulty accessing technological developments.

Encouraging international connections requires more than just reducing tariffs...

Many of the means to promote international connections are well known, and New Zealand has in the past considerably reduced barriers at the border to trade and investment. But one of the messages of this paper is that being open is necessary, but not sufficient, to gain the benefits from international connections. More generally, three main aspects in this paper may differ from more traditional discussions:

...and policy settings across the board could benefit from taking an international perspective.

- The impact of domestic policy settings on international connections is pervasive. We think policy making would benefit from more consistently considering international aspects, such as comparing with other countries' policy settings or assessing the impact of policy on connections.
- Perhaps the most important part of international connections is access to foreign knowledge. Knowledge transfer comes particularly through flows of imports and FDI and increasingly from movements of highly skilled and mobile people. The capacity of domestic businesses to absorb foreign knowledge is also crucial.
- Future global trends in labour mobility, the rise of the service sector, and the importance of Asia should be shaping policy making.

Overall, we identify three broad priority areas for policy attention: domestic policy settings, regional economic integration, and further reducing barriers at the border.

International Connections and Productivity: Making Globalisation Work for New Zealand

Introduction

Motivation

"During their periods of fast growth, [13 successful economies in the post-war period] all made the most of the global economy. This is their most important shared characteristic and the central lesson of this report. ... To put it very simply, they imported what the rest of the world knew, and exported what it wanted."

The Growth Report: Strategies for Sustained Growth and Inclusive Development,
World Bank Commission on Growth and Development, 2008

Raising productivity is the central economic challenge New Zealand faces to raise living standards over the medium term.¹ New Zealand's international connections are an important driver of raising productivity, but as this paper will show, New Zealand is currently only moderately well connected to the world economy and faces particular challenges, particularly due to distance from major markets.

International connections are important for driving productivity and economic growth.

Last year, Treasury published a series of papers that set out the key drivers that influence productivity performance and the ways in which it can be improved.² The papers identified five drivers of productivity: innovation, enterprise, investment, skills, and natural resources. International connections were identified as important for all five drivers of productivity. This paper adds to that series of papers by describing how international connections can support New Zealand's economic performance and identifying the policy areas to focus on.

The current international environment is dominated by the global financial crisis that began in 2008 and has resulted in a global recession. In the

¹ See Treasury (2008a).

² Treasury (2008b) is the first in the series.

short term, world trade and financial flows are rapidly reducing and a degree of protectionist sentiment is evident in a number of policy responses around the world.

But in an environment of recession and substantial structural change in the global economy, policy makers should be considering how New Zealand can come out of recession in the best possible position for the future. The best outcome would be that appropriate changes occur to New Zealand's policy settings to improve productivity and economic growth. An important part of that mix will be policy changes that strengthen international connections. Consequently, this paper is deliberately focussed on how international connections could be strengthened over the medium term.

While there are a number of different scenarios of how the world economy will evolve over time as it recovers from the current crisis, the central messages of this paper are unlikely to change.

Organising framework

International connections can be thought of as flows of resources: people, capital, trade, and ideas.

In this paper, we use a simple organising framework for international connections, as summarised in Figure 1. The framework is intended to help think about the role international connections can play in increasing standards of living in New Zealand. It is a stylised representation and is not an actual model of economic growth. In practice there are feedback loops and complex inter-dependencies. The main components are:

- Economic interactions between New Zealand and the rest of the world occur through flows of resources – that is, people, capital, trade, and ideas.³
- The flows provide economic benefits by allowing New Zealand to access resources, specialise, access international knowledge, and stimulate competition—and ultimately drive productivity and economic growth.
- Engagements with international agencies and other countries can be used to influence international policies and flows in ways that benefit New Zealand. Domestic policy settings across the board, both at-the-border and behind-the-border, have a pervasive influence on international flows.
- Context is provided by a changing global environment and New Zealand's historical and geographical context.

We make a distinction between how open and how well connected an economy is:

Being open is generally necessary, but not sufficient, to becoming connected...

- Being *open* means having low formal restrictions, such as low import tariffs or a liberal inward investment regime (sometimes called 'de jure' economic integration).

³ The terms 'ideas', 'knowledge' and 'technology' tend to get used interchangeably. In this paper, we generally use 'ideas' to mean the flow, 'knowledge' to mean the stock, and 'technology' to represent the embodiment of knowledge in a new good, service, or management or production process.

- Being *connected* means having high actual flows, such as high levels of immigration or exports (sometimes called ‘de facto’ economic integration).

We also make a distinction between policies at-the-border and policies behind-the-border:

- Policies *at-the-border* directly affect the free movement of or costs of flows actually moving across borders. This could include formal restrictions (such as tariffs or investment screening) or additional costs (such as international transport and communication costs, or the cost of international capital). At-the-border policies generally influence how open an economy is.
- Policies *behind-the-border* affect international connections indirectly through, for example, different regulatory regimes that create information costs, concerns over electricity security of supply that deter investment, relative prices that affect the dynamic process of economic development, market failures in exporting due to information spillovers, and so on. Both at-the-border and behind-the-border policies generally influence how well connected an economy is.

...and becoming connected generally requires looking at policies behind the border.

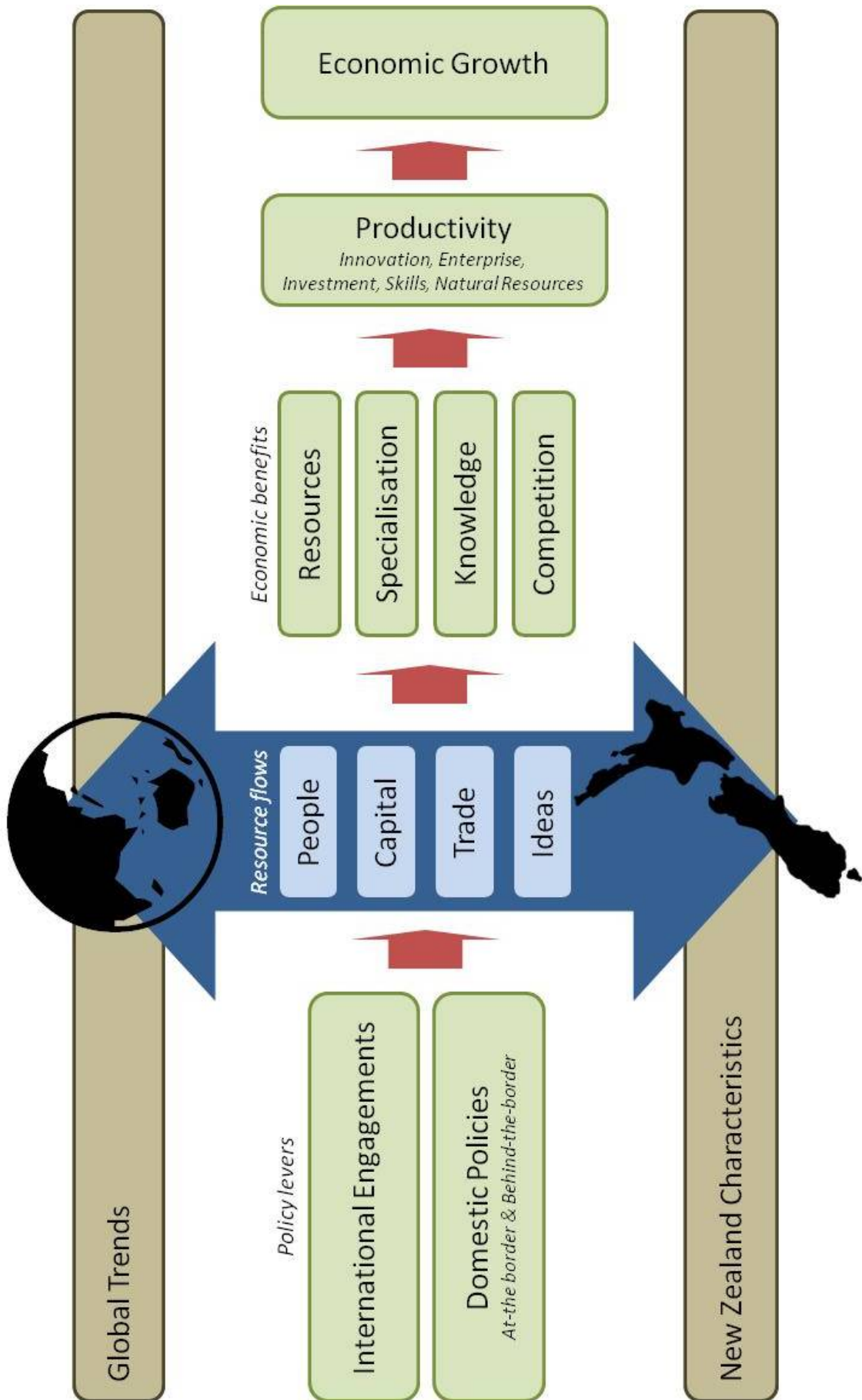
Paper outline

This paper is organised as follows: The next section briefly covers the dominant international trends that will shape the external environment over the medium term, along with the main domestic characteristics that will influence how New Zealand responds.

- The following four sections consider each of the four international flows in turn, covering: the link to economic growth, based on evidence drawn from the economic literature; an assessment of how open and connected New Zealand is currently; a discussion of potential adverse consequences that are sometimes raised; the future outlook; and general policy lessons that can be drawn out. Given the breadth of coverage, the paper attempts to set out stylised facts, with references and some additional information included as footnotes.⁴
- A discussion section focuses on a few particular ideas that we argue, deliberately somewhat provocatively, require a change in mindset to realise the potential benefits from international connections.
- Finally, the conclusion identifies the main channels through which international connections provide benefit to New Zealand and suggests three broad priority areas for policy attention.

⁴ Comparator countries for all charts in the paper are other relatively small OECD economies (Australia, Finland, Denmark, Ireland) along with more usual comparators (the UK, USA, and Canada).

Figure 1 – An organising framework for international connections.



International trends and New Zealand characteristics

International trends

Globalisation

612 million

Size of China's urban middle class by 2025

Source: McKinsey Global Institute (2006)

From an economic point of view, globalisation can be characterised as two main trends: rapid growth in developing countries, particularly Asia, and greater economic integration of economic activity.

Recent decades have seen more countries involved in the world economy, and greater global flows of people, capital, trade and ideas. The result is greater worldwide competition, greater mobility of capital and labour, and shifts in countries' existing comparative advantage.⁵ A growing global middle class will demand higher value goods and services.⁶ More economic weight will shift towards Asia, bringing implications for geopolitical power and the development of multilateral institutions.

500%

Real growth in world trade from 1980 to 2007

Source: IMF (2007)

Parts of the value chain will be increasingly separated, often across borders, leading to 'trade in tasks' rather than 'trade in goods'.⁷ Global integration also brings interdependence, and new global issues will emerge, such as the current global financial crisis.

Resource pressures

Development and population growth⁸ will intensify pressure on natural resources, especially greenhouse gas emissions and water. By 2025, large parts of the world will be in conditions of water scarcity.⁹

-
- ⁵ Economist Willem Buiter, writing in the *Financial Times*, put it as follows: "rapid growth in key emerging markets...undermines established patterns of comparative advantage. Not only did new suppliers of goods and services that were potentially importable into the US compete with domestic US suppliers, the new competitors also competed with established US exporters in Europe, the Far East and other emerging markets." (Buiter, 2008)
 - ⁶ McKinsey Global Institute (2006, 2007) forecasts rapid growth in Chinese and Indian middle classes over the next 20 years, in the order of hundreds of millions of people. Spending patterns will shift from mainly necessities of food and clothing to discretionary spending in healthcare, transport, recreation, and so on.
 - ⁷ Baldwin (2006) describes this feature as 'unbundling' of the value chain, where the old paradigm of trade in final goods has shifted to a new paradigm of trade in tasks, where individual steps in creating a final product can be separated and performed in different firms and different countries.
 - ⁸ The United Nations (2007a) projects that "the world population will likely increase by 2.5 billion over the next 43 years, passing from the current 6.7 billion to 9.2 billion in 2050."
 - ⁹ The United Nations Food and Agriculture Organisation (2007b) find that "By 2025, 1.8 billion people will be living in conditions or regions with absolute water scarcity, and two-thirds of the world's population could be living under water stressed conditions." The International Water Management Institute comments that "To sustain [the needs of countries with absolute water scarcity], water will have to be transferred out of agriculture into other sectors, making these countries or regions increasingly dependent on imported food."

1.8 billion

Number of people living in countries or regions with absolute water scarcity by 2025

Source: UN (2007b)

The long-run trend in most real commodity prices is a steady decline,¹⁰ though demand-side pressures may dominate over the medium term to see historically relatively high levels in some commodity prices, despite falls from the peaks reached in 2008.

Technological change

The fast pace of technological change is likely to continue, making knowledge transfer critical. Higher skilled jobs will command a premium, with a tendency to increase inequality in income and wealth.¹¹

Technology will allow previously non-traded sectors to become traded, reinforcing global economic integration and increased competition as more parts of the value chain are traded across borders.

Demographics

21.8%

Proportion of world population aged 60+ in 2050, compared with 10.3% in 2005

Source: UN (2007a)

Developed countries will see significant demographic change, from an ageing population and from immigration. The developed world has been transitioning from a high fertility/high mortality state to a low fertility/low mortality state,¹² bringing far-reaching social, economic, fiscal, and political consequences.

Immigration from developing countries has also been steadily increasing,¹³ with implications for social capital¹⁴ and potentially beneficial linkages with developing countries.

¹⁰ Cashin and McDermott (2002)

¹¹ The IMF (2007) commented that "To the extent that technological change favors those with higher skills and exacerbates the "skills gap," it could adversely affect the distribution of income in both developing and advanced economies by reducing the demand for lower skill activities and increasing the premium for higher-skill activities and returns on capital."

¹² Lee (2003) described how "the total dependency ratio in the More Developed Countries is projected to rise sharply over the next 50 years as their low fertility increasingly affects labor force size and the baby boom generations move into old age."

¹³ The OECD (2007a) found that "since about the [1970s] oil crisis, however, the net migration rate within the OECD has been increasing, with international migration contributing more and more to population growth, compared to natural increase (the excess of births over deaths) with each passing year."

¹⁴ Putnam (2007) found that "In the long run immigration and diversity are likely to have important cultural, economic, fiscal, and developmental benefits. In the short run, however, immigration and ethnic diversity tend to reduce social solidarity and social capital."

New Zealand characteristics

Economic geography

152nd

Rank of Auckland in the list of world's largest cities by population (including surrounding urban areas)

Source: City Mayors (2007)

New Zealand can be characterised as having a relatively small population (compared with other developed economies) located some distance from the world's economic weight of Europe and North America, though closer to the emerging economic weight in Asia.

Small size means a relatively lower level of domestic competition,¹⁵ making foreign competition comparatively more important to creating a competitive domestic business environment. Small size also makes it harder to achieve economies of scale,¹⁶ and allows fewer agglomeration benefits.¹⁷ Auckland is New Zealand's largest city, but is still relatively small by world standards. New Zealand's population is thinly spread, creating challenges for infrastructure.

Distance from markets makes economic integration more difficult, given the transport and communication costs of distance, and that preferential trade liberalisation is often driven by geographical proximity.

10.1%

Reduction in New Zealand's GDP per person that can be 'explained' by economic geography

Source: OECD (2008a)

The OECD (2008a) estimated that New Zealand's distance from markets lowers its GDP per person by around 10%, equivalent to around 75% of the gap in living standards between New Zealand and the average country in the sample. Two points of clarification should be borne in mind: First, comparing against the average country hides the fact that the same study suggests distance accounts for only around 20% of the gap to USA and almost none of the gap to Australia, so there is still a large role for other factors. Second, the impact of distance ultimately depends on real costs (transport, communications, and so on), and good policy can help reduce some of these.

The close proximity of Australia, with similar institutions and history, make competition intensive for labour and capital, particularly since New Zealand and Australia have among the most free cross-border movement of labour in the world.

¹⁵ The OECD (2005) noted that "in small economies there will be a tension between the paucity of firms in many industries and the fact that these firms are often operating below optimal scale. These tensions could even be accentuated when markets are geographically fragmented, as in New Zealand. Indeed, this can lead to the presence of even smaller geographically distinct markets within the economy. The key way to circumvent the disadvantage of size is to increase exports (thereby improving the ability of firms to achieve economies of scale) and imports (thereby providing increased competition)."

¹⁶ For example, Mills and Timmins (2004) found that "large firms that are smaller on average than large firms in at least some other countries".

¹⁷ 'Agglomeration' refers to the tendency for economic activity to cluster together in close proximity, such as cities as agglomerations of people, or Silicon Valley as an agglomeration of IT companies. Agglomeration can provide benefits through, for example, information spillovers, or thicker labour markets for specialised skills. See, for example, McCann (2003).

Natural resources

17%

Contribution of the primary sector to New Zealand's GDP, including backward and forward links to the rest of the economy

Source: Harrington (2005)

Natural resources have influenced the strengths the economy has developed, such as the primary sector¹⁸ and tourism. These sectors tend to have particular characteristics: Agriculture generally faces stronger trade barriers worldwide, ownership is dominated by cooperatives, and R&D is generally lower than other sectors. Service sectors related to tourism are relatively more important to New Zealand than other developed countries.

New Zealand's water resources have allowed generally lower electricity prices and low costs for water usage, especially in the primary sector.¹⁹ Consequently, New Zealand is a net exporter of 'virtual water', since water consumption is involved in the production of many exports.²⁰

Historical and cultural context

As a former British colony, New Zealand has inherited British political and legal institutions, English is the dominant language, historically there have been strong trade and people flows with the UK, and the ethnic mix is predominantly Pākehā, though it is changing over time.

80%

Proportion of allocated water in New Zealand used for irrigation and stock watering

Source: Ministry for the Environment (2007)

The Treaty of Waitangi relationship between Māori and the Crown has implications for a number of policy areas. Perhaps the most important from an economic point of view is the importance of natural resources,²¹ making collaborative approaches desirable for resource-related policy issues.

Two 'Kiwi' attitudes that may have economic relevance are the importance of lifestyle and a 'number 8 wire' mentality. Both appear to be supported by the available survey-based evidence.²² Other attitudes that are sometimes raised are a lack of aspiration (a 'boat/bach/BMW' attitude) and tall poppy syndrome. There is little available evidence to support these attitudes, and in any case it is possible that an apparent lack of aspiration could in reality be other drivers (such as lack of competition stifling entrepreneurial activity²³).

¹⁸ Harrington (2005) described the importance of the primary sector to the New Zealand economy: "The primary sector directly contributes ... 6.8% to the country's Gross Domestic Product (GDP). If the primary sector's backward and forward links to the rest of the economy are included as well, the contribution grows to around 17% of GDP...and two-thirds of New Zealand's merchandise exports."

¹⁹ The Ministry for the Environment (2007) found that 80% of allocated water in New Zealand is used for irrigation and stock watering, and that "there is no doubt that the intensification of pastoral land use has increased the pressure on our surface waterways and groundwater".

²⁰ For example, see Chapagain et al (2006).

²¹ Article the second of the Treaty of Waitangi provides for "the full exclusive and undisturbed possession of their Lands and Estates Forests Fisheries..."

²² The Growth and Innovation Advisory Board (2004) conducted a survey into growth culture in New Zealand, and found, among other things, that "core values that focus around lifestyle and environment are paramount, closely followed by health and education", and that "such attributes as resourcefulness, practicality, fairness, cooperation, and 'give it a go' attitudes, are defining and are an important foundation for growth and innovation."

²³ For example, Knuckey et al (2002) investigated management practices in New Zealand and found: "Leaders in practices and outcomes tend to be those firms that are operating in a market where they face or perceive a significant number of key competitors. Conversely, a higher proportion of Laggards indicate that they either hold a captive market or are in a market where there is a range of non-dominant competitors."

Flows of people

Link to economic growth

86%

Proportion of migrants approved for residence who have been to New Zealand before

Source: Statistics New Zealand (2008a)

Short-term travel has a direct impact on economic activity. In many countries, tourism, business travel, and international education form a substantial part of the economy.²⁴

Travellers can help build networks. Interpersonal links can be created through business networks, or tourists can gain knowledge of the countries they visit. Short-term business travel is both a sign of global business linkages and may help stimulate closer ties through greater familiarity with markets, and other information and ideas.

Students and researchers can facilitate knowledge transfer. Students and researchers from abroad can bring ideas with them (and could become future citizens). Domestic students studying, or researchers working, abroad can bring new knowledge and experience with them when they return.²⁵

Immigrants' net impact on GDP per person is likely to be positive, but small. The effects of migration are complex and can be both positive and negative on economic performance.²⁶ The main considerations are:

25%

Proportion of new New Zealand migrants to the UK earning over £750 per week, compared with 7% for the UK population as a whole

Source: BBC (2005)

- *Immigrants provide a source of labour.* For some countries, such as New Zealand, the labour supply impact can be substantial.²⁷ The overall impact on labour supply depends on the balance of demographic, participation and employment rate effects. Note that labour supply affects overall GDP, but not necessarily GDP per person.
- *Immigrants have the biggest impact on growth when their skills are fully utilised.* Migrants tend to go through an initial adjustment period that can last 5-10 years, as they adjust to a new country, work culture, language, and so on.²⁸ The speed of this convergence can vary greatly between migrants, often depending on country of origin. Domestic policies, such as those relating to language competency or occupational licensing, may affect skill utilisation.

²⁴ Short-term travel covers anyone visiting or leaving New Zealand for less than 12 months, and can include people on short-term work or study visas as well as tourists.

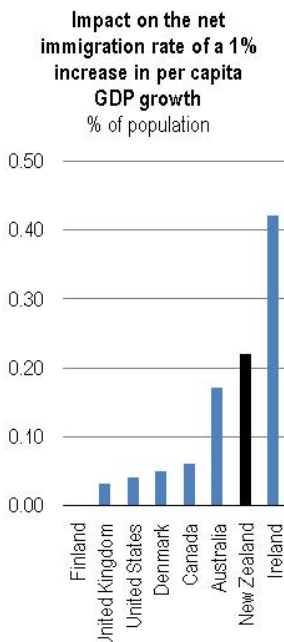
²⁵ Permanent or long-term migration covers people immigrating or emigrating for more than 12 months and can include New Zealanders on their 'OE' and foreigners studying, travelling or working in New Zealand for an extended (but potentially non-permanent) period. The impacts of migration can vary greatly according to migration type (e.g. temporary work visa, permanent residency, study permit), making aggregated analysis difficult.

²⁶ The OECD (2008b) emphasised the increasing importance of migration of the highly skilled and recommended developing mobility policies to capture the benefits.

²⁷ New Zealand is currently experiencing a labour market contraction, though until recently businesses had identified skill shortages as a constraint on business since the late 1990s (NZIER, 2009).

²⁸ See, for example, Moody (2006), Winkelmann and Winkelmann (1998).

- *Immigrants are likely to bring spillovers, but these are hard to measure.* Some evidence exists that immigration has a weak effect on productivity,²⁹ but it is not clear how this occurs. Migrants have effectively self-selected to undergo a significant life change, demonstrating a degree of ‘get up and go’, which may be associated with entrepreneurialism.³⁰ Migrants may bring ideas from abroad, create personal linkages, and can increase domestic understanding of foreign markets and country institutions. The last factor effectively reduces transaction costs to trade and investment, and some evidence shows immigrants contribute to developing trade and investment links with their home countries.³¹
- Immigrants tend to impact positively on public finances, but this is not enduring enough to address the effects of population ageing. Immigrants tend to be younger on average than the native population, which suggests a beneficial fiscal impact.³² This work takes a ‘snapshot’ approach rather than a ‘lifecycle’ approach, however, and if they remain within the economy, immigrants will tend to use more public services as they age.



Source: OECD

Overall population appears to matter less for economic performance than effective market size. It is sometimes suggested that a higher population would allow greater economies of scale and higher growth, and could be achieved through higher immigration. However, the more important determinant appears to be ‘effective’ market size – that is, the market size achieved through both the domestic market and through international connections, including people flows.³³

Emigrants represent a loss of labour and skills, but can still provide benefits. While they are gone, emigrants may bring economic benefits through personal or business links between the home and adopted countries.³⁴ Emigrants may eventually return to their home country, returning with knowledge, experience, and links with their previously adopted country.

²⁹ Poot and Cochrane (2004) commented that New Zealand evidence “comes from a macroeconomic causality analysis of net immigration and total factor productivity (TFP) growth, ... [which] showed that there was only a weak effect of immigration Granger causing productivity improvements, but a much stronger effect of net migration responding positively at times when TFP growth was faster than usual.”

³⁰ Inkson et al (2004)

³¹ For example, Girma and Yu (2000) found evidence of a link between trade and migration for the UK. Bryant, Murat and Law (2004) found a similar link for New Zealand. Dolman (2008) found that: “countries tend to trade and invest more with countries from which they have received more migrants”, though “migrants appear to reduce trade with other countries so that the overall effect on aggregate trade seems quite small”.

³² Slack et al (2007)

³³ For example, Davis (2008) finds that “the popular identification of scale with a nation’s population size is the result of function forms adopted for analytical convenience, rather than a fundamental insight into the demand for non-rival goods... Either poorly integrated domestic markets or international trade may result in national population size and other macroeconomic variables being poor proxies for the exploitation of non-rival inputs”.

³⁴ Gamlen (2005, 2007) finds that New Zealanders abroad who retain personal links with New Zealand and a sense of shared New Zealand identity are more likely to bring positive spillovers to New Zealand. Gamlen recommends developing a coherent, long-term approach to state-diaspora relations.

For some countries, migration is particularly sensitive to economic growth. Recent OECD work found that a 1% increase in growth in GDP per person would increase net immigration by between 0.17% and 0.22% of the total population for Australia, Austria, Switzerland, and New Zealand, and 0.42% for Ireland.³⁵

A range of policy settings can influence migration patterns. The main policy areas that can affect incentives to migrate are set out in Figure 2. The circular diagram reflects the fact that increasingly migration can be characterised as temporary and circular rather than permanent.

New Zealand's current situation

How open?

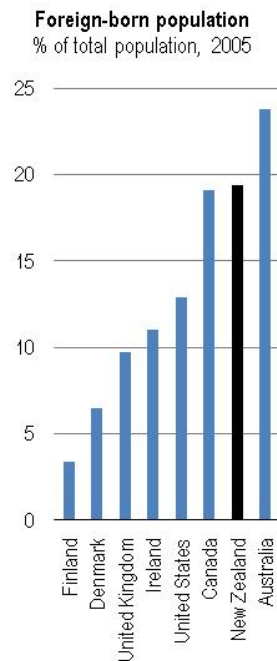
Travelling to and from New Zealand is often visa-free. Australian and New Zealand passport holders may travel or work in either country visa-free. New Zealand has reciprocal visa-free arrangements for up to three months with over 50 countries. New Zealand business travellers are eligible under specified visa-waiver schemes, and accredited business people can enter 18 economies visa-free with the APEC business travel card. New Zealand has working holiday schemes with almost 30 other countries.

Immigration for skilled migrants is subject to a points system. 60% of residence places are granted to skilled/business migrants (including family members), with the remainder under humanitarian and family-sponsored categories. A large proportion of migrants are not subject to explicit skills screening, such as Australian residents, returning New Zealanders, and spouses of skilled migrants. However, with low illegal migration, New Zealand is well-placed to implement selection policies where appropriate. A separate category for investor migrants is also available.

Transport to and from New Zealand is costly given geography. Relative to other advanced countries, transport to and from New Zealand is relatively higher cost and lower frequency. Air is effectively the only mode of transport for people, given geographical isolation, fuel costs are higher given geographic distance, and competition is relatively lower, given the smaller population base.

How well connected?

New Zealand has relatively high flows of travellers. On a per person basis, New Zealand receives about twice the visitors Australia does. The main sources of travellers are Australia (37%), UK (12%), USA (9%) and Japan (5%). Visitors from Asia make up 21% of New Zealand's visitors, compared with 40% of Australia's. Most visitors come for tourism and visiting friends or relatives. New Zealand's main attractions as a tourist



Source: OECD

³⁵ OECD (2008c)

destination include the country's scenery and reputation as being safe and relatively inexpensive. The main destinations for New Zealand travellers are Australia (50%) followed by Fiji (5%), UK (5%), and USA (5%).³⁶

International students are a significant part of temporary migration.

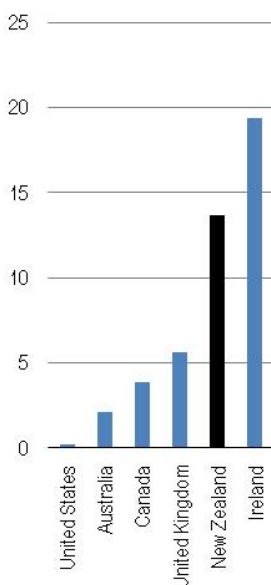
Between 2005 and 2007, 12.2% of migrants came to New Zealand to study.³⁷ New Zealand has more foreign students as a proportion of all enrolled students than any other OECD country except Luxembourg.³⁸ Nine percent of permanent migrants move to residence directly from a student visa.³⁹

The flow of migrants is relatively high. New Zealand has relatively high flows of migrants in and out, while the long term trend is for a small net inflow. To illustrate the importance of immigration to labour supply: between 1996 and 2006, New Zealand would have had no population growth without immigration, and immigration accounted for half of overall employment growth.⁴⁰

The foreign-born population is also high. Consistent immigration has resulted in a large stock of migrants: 23% of the population was born overseas according to the 2006 Census, compared with 18% in 1996.⁴¹ The main source countries are UK and Australia, but over the last ten years immigration from China, India, and Korea has increased markedly. The vast majority of migrants approved for residence have been to New Zealand before,⁴² highlighting the links between short-term travel and long-term migration.

Migration broadly represents a 'brain exchange'. Both immigrants and emigrants tend to be highly skilled.⁴³ Immigrants typically have higher education levels than New Zealand-born residents, while more than half of emigrants are classed as highly skilled. The overall 'brain exchange' can mask skill shortages in particular sectors and varying levels of labour market performance. Immigrants tend to underperform natives, but New Zealand emigrants tend to outperform natives. Trans-Tasman migration is, however, broadly representative of the overall population, as might be expected given that residents are completely free to move between Australia and New Zealand.

Diaspora
% of total population, 2001



Source: Bryant & Law (2004)

³⁶ Data from this paragraph is from Statistics New Zealand (2007a) and Statistics New Zealand (2007b).

³⁷ Statistics New Zealand (2007c)

³⁸ See OECD (2008d), Table C3.1.

³⁹ Harkness et al (2009)

⁴⁰ This result is based on data from Statistics New Zealand and Treasury calculations.

⁴¹ Statistics New Zealand (2006). Note that the chart on the previous page uses OECD comparator data that is not based on New Zealand's latest Census data.

⁴² Statistics New Zealand (2008a) found that: "Most migrants (85.7 percent) had spent some time in New Zealand prior to gaining permanent residence, and over half (54.6 percent) had been employed in New Zealand before."

⁴³ See Bushnell and Choy (2001), Glass and Choy (2001), and Moody (2006).

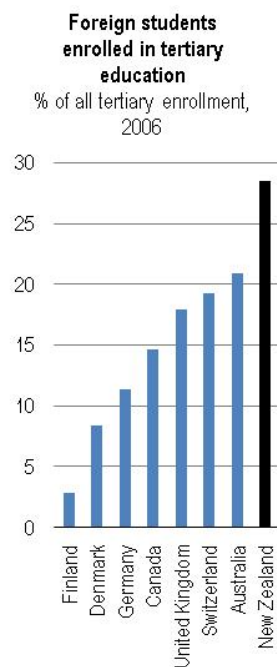
The diaspora is large, but concentrated mainly in Australia. Relative to population size, New Zealand's diaspora is large compared with other OECD countries, at about 14% of the population. The skilled diaspora is the largest in the OECD: 24% of skilled New Zealanders live abroad.⁴⁴ The vast majority, almost 80%, live in Australia – around 11% of all New Zealand-born people.⁴⁵ Significant numbers also reside in the UK, USA, and Canada.

Immigrants come mainly for lifestyle and family, while emigrants leave for job opportunities. While motivations vary, surveys suggest that the main 'pull' factors to New Zealand are lifestyle, the climate and clean, green environment, safety and security, and to provide a better future for their children. The main 'push' factors are job opportunities and standard of living.⁴⁶

Potential adverse consequences

High immigration can reduce social cohesion, at least in the short term. In New Zealand, over half the foreign-born population resides in the Auckland region, creating the potential to reduce social bonds, particularly if immigrants tend to settle in separate geographical communities. These negative effects may be able to be overcome, however, by constructing broader identities (e.g. what it means to be a 'Kiwi') and creating new forms of social solidarity.⁴⁷

Immigration could put downward pressure on native workers' wages, depending on conditions. Standard economic models suggest that an influx of foreign workers is associated with reduced market wages and increased returns to capital.⁴⁸ The degree to which this occurs and the relative strength of the effects depend on a number of factors, such as the skill difference between immigrant and native workers (more difference, less effect) and the elasticity and ownership of capital.



Source: OECD

⁴⁴ Dumont and Lemaitre (2004)

⁴⁵ Bryant and Law (2004)

⁴⁶ For example, see Inkson et al (2004), KEA (2006), and Statistics New Zealand (2008a).

⁴⁷ See Putnam (2007).

⁴⁸ For example, the Australian Productivity Commission (2006) simulated a 50% increase in skilled migration and found that the aggregate real wage increased by 33% between 2004/05 and 2024/25 in the base-case simulation, but the real wage was 1.7% lower by 2024/25 in the increase migration scenario relative to the base case. See also Borjas (2000).

Future outlook

Labour mobility is likely to increase, particularly from Asia. The increase in global migration in recent decades is unlikely to decrease, particularly as economic development in Asia sees a greater number of potential skilled migrants. The global competition for skilled talent is likely to intensify.⁴⁹

‘Circular’ migration is likely to become more common. Temporary residency is increasingly important globally, and there is a tendency towards making permanent migration decisions after arrival when the migrant has had an opportunity to ‘test out’ the host country. Many ‘permanent’ migrants move on to another host country or return to their home (i.e. circular migration).⁵⁰

General policy lessons

Policies that can be made unilaterally

0%

New Zealand's population growth between 1996 and 2006 that would have occurred without immigration

Source: Statistics New Zealand, Treasury calculations

Lift economic performance generally to create employment opportunities. Net migration is sensitive to economic growth, and the main driver of emigration is employment opportunities. Consequently, general economic performance is a core driver of migration.

Design immigration settings with a medium-term view that takes account of emigration and supports supply of skilled labour. Best practice selection involves a points system that targets skill levels of migrants and those most likely to successfully integrate and contribute, and can encourage upskilling (e.g. in English language) before entering New Zealand. Policy should be transparent, predictable, and aim to result in overall positive net immigration over the medium term to support the supply of skilled labour. The actual level of immigration depends on a variety of economic and social factors. Migration policies designed to emphasise employment will mean greater (or lower) labour demand will raise (or lower) short-term migration flows, but beyond these ‘automatic stabilisers’, policies should not be changed as a tool for short-term macroeconomic stability.

⁴⁹ See, for example, Salt (2008).

⁵⁰ See, for example, Vertovec (2007).

Facilitate speedy integration to make the most of migrants' skills. In addition to selecting migrants more likely to integrate easily, integration policies can hasten the transition to migrants and returning expatriates reaching their potential in the labour market. General labour market policies include probationary periods, secondee and internship links, and integrated occupational licensing. Specific policies include providing migrants with specialist information, advice and guidance on pathways to improving employment outcomes; specialist English language training; systems to audit and recognise migrants' skills; opportunities for work placements or trial employment; and practical steps to reduce discrimination (e.g. anonymous CVs).

11%

Proportion of all
New Zealand-born people in
the world who are living in
Australia

Source: Bryant and Law (2004)

Encourage international students to become residents. International students are often desirable permanent immigrants as they face fewer barriers to integration than new arrivals. Most have a New Zealand qualification and good English skills, and many have already been employed part-time.

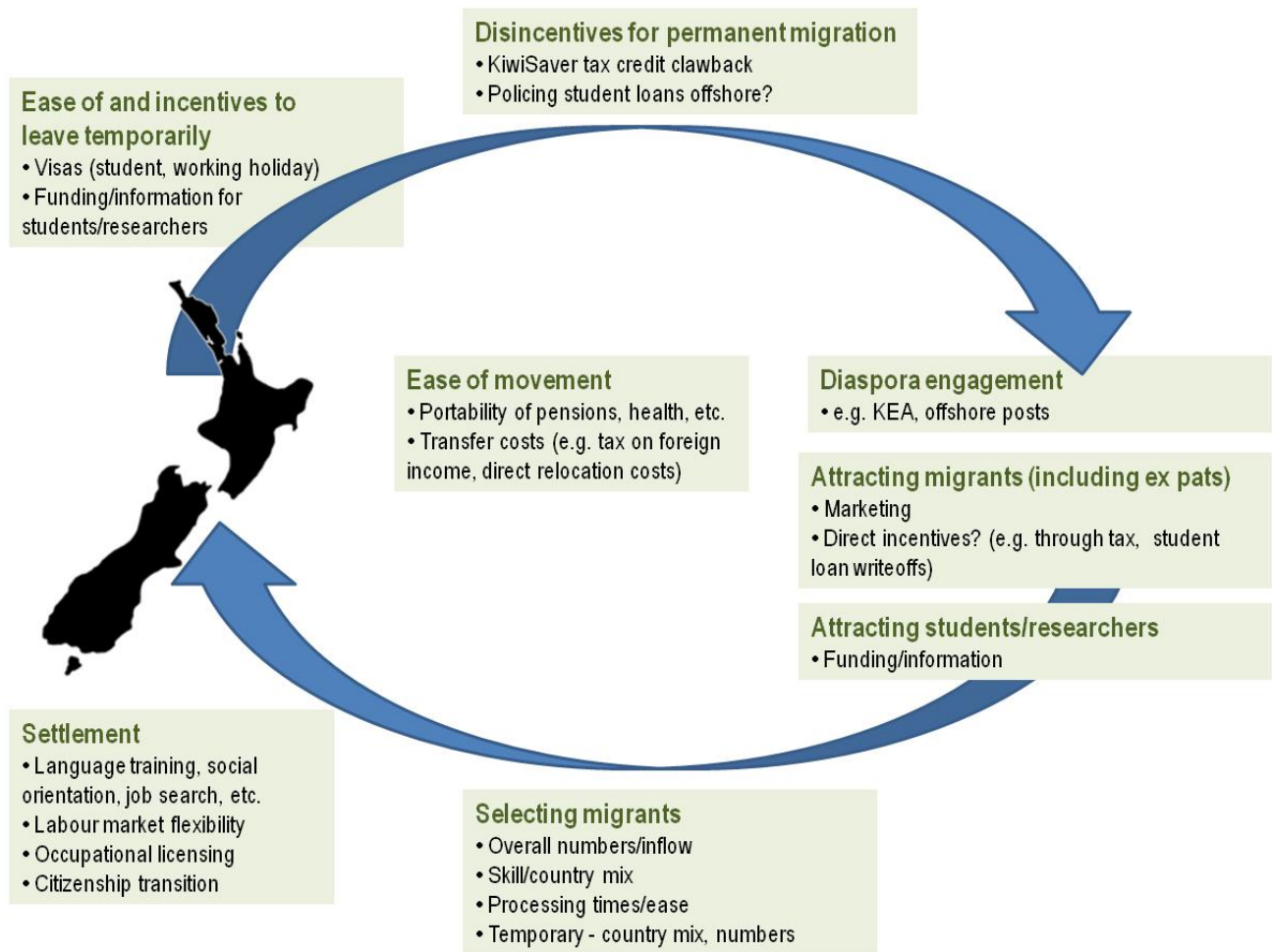
Encourage beneficial short- and medium-term migration. Some types of emigration are better than others. Policy settings should encourage temporary migration for study or working holidays, but also encourage return migration.

Keep in touch with the diaspora. Engagement with the diaspora should be coordinated in a coherent strategy. A public sector agency should have clear policy responsibility for emigration and diaspora engagement.

Policies that require international engagement and agreement

Determine and pursue New Zealand's 'offensive interests' through international agreements. Encouraging beneficial short- and medium-term flows of people can be achieved through arrangements on the movement of business people, or temporary study and work visas, for example.

Figure 2 – Summary of the main policy settings that influence circular migration

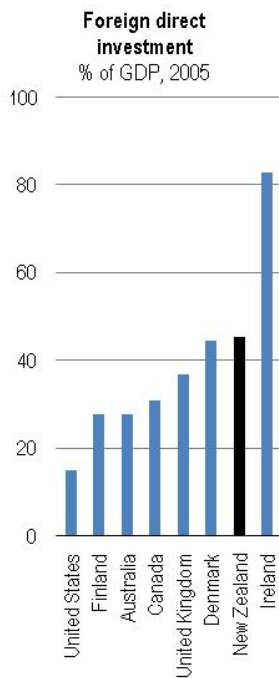


Policy settings are organised by the different stages in circular migration that can be influenced. Starting at the top left, policy settings can affect the ease of migrating temporarily through visas, information and funding. Disincentives can be provided to leave permanently: the fact that KiwiSaver tax credits are clawed back on permanent emigration is one example, and policing student loans in (say) Australia could be another. Offshore, maintaining contact with New Zealand’s diaspora can be achieved through private networks such as KEA and through government offshore posts. Attracting migrants, students and researchers can be achieved through marketing and information, and also potentially through direct incentives. The selection process for immigration is a core policy lever and has a number of aspects. Settlement of migrants onshore can have a large influence on how well migrants adapt to domestic conditions, and policy settings in language training, for example, can have an impact. Finally, the overall costs of moving include the ease of moving pension or health benefits, or the tax treatment of foreign income, for example.

Flows of capital

Link to economic growth

Access to foreign capital allows domestic investment to exceed domestic saving. The ability to access foreign saving allows countries to run current account deficits and support their economic growth.⁵¹ Foreign saving is, however, not a perfect substitute for domestic saving because information asymmetries between savers and investors increase with distance. These asymmetries may bias the destination of foreign saving toward funding debt and foreign direct investment rather than, for example, early stage finance. Foreign saving can also raise issues of increased risk premium (from country macroeconomic risk), taxation distortions, and ‘home bias’ effects. Consequently, domestic saving and capital market development are also important.⁵²



Source: OECD

Foreign-owned firms are generally more productive than domestic firms. Studies find that, on average, foreign-owned firms have higher productivity than domestic-owned firms.⁵³ The management practices of foreign-owned firms are also found to be generally better.⁵⁴ Causality is difficult to determine, as there may be an element of ‘self-selection’, where foreign investors select the better performing firms, though it seems plausible that there is also a transfer of knowledge from abroad.

Foreign direct investment (FDI) can have different motivations. Efficiency-seeking FDI is motivated by low cost production inputs, such as low labour costs or a low tax regime. Resource-seeking FDI looks to gain access to natural resources or high quality production inputs. Market-seeking FDI is motivated by improved access to the host economy market or third markets (e.g. to get past border barriers), perhaps to exploit economies of scale. Knowledge-seeking FDI looks to gain access to particular specialised knowledge. As discussed below, New Zealand’s FDI appears to be predominantly market-seeking.

FDI provides spillovers than can improve productivity. FDI is often accompanied by financial and business expertise and skills, and through ‘demonstration effects’ can allow domestic firms to imitate more advanced products or processes.⁵⁵ Multinational companies may reduce barriers to

⁵¹ For example, Makin et al (2008) investigated the impact on net national income and estimated that capital inflows increased income per worker by \$3,000 (in 2007 dollars) cumulatively between 1988 and 2006.

⁵² Treasury (2007) summarised the theory and evidence on saving and highlighted, among other things, the macroeconomic vulnerabilities from low domestic saving.

⁵³ For example, Figure 11 of Fabling et al (2008) shows the distribution for New Zealand firms.

⁵⁴ For example, see Bloom et al (2007) for international evidence and Knuckey et al (2002) for New Zealand evidence.

⁵⁵ For example, Görg and Greenaway (2003) summarise the literature and find that spillovers do exist, but the magnitude depends on the type of investment and the absorptive capacity of domestic firms. Keller and

accessing international distribution networks. FDI can also stimulate domestic competition to reallocate resources to more productive firms as inefficient firms are forced out. Competition in the services sector may be particularly important given that many services are not traded.

-87%

New Zealand's international investment position as a proportion of GDP (as at 31 March 2008)

Source: Statistics New Zealand

Spillovers from FDI do not fall evenly. Spillovers tend to occur vertically (forward and backward in the production chain) rather than horizontally (firms in the same industry), since multinationals have an incentive to prevent knowledge spillovers to competing firms, but have an incentive to assist upstream and downstream firms. Spillovers also vary between sectors.⁵⁶ Trade openness and FDI openness tend to be complements. Spillovers tend to be greater if the host country is closer to the technology frontier and has competitive markets.⁵⁷

Greenfield and tradeable FDI are not necessarily better. There is no strong evidence that spillovers are greater from FDI in 'greenfields' (new facilities) versus 'brownfields' (mergers and acquisitions, or M&A), nor in tradeable sectors versus non-tradeable. M&A involves incremental investments and may have a more rapid effect on productivity.⁵⁸

A wide range of policy settings influence FDI. The most important factors that influence an FDI decision depend on the motivation for the FDI. For example, market-seeking FDI may be more interested in general legal institutions, whereas resource-seeking FDI would be concerned with ease of access to particular resources. A broad scan of different policy settings that influence FDI is set out in Figure 3.

54%

Proportion of New Zealand's FDI that comes from Australia (as at 31 March 2008)

Source: Statistics New Zealand

The effectiveness of FDI incentives is probably low. The fact that FDI creates spillovers suggests a prima facie case for government intervention to boost FDI, and many countries offer some form of incentives, such as tax holidays. Incentives are more likely to be beneficial for some types of FDI, such as efficiency-seeking FDI (which is internationally mobile) rather than market-seeking FDI (where the main purpose of locating is access to the market itself). The available evidence suggests incentives probably do have an effect on increasing FDI, but it is unclear that this delivers an overall net economic benefit.⁵⁹ Difficulties exist in targeting incentives correctly and there is a risk of inciting tax competition.⁶⁰

Yeaple (2003) found that productivity spillovers account for 14 per cent of growth in US firms between 1987 and 1996.

⁵⁶ For example, Leshner and Miroudot (2008) found the strongest spillovers in the services sector, especially via backward linkages.

⁵⁷ For example, Girma and Görg (2005) used establishment level data from the UK and found that firms need to be within 90% of the industry technology frontier to benefit from spillovers.

⁵⁸ For example, see Sanderson (2006), OECD (2007b).

⁵⁹ For example, Haskel et al (2002) found that productivity spillovers from foreign investment are often several times less than the amount paid in subsidies to attract them.

⁶⁰ For example, see Klemm (2009) for a recent literature survey.

No strong evidence exists on spillovers from outward direct investment (ODI). Little evidence is available on spillovers from ODI, and what is available does not suggest strong spillovers. This finding does not mean ODI is unimportant – for small countries, market-seeking ODI could provide a means of achieving economies of scale, for example. The finding does suggest, however, that the benefits to ODI are largely captured by the firms themselves.

New Zealand's current situation

How open?

0

No formal barriers exist to debt and portfolio investment, and formal barriers to FDI are low. Investment screening only occurs for purchases involving significant business assets, sensitive land, or fishing quota. No business-only applications have been declined since 1984 and, from 2002 to 2008, 33 applications involving sensitive land were declined (3.5%). Nonetheless, New Zealand does not always compare favourably with comparator countries, as summarised in Table 1.

Number of business-only foreign investment applications declined since 1984

Source: Overseas Investment Office

Restrictions to foreign ownership apply in certain sectors. Some restrictions apply in telecommunications and air transportation. For example, foreign ownership in Telecom can only go above 49.9% with the approval of the Minister of Finance. Foreign-owned banks are required to be locally incorporated.

Almost no incentives are available for FDI. Investment NZ works with offshore investors and New Zealand businesses to facilitate investment. Small amounts of funding are available to conduct feasibility studies of possible investments and pre-investment site visits.

33

International agreements tend to focus on protecting investors rather than market access. Agreements through the WTO and bilateral FTAs tend to focus on investor protection mechanisms such as national treatment (treating foreign firms equally as domestic firms) and avenues to resolve disputes, such as expropriation claims, between investors and states, rather than liberalising market access (by increasing screening thresholds, for example). Non-binding agreements between OECD countries and APEC promote general liberalisation of capital flows.

Number of foreign investment applications involving sensitive land declined from 2002-2008

Source: Overseas Investment Office

How well connected?

New Zealand is highly dependent on foreign capital. New Zealand is among the most indebted in OECD, with a net international investment position of –87% of GDP. FDI makes up 34% of the total stock of foreign investment in New Zealand, with the remainder portfolio and other investment (predominantly made up of debt).⁶¹

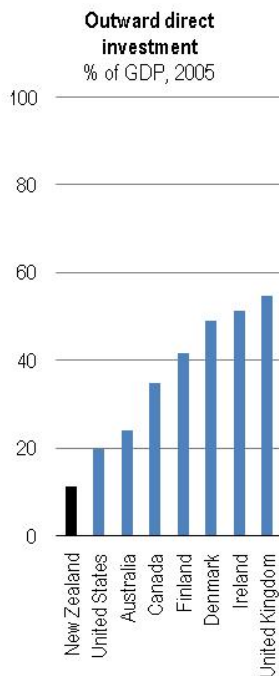
⁶¹ Data in this and the next two paragraphs is from Statistics New Zealand (2008c).

The stock of FDI is quite high compared internationally. The stock of FDI is 53% of GDP, higher than Australia and the UK, but lower than Ireland. Explanations for the high level include the large-scale privatisations of the late 1980s and early 1990s, long-standing international confidence in the New Zealand economy, and relatively low saving rates.

About half FDI comes from Australia. 54% of the stock of FDI is from Australia, with the next highest the US (12%) and the Netherlands (5%).

‘Greenfield’ investment is about average. When adjusted for population size, the number of greenfield projects in New Zealand is around the OECD average.

Apparently less ‘footloose’ FDI comes to New Zealand. Most major industries have FDI, but a larger share occurs in sectors servicing the domestic market (e.g. banking, retail/wholesale, communications/media) as opposed to ‘footloose’ FDI (e.g. manufacturing or research), suggesting largely market-seeking FDI rather than efficiency-seeking FDI.



Source: OECD

FDI occurs mainly in large firms. Around 24% of firms with more than 100 FTEs have majority foreign-ownership, compared with around 13% for firms with 50-100 FTEs.

ODI is among the lowest in the OECD. Direct investment overseas makes up 15% of all outward investment, or 12% of GDP. This level of ODI is about the half the OECD average. The main destinations for investment abroad are Australia, USA, and the UK. Over half (55%) of New Zealand’s ODI is in Australia.

Potential adverse consequences

High external indebtedness can contribute to macroeconomic risk. High indebtedness can contribute to a higher cost of capital and a macroeconomic risk of a sudden change in sentiment. The best policy response is likely to be to encourage domestic saving rather than restricting foreign ownership. Policies that support saving include financial literacy, low capital taxation, saving schemes, and saving incentives.

Concern about ‘profits going offshore’ has a weak economic basis. Greater foreign ownership increases the gap between GDP (economic activity that occurs in New Zealand) and GNI (income accrued to New Zealanders).⁶² However, the gap does not matter in itself; rather, the question is whether the gap results in lower long-term real incomes. For the reasons discussed above, foreign investment brings a number of benefits that are much more likely to increase long-term real incomes.

⁶² New Zealand is among the groups of countries where the level of GNI is somewhat lower than GDP, but it does not significantly change the relative ranking when compared with other OECD countries. The difference between New Zealand’s GDP and GNI growth over the last twenty years is very small.

Firms ‘not acting in New Zealand’s best interest’ seems unlikely to be a foreign-ownership specific problem. The proposition is that foreign ownership could result in business decisions that are detrimental to New Zealand, compared with decisions a domestically-owned firm would make. In relation to longer-term growth strategies, it seems hard to see why foreign owners would not take profitable opportunities that domestic owners would, yet are not prepared to sell to domestic owners who can see such opportunities. There may be a narrow set of specific cases where some restrictions could be desirable – the requirement of local incorporation for banks perhaps provides a good example.⁶³

24%

Proportion of New Zealand firms with 100+ FTEs that have majority foreign ownership

Source: Statistics New Zealand

Foreign ownership probably does increase the chances of relocation. Some evidence suggests foreign ownership will, over time, make a company more likely to relocate offshore.⁶⁴ Whether this is good or bad for New Zealand depends on what replaces the activity: are the resources reallocated to lower value activities or lost offshore, or is the expertise gained used in new higher value activities onshore? Navman perhaps represents an example of the latter, where an innovative business is sold, but some of the expertise (in the form of human capital) has remained in New Zealand. The first set of policy responses would focus on the general business environment and removing any biases that may incentivise relocation offshore (such as double taxation of dividends for offshore shareholders). Beyond that, policy responses should target activities or skills, rather than particular firms.

Land is important to the Kiwi psyche, but targeting usage is likely to be more effective. Concerns over land ownership seem more likely to be related to the *use* of the land, such as restricting walking access, rather than ownership per se. These concerns seem to be valid regardless of the nationality of the owner: there is no reason to think foreign owners would be any ‘worse’ at (say) allowing walking access than domestic owners. Therefore the most effective policy response would be to focus on (say) walking access directly and across the board.

Security concerns are best addressed through international standards and guidelines. The proposition is made that foreign investment may have ulterior motives that could jeopardise national interests, such as acting non-commercially to achieve state-motivated objectives. International standards for money laundering and counter terrorism and international best-practice guidelines for sovereign wealth funds are the first-best policy response.

⁶³ The argument was that Australian banks wouldn't necessarily act in New Zealand's best interests in the event of a financial crisis: parent banks could drain liquidity in a crisis situation to meet demands at the core.

⁶⁴ Sweet and Nash (2007) investigated location decisions, and found a number of factors that can influence such decisions, including centre of business gravity, global supply chains, and distance-sensitive market data. Foreign ownership was also found as one potential factor.

Future outlook

Competition for capital will continue. Global financial flows have risen significantly in recent decades, and countries have become more open to foreign investment, creating increased competition for internationally mobile capital. In the short term, the financial crisis will squeeze the availability of capital, but longer term competitive pressures are unlikely to abate.

Capital will increasingly come from Asia. The large current account surpluses run by some Asian economies in recent years means that an increasing portion of global capital will come from Asia, particularly China.

General policy lessons

Policies that can be made unilaterally

Keep investment screening to a minimum, if at all. As a first best, New Zealand should not screen investment based solely on the fact that the investor is not a New Zealand citizen. Screening is not the best way to address concerns about foreign investment. As a second best, any screening regime should be as low cost as possible and provide certainty and predictability to investors.

Undertake limited promotion, but avoid direct incentives. Promotion offshore can raise the profile of New Zealand as an investment destination. The costs of direct incentives for FDI are, however, likely to outweigh any benefits.

Create a generally attractive business environment. An important part of investment decisions is the quality of the general business environment. There may be specific aspects that more directly affect the attractiveness to internationally mobile capital, such as taxation.

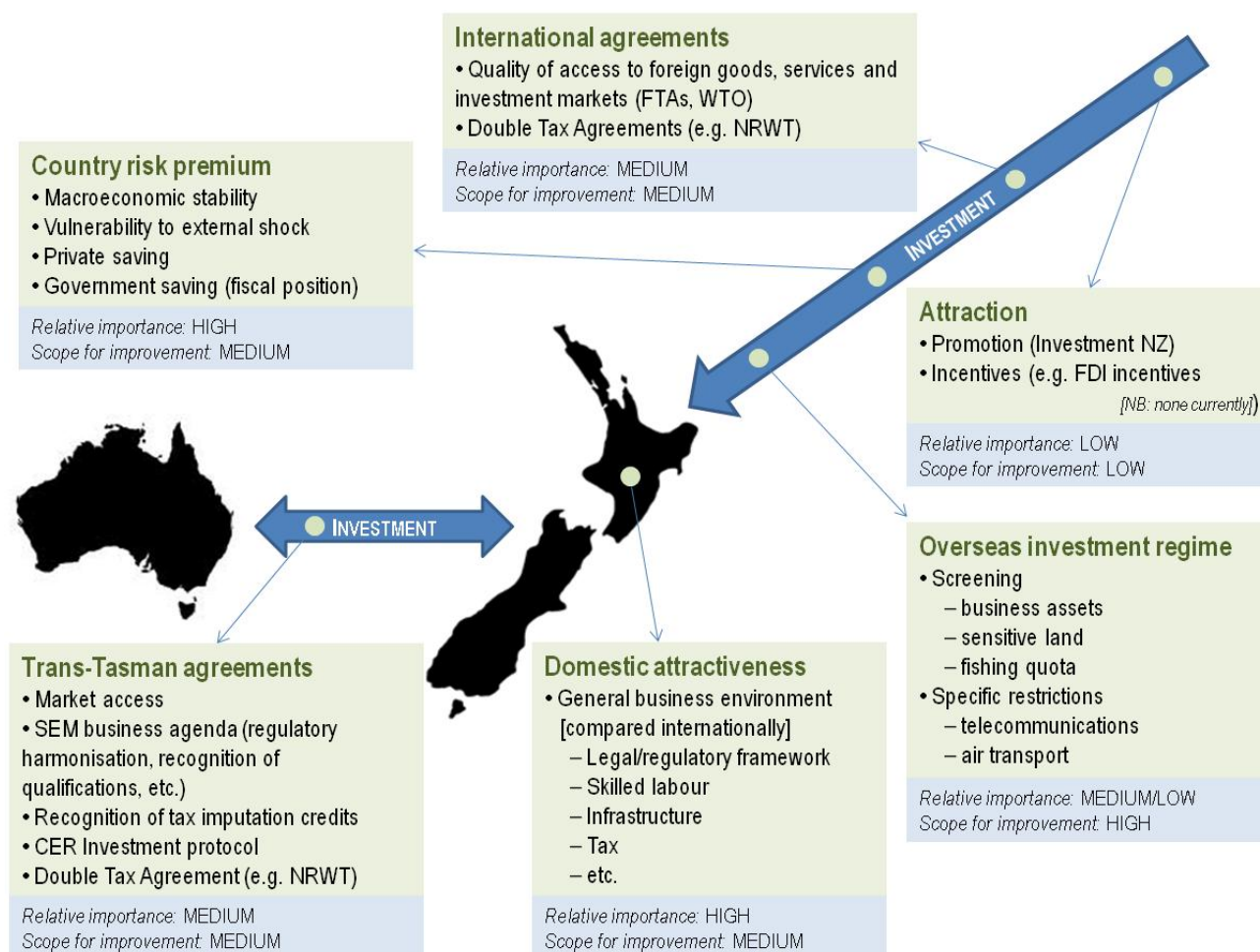
Lean against macroeconomic risk by encouraging saving. Use policies to encourage domestic saving and keep Crown debt at prudent levels.

Policies that require international engagement and agreement

Promote free capital flows in international forums. Use New Zealand's engagements with countries through forums such as APEC to encourage liberalisation over time.

Reduce additional costs of capital flows, such as trans-Tasman mutual recognition of tax imputation credits, and double tax agreements.

Figure 3 – Summary of the main factors and policy settings that influence FDI.



Policy settings are organised by the different aspects that influence investment. Offshore, investment can be attracted through promotion or incentives. Attractiveness will be influenced by international agreements and country risk premium. Investment screening can add costs to the investment process. The most important factor that influences investment is the general attractiveness of the domestic business environment in creating high-quality investment opportunities. Trans-Tasman agreements play a particular role given the close economic relationship.

Table 1 – Indicators of openness to foreign investment: comparison with other countries.

Index	Ranking	Criteria
OECD: FDI Regulatory Restrictiveness Index	29th out of 43 countries (2007)	Equity, operational and screening restrictions on foreign investment.
Index of Economic Freedom: Investment Freedom	18th out of 157 countries (2008)	The free flow of capital, especially foreign capital.
World Competitiveness Yearbook: International Investment	49th out of 55 countries (2008)	Quantitative and qualitative information including stocks and flows of FDI, and perceptions of threats of the relocation of production, research and development and services abroad.

Flows of trade

Link to economic growth

12.3%

Average applied tariff and non-tariff barriers on imports to New Zealand

Source: World Bank (2008)

Trade allows countries to specialise in areas of comparative advantage. A country can raise its standard of living by exporting in areas where its firms are comparatively more efficient or more innovative than another country's firms, and importing in areas where this is not the case. The ability to access a larger market provides economies of scale.

Imports stimulate domestic competition. Foreign competition can pressure domestic firms to remain competitive and increase productivity over time, or be forced to exit the market. Small countries tend to have relatively higher market concentration than larger countries, making foreign competition likely to be relatively more important.

Technology embodied in imports provides access to foreign knowledge. A number of studies have found that technology travels with imports, though the magnitude of spillovers is not firmly established.⁶⁵ FDI is likely to be a stronger channel for accessing foreign technology.⁶⁶

26.7%

Average applied tariff and non-tariff barriers on New Zealand's exports

Source: World Bank (2008)

Exporters are generally more productive than domestic firms. Studies consistently find that, on average, firms that export have higher productivity than purely domestic firms, though there is wide heterogeneity among firms.⁶⁷ Firms that also engage in outward investment are more productive again.⁶⁸

Causality runs most strongly from productivity to exporting, not the other way round. The weight of the literature tends to suggest firms don't 'learn by exporting'.⁶⁹ Evidence based on New Zealand data also tends to support 'self-selection', where more productive firms enter exporting. It is

⁶⁵ For example: Madsen (2008) found that the international patent stock, as well as knowledge spillovers through imports, has contributed significantly to productivity growth. Gwanghoon (2008) found robust evidence of international knowledge transfers through flows of international goods imports. Busse and Groizard (2007) found that trade in general isn't associated positively with per-capita income levels, but technological trade is. Eaton and Kortum (2001) found that geographical barriers to trade in equipment explain a high percentage of international differences in productivity due to geography's impact on the relative price of equipment.

⁶⁶ Industry studies that have evaluated all four channels (importing, exporting, FDI, licensing of technology) tend to find significant individual productivity effects of FDI, exporting, and importing, but not licensing (Yasar and Morrison Paul, 2005).

⁶⁷ For example, see Figures 9, 10, and 12 in Fabling et al (2008).

⁶⁸ For example, see Mayer and Ottaviano (2007).

⁶⁹ Sanderson (2006) surveys both sides of the debate. Álvarez et al (2007) used comparable micro level panel data for 14 countries and found: "Our overall results are in line with the big picture that is by now familiar from the literature: ...there is strong evidence in favour of self-selection of more productive firms into export markets, but nearly no evidence in favour of the learning-by-exporting hypothesis."

possible that firms ‘gear up’ and increase productivity prior to exporting.⁷⁰ This finding means that the general productivity of a country’s firms is a crucial driver of export performance.

Small countries tend to trade more than larger countries, relative to the size of the economy. A smaller domestic market provides limited economies of scale or access to global knowledge, and consequently small countries tend to trade more than larger countries.

Constraints to trade come from geographic, administrative, cultural, and information costs. A wide variety of factors tend to raise the costs of trading between countries, as summarised in Table 2.⁷¹

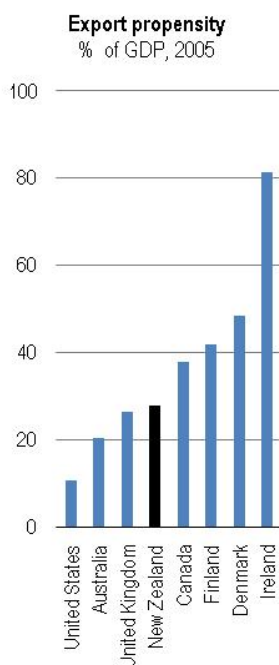
Trade has complementarities with capital and people flows. Trade and investment liberalisation are often recommended together as they tend to reinforce each other. As discussed earlier, migration may increase trade by knowledge of social and business networks reducing transaction costs, or by migrants’ preferences increasing demand for source country products. The linkages between trade and migration could be relatively stronger for New Zealand because of New Zealand’s greater distance from markets and consequently greater transaction costs.

Spillovers from exporting are most likely in new activities. Spillovers from export activity are most likely to occur when the exporter is doing something new, such as starting to export, entering a new export market, or starting to export a new product.⁷²

New Zealand’s current performance

How open?

Formal barriers to imports are low, but in many countries they are lower. Around 95% of goods (by value) are imported tariff free, and the free trade agreement with China will increase the range of products that enter New Zealand tariff-free. Even so, New Zealand does not compare that well on total trade barriers with some countries.⁷³ Over the medium term, tariffs will be further reduced by existing or future FTAs and unilateral reductions.



Source: OECD

⁷⁰ Hallward-Driemeir, Iarossi and Sokoloff (2002) argued that the increase in productivity just before entering export markets is due to an increase in investments aimed at raising productivity and the quality of goods in order to compete.

⁷¹ Anderson and van Wincoop (2004) provided a literature survey of trade costs, including attempts to quantify the different types of costs (see Table 7).

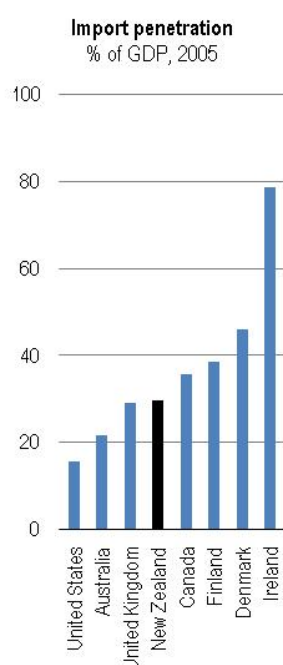
⁷² For example Hausmann and Rodrik (2002) argued that “In the presence of uncertainty about what a country can be good at producing, there can be great social value to discovering costs of domestic activities because such discoveries can be easily imitated.” Procter (2008) emphasises the importance of innovation (i.e. rather than exporting per se) and provides characteristics for when government intervention could be warranted.

⁷³ According to the World Bank’s World Trade Indicators 2008 (World Bank, 2008), New Zealand ranks only 43rd of 125 countries for inbound average applied tariffs. New Zealand’s indicator is low, at 2.8%, but many advanced economies have even lower.

Overall ease of trading across borders is reasonably low, though not among the very lowest. Table 3 summarises New Zealand’s rankings in a number of cross-country comparisons. These studies generally cover a subset of the sorts of trade costs identified in Table 2. In some areas, such as non-tariff barriers (largely requirements for documentation), New Zealand does not compare that well.

Barriers to service imports are low. Barriers to services come in the form of domestic regulatory regimes that may be horizontal, affecting all services (such as residency requirements for service providers, or non-recognition of qualifications), or sector-specific barriers (such as restrictions on the establishment of off-shore campuses by New Zealand educational providers). New Zealand is one of the world’s most open service economies.

International market access is relatively poor in some areas. New Zealand exporters face relatively high tariffs, particularly in agriculture. Full global liberalisation of agriculture and food products has been estimated to increase New Zealand’s exports of agricultural and food products by 72%.⁷⁴ These high barriers make multilateral (i.e. WTO), plurilateral (e.g. TransPac), and bilateral FTAs highly important for New Zealand.



Source: OECD

How well connected?

Total exports are lower than other small advanced economies. New Zealand’s ratio of exports to GDP is in the bottom half of the OECD, ahead of larger countries such as Australia and the UK, but behind other small economies such as Ireland, Denmark, and Finland. To some extent, this finding depends on how exports are measured and what is controlled for: Nominal exports to GDP are affected by exchange rate movements and have consequently gone through cycles, with the general trend over the past 20 years a slow increase. Real exports to GDP have followed a slow increase. Modelling that takes into account the effect of distance suggests New Zealand exports around what would be expected.⁷⁵ The import content in New Zealand’s exports is relatively low, probably reflecting the sectoral composition of exports. New Zealand’s share of world trade has been roughly constant at around 0.36% since 1990.

Total imports are also lower than other small advanced economies. Import penetration is relatively low compared internationally,⁷⁶ and is also low once adjustment has been made for other economic factors, including population, per person income, and transportation costs.⁷⁷ This finding may in part reflect the composition of New Zealand’s exports (i.e. primary and service exports tend to have lower import content): the flipside is that

⁷⁴ Anderson (2008)

⁷⁵ See Figure 4 of Battersby and Ewing (2005).

⁷⁶ De Backer and Yamano (2007)

⁷⁷ See Figure 3.1 of OECD (2008e).

the domestic value-added content of exports is relatively higher. Regardless of the driver, lower overall imports tend to mean less of the competitive pressure and embodied knowledge that accompany imports.

23%

Proportion of New Zealand's merchandise exports that are to Australia (year ended June 2008)

Source: Statistics New Zealand (2008b)

Goods exports are dominated by food and raw materials, and the level of processing is gradually increasing. Meat, dairy, and other food exports account for about half New Zealand's exports. The proportion of products that are 'processed' and 'elaborately transformed' has been gradually increasing in recent years. The composition of exports looks similar to other natural resource-based countries, such as Norway, Australia, and Canada.⁷⁸

Service exports are dominated by travel. Top service exports in 2006 were travel (66%) and transportation (22%), reflecting the importance of tourism.

Main imports include fuels and machinery. Fuels and oils are New Zealand's most valuable imported products. Other significant imports include machinery, motor vehicles, and electrical machinery.

New Zealand's largest trading partners are Australia, USA, China, and Japan. Top destinations for merchandise exports for the year ended June 2008 were Australia (23%), USA (10%), Japan (8%), and China (5%). Top sources of merchandise imports were Australia (20%), China (13%), USA (9%), and Japan (9%).⁷⁹

76%

Proportion of all New Zealand's exports of goods by value produced by 1.4% of exporting firms

Source: NZTE (2007)

Exports are moderately concentrated in product mix and highly concentrated in firms. More advanced countries tend to have more diversified exports. New Zealand's 25 top export products account for 50% of the total value of exports, compared with 29% for the rest of the world.⁸⁰ As is the case in many other countries, very few firms earn the large majority of export earnings. In the year to June 2007, 76% of exports of goods by value were generated by just 176 exporting firms (1.4%).⁸¹

New Zealand firms do not seem to be well connected to emerging international production networks. Use of offshoring has increased in recent years, but still remains in the bottom half of the OECD. Use of offshoring in the manufacturing sector is particularly low while in the services sector it is comparatively higher.⁸² Other indicators based on node degree (number of trading partners), node strength (trade value of connections), clustering (presence in triangular trade networks), and centrality (to world trade chains in intermediate products), suggest that New Zealand is around the middle of the OECD.⁸³ Possible explanations

⁷⁸ Hausmann et al (2006) created a measure that aims to capture the productivity level associated with a country's exports. The measure for New Zealand is similar to Australia, Norway, and Canada.

⁷⁹ Statistics New Zealand (2008b), Table 1.2.

⁸⁰ Lattimore et al (2008)

⁸¹ NZTE (2007)

⁸² De Backer and Yamano (2007)

⁸³ Lattimore et al (2008)

for these findings include the dominance of natural resource production, which may be less amenable to fragmented production across countries, and transportation costs due to distance.

72%

Projected increase in New Zealand's agricultural and food exports if all countries fully liberalised trade in all goods.

Source: Anderson (2008)

Internationalising happens at a relatively earlier stage in a firm's life cycle. Compared with other developed countries, firms 'outgrow' the domestic market more quickly and need to internationalise from a relatively earlier stage in their growth, with correspondingly lower scale and balance sheet capacity. The pool of people with extensive experience and expertise in internationalising businesses from an early stage in a firm's life cycle is probably relatively small.

Large exchange rate cycles may dampen export development. Firms appear to manage short-term volatility in the exchange rate through hedging,⁸⁴ though large-amplitude medium-term exchange rate cycles probably do have an impact on medium-term export development.

Potential adverse consequences

Greater income inequality is driven much more by technological progress than trade. Public perceptions exist that globalisation will result in higher inequality. However, studies tend to find that the main factor driving greater inequality is in fact technological progress.⁸⁵

Offshoring can create transitional pressures, which may warrant limited government support. Globalisation is likely to result in transitional adjustments, as some firms may close in the face of international competition, or some jobs may be offshored to countries with lower production costs or better access to markets. This reallocation of resources is the mechanism that raises overall productivity over the medium term. In the short term, transitional dislocations will occur, and can be mitigated by policies to encourage greater social mobility, to provide opportunities for retraining, and to supply social safety nets.

'Food miles' is too simplistic as a measure of environmental impact. Some commentators point to long transportation distances from imports as a reason to buy locally. This argument would more correctly consider whole-of-life greenhouse gas emissions, where New Zealand exports generally compare well.⁸⁶

⁸⁴ Fabling and Grimes (2008) found "strong evidence of selective hedging, particularly for AUD exposures".

⁸⁵ For example, the IMF (2007) found that technological progress explains most of the 0.45 per cent average annual increase in Gini coefficient (a measure of inequality of incomes) from the early 1980s. Trade and financial globalisation and financial deepening contributed a further 0.1 per cent a year each to raising the Gini coefficient, offset by almost equivalent reductions in the Gini coefficient from access to education and a shift of employment away from agriculture.

⁸⁶ Saunders et al (2009) found that "due to the different production systems even when shipping was accounted for [New Zealand] dairy products used half the energy of their UK counterpart and in the case of lamb a quarter of the energy." The main reasons are that New Zealand tends to use less energy intensive fertilisers, feed animals mostly grass rather than grain, and does not generally house animals.

Food supply is likely to be more secure through more rather than less trade. The global food price spikes in 2008 raised concerns among some that reduced self-reliance in food production results in greater risks of food security. This argument does not seem particularly strong: many of the food prices that spiked highest were traded relatively less internationally, such as rice. Over time, freer farm trade is likely to result in greater supply of and more efficient food production.

Future outlook

Agriculture is likely to be an ongoing area of comparative advantage. Global trends in population growth and water scarcity suggest that demand for agricultural production is likely to increase in the medium term. One study finds that New Zealand is expected to gain more than other developed countries from the expected expansion in China and India.⁸⁷ The implication is that domestic policy settings that influence the growth prospects of the agricultural sector are important for New Zealand's future international competitiveness.

50%

Proportion of world trade that will be in services by 2020

Source: World Trade Organisation

The importance of services is likely to increase. The WTO estimates that 50% of world trade will be in services by 2020, through cross-border trade (e.g. an architect working for a foreign client), consumption abroad (e.g. international students), a commercial presence abroad (e.g. a foreign bank opening a domestic branch), or the movement of people (e.g. a visiting foreign academic). Given that barriers to services trade come almost exclusively from domestic regulation, it puts increased weight on the domestic regulatory environment and international approaches to reduce behind-the-border barriers in other countries (e.g. APEC). International telecommunication costs are also relatively more important for services, putting emphasis on the cost, speed, and availability of broadband.⁸⁸

'Trade in tasks' is likely to continue. As discussed earlier (page 6), the shift in the past decade towards breaking up the value chain is likely to be sustained, driven by technological progress lowering the cost. New Zealand's industry structure (i.e. primary sector dominance) potentially allows for less fragmentation of the supply chain than in other countries, and there is perhaps an open question about the extent to which this matters. It is also interesting to consider what factors might actually reverse the current trend. Technology is lowering the cost of separating tasks, but perhaps increased information costs may provide a limit.

⁸⁷ Dimaranan et al (2007)

⁸⁸ Skilling and Boven (2007) discussed developing the 'weightless' economy and emphasised the importance of telecommunications infrastructure.

General policy lessons

Policies that can be made unilaterally

Encourage imports through low barriers. Imports are an important source of competition and foreign knowledge. At-border barriers such as tariffs, customs and port procedures should be kept as low as possible.

Lift firm productivity generally to encourage exports. Given the causal link runs most strongly from productivity to exports, improving firm productivity generally is likely to be the strongest driver of better export performance.

Reduce specific barriers to firm internationalisation. Some barriers exist that affect exporters specifically rather than the domestic economy:

- *Ensure international transport and communication links are as low cost as possible*, through a mix of regulatory and competition settings, ownership settings, and government provision. Policy areas to pay particular attention to are shipping and sea ports, aviation and airports, customs facilitation, and telecommunications such as broadband,
- *Dampen large medium-term exchange rate cycles.* The tools to reduce exchange rate cycles all have trade-offs. The best response is to reduce the risk of pro-cyclical fiscal policy and to maintain a sustainable, predictable and smooth medium-term adjustment path.
- *Help reduce informational costs*, through an offshore network of posts that provide in-market support and knowledge, limited government grants for market development (with a focus on 'new' activities, and in line with international obligations), and skills and training with a recognition of the challenges in internationalising from an early stage in a firm's life cycle.
- *Provide limited assistance in access to credit*, through guarantees when entering markets with political risk, and working capital for expansions (in line with international obligations).
- **Design domestic policies with the Asia-Pacific firmly in mind.** Domestic policies that are more similar to those in other countries will reduce transaction and information costs to doing business outward and inward. Regulatory harmonisation, adoption of international standards, and so on, should be consistently considered, although harmonisation might not always be best. In particular, ongoing moves toward creating a single economic market with Australia should be continued.
- **Reduce barriers to the development of future comparative advantage.** In agriculture, for example, effective management of natural resources (specifically greenhouse gas emissions and water) will be necessary to allow sustainable future growth.
- **Support flexible adjustment in the economy**, through a social safety net and opportunities for workers to re-skill as resource allocation in the economy shifts over time.

Policies that require international engagement and agreement

- **Improve market access for New Zealand firms**, through a mix of strong support for the multilateral WTO process, an active plurilateral and bilateral trade agenda, and proactive engagement in the emerging Asia-Pacific regional economic architecture.
- **Negotiate to assist development of future comparative advantage.** A fair post-Kyoto framework would have wide inclusion of countries and gases, with more recognition of the relative inability to reduce emissions in agriculture in particular.
- **Work towards regulatory compatibility and international standards.** Behind-the-border barriers from non-harmonised regulatory regimes impose additional costs, so New Zealand can work towards regulatory harmonisation and international adoption of agreed standards. In some areas, New Zealand may have an interest in helping develop standards.
- **Be prepared to counter negative perceptions.** Influencing perception of New Zealand products abroad could reduce the threat of protectionist backlashes and positively influence views about New Zealand products. Countering claims about 'food miles' could be one example.

Table 2 – Summary of the different types of trade costs

Type	Component	Description
Geographic	International freight	Air/sea transport (financial and time).
	Logistics and distribution	Domestic freight logistics and retail/wholesale distribution (financial and time).
	Communication	Telecommunications and face-to-face contact.
Administrative	Border costs	Customs, air/sea ports (financial and time). Tariffs.
	Foreign currency	Hedging short-term exchange rate volatility. Generally higher costs from medium-term exchange rate cycles. Broad transaction costs from different currency (changing foreign exchange, changing prices, etc.).
Cultural	Language	Communicating in a foreign language.
	Unfamiliarity	Unfamiliarity with cultural norms or business norms.
	Preferences	Biases or preferences of foreign customers to do business with firms in their own country.
Information	Market knowledge	Information about the market, the relevant contacts, the networks and relationships necessary to doing business, the prospective customers or business partners, etc.
	Institutional settings	Understanding the host country legal, financial, and tax regulations and standards.

Table 3 – Indicators of ease of trading across borders: comparison with other countries.

Index	Ranking	Criteria
World Bank: World Trade Indicators	17th/125 countries (2008)	Average applied tariff level
World Bank: Ease of Trading Across Borders	23rd/ 181 countries (2009)	Cost, time and number of documents necessary to import/export goods
World Bank: Logistics Performance Index	19th/ 150 countries (2008)	Survey data about perceptions of factors such as the quality of customs and border procedures, transportation and IT infrastructure.
World Economic Forum: Global Enabling Trade Report	10th/ 118 countries (2008)	Measures facilitating trade, including market access, border administration, transport and communications infrastructure, and the business environment
OECD: Total trade barriers	18th/ 26 countries (2004 and 2006) 3rd /26 countries (tariff level) (2006) 21st/ 26 countries (non-tariff barriers) (2004)	Average tariff and non-tariff barriers, including customs procedures and technical requirements

Flows of ideas

Link to economic growth

Technological change is at the core of all theories of economic growth. Knowledge allows the possibility of producing increasing output with the same inputs: increasing returns to scale.

Ideas can be thought of as embodied or disembodied. Embodied ideas can be transferred in the form of trade, capital and people flows. Disembodied ideas require a lower level of interaction to be transferred; that is, they do not require trade, capital or more permanent movement of people. These 'pure' ideas can be acquired through research-related networks, including research exchanges, student movements, joint research ventures and technology agreements, or firm-related networks, including business and professional networks, demonstration firms, government sponsorship of collaboration and business exchanges.

99.8%

Proportion of OECD R&D
that is performed outside
New Zealand

Source: OECD

Disembodied knowledge is still likely to require some interaction. The partially codified nature of ideas suggests that some interaction is required in order to effect its full transfer.⁸⁹ Electronic and face-to-face contact both facilitate the transfer of information.

Knowledge created abroad is an important source of ideas. Greater openness to countries with large stocks of knowledge helps generate productivity growth in the home country.⁹⁰ For New Zealand, this is particularly important given that almost all new ideas will be generated overseas.⁹¹

R&D is an important precursor for absorbing foreign knowledge. As well as being an important driver of knowledge creation, R&D helps to facilitate knowledge absorption: carrying out R&D within a firm (or within a country) leads to greater awareness and understanding of external knowledge, and also increases the capability to apply this knowledge.⁹²

Distance is a barrier to knowledge transfer. Technology diffusion appears to be greater within countries than between countries.⁹³ One study

⁸⁹ Gaspar and Glaeser (1998) argue that electronic and face-to-face contacts may be complements. As electronic transfer of information increases, the demand for face-to-face contact will also increase to support the transfer of information.

⁹⁰ Coe and Helpman (1995)

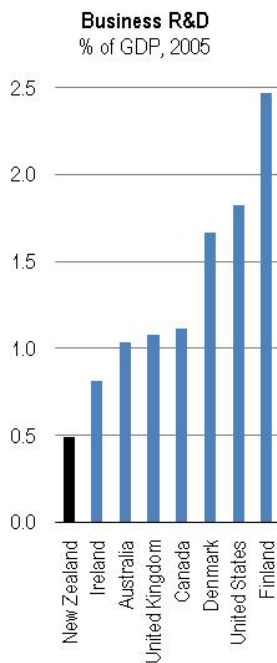
⁹¹ For example, Hall and Scobie (2006) found that "foreign knowledge is consistently an important factor in explaining the growth of productivity", though "having a domestic capability that can receive and process the spill-ins from foreign knowledge is vital to capturing the benefits".

⁹² Griffith et al (2004) describes this as the 'two faces of R&D'. Blakeley et al (2005) provide a general summary of the literature on the economics of knowledge.

⁹³ See, for example, Eaton and Kortum (1999), Jaffe et al (1992).

suggests the effect of distance is so strong that Australia would benefit very little from technology created in Western Europe and America.⁹⁴ This effect occurs because knowledge is usually not fully codified: it requires some form of interaction in order to be fully diffused. To the extent that distance acts as a barrier to trade, capital and people flows, it will reduce New Zealand's ability to access the knowledge embodied in these flows. However, the barrier may be less observable: if research and firm related networks are more difficult to set up and maintain due to New Zealand's relative geographical isolation, then disembodied knowledge flows may be inhibited.

Imports and FDI are important sources of knowledge, as too are migrants although the evidence is less clear. As discussed earlier in this paper, imports and FDI are important channels for accessing foreign knowledge, whereas the evidence is much weaker for the existence of export and ODI knowledge spillovers. It also seems likely that migration has the potential to introduce new ideas and working practices and build linkages with other countries, but the evidence to date is limited.



Source: OECD

New Zealand's current performance

How open?

Distance from the sources of knowledge represents a barrier. New Zealand's geographical distance from sources of knowledge in Europe and USA probably dampens the transmission of ideas. The greater the degree to which a specific technology is non-codified, the more face-to-face contact will be required in order to transfer the technology. If distance inhibits the opportunities that New Zealand firms and organisations have to interact with foreign entities, it will reduce the flow of tacit information.

Barriers to sources of embodied knowledge in imports, FDI, and migration are generally low. As discussed earlier in this paper, formal barriers to both imports and FDI are low, and migration settings select for high-skill migrants.

Intellectual property rights put relatively more weight on the users of new knowledge than most OECD economies. Intellectual property rights aim to strike a balance between allowing the creator or discoverer of new knowledge to appropriate the benefits and allowing for the diffusion of new ideas. There are good reasons for New Zealand, as largely a technology follower, to strike a different balance than other OECD economies between the rights of intellectual property holders and users, to allow knowledge codified in patents created abroad to be used in New Zealand at low cost.

⁹⁴ Keller (2002)

How well connected?

No complete measure exists, so flows of ideas have to be inferred. By its nature, knowledge is difficult to pin down, so the measures discussed here are necessarily imperfect.

Domestic R&D is relatively low. R&D as a proportion of GDP is roughly half the OECD average, and business R&D about a third. R&D funded from abroad is also slightly below the OECD average.⁹⁵ To the extent that low R&D is illustrative of New Zealand's innovation system as a whole, it may imply that New Zealand has a low level of adoption of international knowledge.

Sources of information for innovation tend to be business links rather than institutional links. Survey evidence suggests New Zealand's overall innovation rate is not sub-standard, but international comparisons are difficult to make. The sources of information for innovating businesses appear to be predominantly existing staff, new staff, and customers.⁹⁶ These results suggest businesses generally gain information from their day-to-day activities, rather than links with, say, institutions such as universities and CRIs. One implication is that it underlines the importance of general business international connections to tap into knowledge created abroad.

Payments for technology created abroad seem reasonably high. The OECD constructs a 'technology balance of payments' to measure disembodied idea flows. On this metric, New Zealand performs quite well, with relatively high payments being made for foreign knowledge, though the measure appears to be somewhat volatile over time, and New Zealand remains well below many other small advanced economies.⁹⁷

Potential adverse consequences

Technological change is likely to exacerbate inequality. As discussed earlier (pages 7 and 29), technology appears to be the largest driver of increasing inequality. An 'hour glass' economy is emerging in many developed economies, characterised by rising relative demand for well-paid skilled jobs and for low-paid least skilled jobs and falling relative demand for those jobs 'in the middle'. This is occurring because technology can substitute for human labour (or can facilitate the outsourcing of it) in jobs like craft manual jobs and book-keeping jobs that require precision and hence are not the least skilled jobs in the labour market.

Consequently, maintaining social safety nets and ensuring good social mobility, so all New Zealanders can achieve their potential, are likely to be

⁹⁵ See, for example, Figures 3.13 and 3.24 of MED et al (2007).

⁹⁶ Statistics New Zealand (2007d)

⁹⁷ See OECD (2007c).

important policy goals. In addition, education becomes even more important to raise skill levels to allow all New Zealanders to take full advantage of the pace of technological change and lower the tendency toward inequality.

Future outlook

The fast pace of change is likely to continue. As discussed earlier, the pace of technological progress is likely to continue, resulting in greater gains from international connections and higher risks should New Zealand fail to provide an environment conducive to knowledge creation and acquisition.

Ideas may increasingly come from Asia. The UK, USA, and Europe are traditional sources of new knowledge. Increasingly, however, firms and sectors in expanding Asian economies will be at or near the technology frontier, creating an additional source of ideas relevant to New Zealand.

General policy lessons

Policies that can be made unilaterally

Encourage inward flows of trade, people, and capital to capture embodied ideas. Knowledge is embodied in imports, immigrants, and inward investment. Knowledge can also be obtained through exports, emigrants, and outward investment, but the evidence suggests these effects are much weaker than inward flows.

Create a well-functioning innovation system. Ideas can be transferred through absorption and adoption by the domestic economy:

- *Encourage business R&D to increase absorptive capacity.* Undertaking R&D helps provide the ability to access knowledge from overseas.
- *Provide some public funding streams that incentivise international knowledge transfer.* The research system should explicitly acknowledge the important role of foreign knowledge and encourage transfer to domestic circumstances. At the margin, this may mean a trade-off between original research and the adoption and adaptation of foreign research.
- *Consider a specific function by a public agency to promote international knowledge transfer.* A number of countries use policies that assist firms and industries to locate, transfer and absorb new knowledge from overseas, such as through information and network facilitation, or co-funding R&D.

Design intellectual property rights to reflect New Zealand as largely a technology follower. Encouraging innovation, especially in areas of comparative advantage, suggests ensuring sufficient incentives to the holders of intellectual property. But as largely a technology follower, there are strong arguments for New Zealand to strike a balance in rights closer to the users of intellectual property relative to other OECD countries.

Discussion

The idea that international connections could provide substantial benefits arguably started with David Ricardo's original theory of comparative advantage and gains from trade in 1817. Economist Paul Krugman has referred to this theory as 'Ricardo's difficult idea'.⁹⁸

In this section, we discuss four areas where current thinking and approaches could be acting as barriers to fully realising the potential benefits from international connections. The following 'difficult ideas' are deliberately written somewhat provocatively, with the aim of encouraging greater debate among policy makers and the public more broadly.

Nationalistic tendencies?

In recent years, New Zealanders have expressed strongly held views that lean against international integration in a number of areas. Some examples include foreign investment, particularly in assets considered 'sensitive'; foreign ownership of land; high flows of immigration, particularly from Asia; high flows of emigration, particularly to Australia; and offshoring of manufacturing production.

New Zealanders' views on international connections could be preventing policy changes that would improve economic performance.

New Zealand consistently argues for other countries to break down their barriers on New Zealand's exports, but in many areas New Zealand can itself be relatively protectionist.⁹⁹

A shift in the New Zealand psyche that sees international connections as more of an opportunity than a threat would no doubt provide support for changes in some policy settings that would improve international connections and, perhaps more importantly, support a culture that sees international integration as a success.

The key to unlocking such a change may be a more sophisticated public debate. When concerns that New Zealanders have are raised, the underlying issues should be teased out, brought into the open, and tested. In many areas, there are likely to be ways to address valid concerns and target them directly, without falling back on blunter instruments that may deter international connections generally.

The future is agriculture?

Agriculture has been at the core of New Zealand's international connections since the 19th century and it is one of the overriding features of

⁹⁸ Krugman (1996)

⁹⁹ A source of survey evidence is the IMD World Competitiveness Yearbook. For the question "Attitudes toward globalization are generally positive in your society", New Zealand scored 6.40 out of 10 in the 2008 yearbook, compared with 7.03 for Australia and 8.29 for Denmark.

New Zealand's 'brand' from an 'outside in' perspective. But the question is often raised: Is agriculture part of New Zealand's future?

The potential for agriculture as an area of future competitive advantage looks promising (see page 30).¹⁰⁰ Current economic thinking emphasises the importance of path dependence and building on traditional strengths,¹⁰¹ making economic development into higher value-added agricultural products a plausible future scenario. In addition, strong population growth in developing countries is likely to see strong demand for agricultural products over the next 10-20 years, and New Zealand's natural advantages in water will be sought after in a world of greater water scarcity.

Policy and other domestic settings could be preventing the agricultural sector from developing future competitive advantage.

On the other hand, competitive pressures are building, from South American countries in particular, and liberalisation of agricultural trade remains slow. Perhaps more importantly, there seem to be a number of domestic barriers to the sector realising its full potential. Environmental pressures are strong, from greenhouse gas emissions, water allocation, and water quality. These pressures matter both for the capacity to continue economic growth within environmental limits, and for market access, as sustainable modes of production are increasingly becoming the price of entry to developed markets, as well as some developing markets.

Industry structures potentially lean against dynamism and international expansion, notably capital and ownership structures and some competition settings. The farm-gate and short-term focused production model tends to limit longer term market signals from consumers through to producers. Innovation through biotechnology may be being hampered by a regime that in practice results in few developments of genetically modified and non-genetically modified new organisms.¹⁰² Despite the strong returns to R&D, the level of investment in the sector looks light. Complex Treaty of Waitangi issues run through many of these issues, which require time and dialogue to resolve.

In short, agriculture is likely to be one of several areas of importance to New Zealand's economy in 20 years' time, but the sector faces formidable challenges to achieving greater productivity and higher value-added. Current domestic settings could be hampering meeting those challenges.

¹⁰⁰ To be sure, other sectors are likely to be important to New Zealand too, such as the service sector, which is generally less affected by international transport costs than goods exports, for example.

¹⁰¹ Smith (2006) compares New Zealand with other natural-resource based economies such as Finland, Sweden, Norway, Denmark, Iceland, the Netherlands, Canada, and Australia, and discusses how their paths of economic development were based on innovation in their sectors of traditional strength.

¹⁰² Since the changes to the Hazardous Substances and New Organisms Act in the early 2000s, the number of outdoor approvals for genetically modified organisms (field trials and outdoor developments) has been either one or none each year. For the decade before the changes, approvals averaged about five per year. In contrast, use of genetically modified crops has been increasing in both developing and developed countries (ISAAA, 2008).

An international perspective in domestic policies?

When policy makers think of international issues, trade and investment policies tend to be the first reactions, particularly policies at-the-border. It is becoming increasingly clear, however, that domestic policies more broadly can have a pervasive impact on international connections. The discussion of agriculture above provides some concrete examples.

In recent years, the international furniture chain IKEA has been considering entering the New Zealand market. A new shopping centre was proposed in Auckland, in which IKEA would be a tenant. The Auckland City Council turned the proposal down, based largely on traffic concerns. The Environment Court overturned that decision, but put strict rules around it, explicitly excluding IKEA.¹⁰³

Decisions on a wide range of domestic policies indirectly influence international connections, but do not necessarily consider the international dimension.

From an international connections perspective, IKEA would be likely to bring a number of (mainly longer term) benefits to New Zealand, such as quality products for consumers, competition, pressure on vertical supply chain linkages, management expertise, and international experience. Other international firms may have noticed IKEA's negative experience.

The point here is that whether IKEA entered New Zealand did not depend on foreign investment screening or international transport costs, but rather on a string of domestic policy settings, including roading infrastructure, the Environment Court process, and the Council's approach to retail centres.

To take another example, the power blackout in Auckland in 2006 was the result of a low-probability equipment failure. International media coverage could, however, have had disproportionate consequences for perceptions of New Zealand's infrastructure and therefore investment attractiveness.¹⁰⁴ Would an international perspective suggest taking more account of low-probability, high-impact events in electricity transmission?

The implication of this discussion is that policy settings in all areas should consistently be taking an international perspective. When considering domestic business regulations, for example, policy makers should explicitly consider the relative restrictiveness compared with other countries, and how harmonised the regime is with international norms, with a high hurdle to having a significantly different type of regime.¹⁰⁵

¹⁰³ For example, see NZ Herald article 7/2/08, "Ikea not coming - because they'd be too popular", http://www.nzherald.co.nz/section/3/story.cfm?c_id=3&objectid=10490969.

¹⁰⁴ Work by a Treasury summer intern (Duncan, 2009) investigated international surveys and found that subjective measures tended to be worse than measures based on hard data.

¹⁰⁵ It is being increasingly recognised (e.g. Kox and Nordás, 2007) that there are effectively two main dimensions for comparing domestic regulatory regimes with other countries': the level of *restrictiveness* (i.e. whether the regulation in New Zealand is tighter or looser than international norms), and the degree of *harmonisation* with international norms (i.e. how similar or different the general structure of New Zealand's regulatory settings are from international norms). The additional costs imposed by significantly different regimes suggest a high hurdle should be placed on differentiation from international norms.

Taking labour mobility seriously?

The traditional way of thinking about migration is that people leave or come to New Zealand permanently. But increasingly, mobility will take the form of temporary, or circular, migration, where people may leave for a number of years, and then return later or move on to another country.

Trends towards greater global mobility of skilled labour and circular migration challenge some domestic policy settings.

Overall global mobility is also increasing, especially for skilled talent. The trans-Tasman labour market is effectively a single labour market, and people will increasingly move freely between Australia and New Zealand, perhaps several times over a career.

Greater mobility and the trend to circular migration have potentially far-reaching implications for thinking about domestic policies. Some areas that could be worth investigating are:

- New Zealand collects a large portion of tax revenue from a tax base (labour) that is increasingly internationally mobile. Should New Zealand consider shifting over time to a less mobile tax base?
- New Zealand currently subsidises tertiary education when students are young and relatively immobile, and then taxes graduates relatively heavily when they are skilled and internationally mobile. How large are these effects and are there alternative ways to set up the incentives?¹⁰⁶
- Young New Zealanders often gain qualifications and then leave for their 'OE'. Denmark, for example, puts greater weight on studying abroad through scholarships, and then returning to Denmark. Are there ways New Zealand could incentivise a 'studying OE'?
- Public services are funded on the basis of public benefits, but these benefits may be less likely to occur with a more mobile population. Are there areas of policy, such as education or superannuation, that may need to be reconsidered in the future?
- New Zealand's diaspora is among the largest in the OECD. Is New Zealand keeping in touch with and making the most of its diaspora, particularly since some will be interested in returning to New Zealand in the future?

¹⁰⁶ For example, Andersen (2005) argued that lowering of taxes on (skilled) mobile workers and reduced educational subsidies would lower emigration of skilled workers and still maintain educational incentives. Also note that student loan repayments increase the effective marginal tax rate faced by graduates by 10 percentage points, though there overall is only weak evidence that student loans influence people to go overseas (Smart, 2006).

Conclusion

This paper has described how and why international connections are important for New Zealand's productivity and economic performance, and has set out some general lessons for policy making. The paper has considered each of the four resource flows in turn, and then discussed some cross-cutting themes that may require a more fundamental change in how to think about New Zealand as part of the world economy.

In conclusion, we look across the four types of flows and distil:

- the main channels through which international connections can drive productivity and economic growth; and
- broad areas for grouping policy priorities, and some more specific suggestions for policy attention.

Links to productivity and economic growth

International connections provide economic benefits to New Zealand through resources, specialisation, knowledge, and competition.

The main channels can be summarised as follows:

- **Resources.** New Zealand can gain access to resources that facilitate higher productivity: skilled talent, foreign capital to overcome the domestic saving constraint, and international goods and services, both final products and intermediate inputs.
- **Specialisation.** A central part of a country's economic development is specialising in areas of comparative advantage, by exporting in those areas and importing in others. Part of these gains comes from overcoming the domestic market to achieve economies of scale, a particularly important aspect for a small country.
- **Knowledge.** Perhaps the most important part of international connections is the ability to access international knowledge. Technological change is at the heart of the dynamic process of economic growth. Most of global technological change happens overseas, and New Zealand needs to tap into that knowledge, and adapt it to domestic circumstances, through technology-embodied imports, the expertise and skill that accompanies foreign capital, and the ideas and connections that flow from interactions between residents, migrants, students, researchers, tourists, and the diaspora offshore.
- **Competition.** Competition provides stimulus for change. It helps resources flow to areas of comparative advantage, and in itself it can stimulate innovation through the need to perform. Imports, foreign investment, and immigration all provide competition, which is low in New Zealand relative to larger countries, given the small domestic market.

Broad priority areas

Three main areas of focus to improving New Zealand's international connections are discussed below, in order of importance, and more specific suggestions for consideration are set out in Table 4.

Domestic policy settings

Domestic policy settings are critical to making the most of international opportunities.

Policy settings across the board can affect international connections, even those that on face value seem intrinsically domestic. With low obvious policy barriers to deepen integration at the border, these domestic policy choices are likely to be where most gains are possible.

Themes with a specific international dimension include facilitating the development of future comparative advantage, ensuring New Zealand is a competitive location for people and capital, and maximising opportunities to capture economic benefits from our existing resources.

Regional economic integration

New Zealand should aim to be an integral part of an Asia-Pacific regional economic market.

New Zealand's longer-term objective should be to be an integral part of an Asia-Pacific regional economic market. Flows of trade, capital, ideas and people flows are already strong with Australia, Asia, and the US. But these relationships are likely to increase in importance as the weight of global economic activity increasingly shifts towards Asia. Our participation in regional economic integration will be critical for New Zealand's prospects.

Relationships with countries that have been historically important to New Zealand, such as the UK and other European countries will continue to be important in some areas, such as to access ideas and technology.

Barriers at the border

Further reducing barriers at the border would support greater economic integration.

New Zealand's formal restrictions on international flows are generally low, and other at-the-border policy settings compare reasonably well internationally. On the other hand, New Zealand's distance from markets sharply reduces our connections with the rest of the world.

Given the importance of international connections to New Zealand, the costs of both inward and outward flows should be as low as possible, within the constraints of achieving other government objectives.

Table 4 – Priority areas for policy attention.

<p>1. Domestic policy settings are critical to making the most of international opportunities.</p> <p>Unilateral policies</p> <p>Ensure tax and regulatory settings encourage entrepreneurial and innovative activity to be located in New Zealand, such as shifting the tax base over time away from internationally mobile bases (e.g. income, profits) towards immobile bases (e.g. land, consumption).</p> <p>Dampen exchange rate cycles to facilitate development of the tradeable sector, by reducing the risk of pro-cyclical fiscal policy and maintaining a sustainable, predictable and smooth medium-term adjustment path.</p> <p>Develop a more integrated approach to international flows of people that includes domestic policies as well as at-border controls, and covers emigration and immigration, international students and New Zealanders studying abroad, and links between international researchers and businesses.</p> <p>Reduce barriers faced by New Zealand firms doing business abroad through a more effective offshore presence.</p> <p>Maintain a well-functioning innovation system that facilitates international knowledge transfer, with continued support for private sector R&D and more use of public sector institutions to access international knowledge.</p> <p>Allocate natural resources more efficiently to support development and investment in sectors that use water as an input in production, and produce carbon as a by product of production.</p> <p>International engagement</p> <p>Argue for a fair post-Kyoto framework, including wide inclusion of countries and gases, with more recognition of the relative inability to reduce emissions in agriculture in particular.</p>
<p>2. New Zealand should aim to be an integral part of an Asia-Pacific regional economic market.</p> <p>International engagement</p> <p>Maintain a clear strategy for engagement in the Asia-Pacific region, working with Australia in areas of common interest, and taking opportunities when they arise to promote regional economic integration, both at- and behind-the-border.</p> <p>Continue moves towards a single economic market with Australia as part of the wider aim, through ongoing incremental improvements over time.</p>
<p>3. Further reducing barriers at the border would support greater economic integration.</p> <p>Unilateral policies</p> <p>Phase out all remaining import tariffs. Import tariffs are already low, meaning direct economic benefits from further reductions are relatively low, but the signalling benefits to investors and traders could be more important (i.e. “no tariffs to worry about”).</p> <p>Remove investment screening, or improve the screening regime. As a first best, New Zealand should not screen investment based solely on the fact that the investor is not a New Zealand citizen. As a second best, any screening regime should be as low cost as possible and provide certainty and predictability to investors.</p> <p>Reduce costs of ports and customs. New Zealand needs to have low-cost border control, relative to trading partners and competing economies, while providing security. New Zealand also needs to have low-cost customs for travellers and migrants, while protecting security interests. International air and sea ports need to be as productive and low cost as possible, making ownership, competition, investment, scale, and regulatory structures highly important.</p> <p>Ensure high-speed, low-cost broadband is available for business. As trade in services increases over time, low-cost communication will be essential. Government should focus primarily on reducing costs for businesses.</p> <p>Reduce the cost of international capital. Access to foreign capital comes at a premium, reflecting, among other things, additional risk caused by New Zealand’s high level of international indebtedness. Government should continue policies to encourage saving, and keeping Crown debt at prudent levels.</p> <p>International engagement</p> <p>Negotiate hard for market access in multilateral, plurilateral, and bilateral forums, since high tariffs and other barriers, particularly faced by our agricultural exporters and higher value-added goods and services, are likely stifling New Zealand’s economic development.</p>

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