

PSC

Population Studies Centre

DISCUSSION PAPERS

No 68 June 2008

International Trade Negotiations and the Trans-Border Movement of People: A Review of the Literature

**Anna Strutt
Jacques Poot
Jason Dubbeldam**



**The University of Waikato
Te Whare Wānanga o Waikato
HAMILTON NEW ZEALAND**

The Population Studies Centre (PSC) was established at the University of Waikato in 1982.

POPULATIONS STUDIES CENTRE DISCUSSION PAPERS are intended as a forum for the publication of selected papers on research within the Centre, for the discussion and comment within the research community and among policy analysts prior to more formal refereeing and publication.

Discussion Papers can be obtained in pdf form from the centre's website at <http://www.waikato.ac.nz/wfass/populationstudiescentre>

Any queries regarding this report should be addressed to Jacques Poot, Professor of Population Economics, Population Studies Centre University of Waikato, Private Bag 3105, Hamilton, e-mail jpoot@waikato.ac or Ph +64 7 838 4685

The views expressed in this report are those of the authors and do not reflect any official position on the part of the Centre.

© Population Studies Centre
The University of Waikato
Private Bag 3105
Hamilton
New Zealand
www.waikato.ac.nz/wfass/populationstudiescentre
psadmin@waikato.ac.nz

ISBN: 1-877149-72-1

International Trade Negotiations and the Trans-Border Movement of People: A Review of the Literature

**Anna Strutt
Jacques Poot
Jason Dubbeldam**

Abstract

We review the international and New Zealand literatures on the two-way interaction between international migration and agreements designed to enhance cross-border trade or investment. Benefits and costs of migration, to the extent that these may feature in trade and migration negotiations, are discussed. While trade and migration can be substitutes in some contexts, they will be complements in other contexts. Liberalisation of services and the movement of people are likely to offer much more significant gains than liberalisation of remaining barriers to goods trade. Significant scope for liberalisation under GATS mode 4 (the movement of natural persons) may remain. However, temporary migration is already promoted on a unilateral and bilateral basis within immigration policy frameworks that may provide greater flexibility than GATS mode 4. With respect to both trade and migration, the more diverse the exchanging countries are, the greater the economic benefits tend to be. However, greater diversity may also imply greater social costs. This paradox of diversity needs to be addressed through appropriate social policies accompanying enhanced temporary and permanent migration.

Keywords: international trade, migration, outsourcing, temporary workers, e-labour, GATS, negotiation

JEL Classification: D60, F13, F15, F22, F51

Acknowledgements

This literature review was commissioned by the Workforce Research and Evaluation section of the New Zealand Department of Labour. We would like to thank Ruth Wallis for initiating the project and for her input during the first stage. We also benefited from comments from Yan Flint, Rob Hodgson, Christine Hyndman, Vasantha Krishnan and Dirk van Seventer.

Table of Contents

Abstract	i
Acknowledgements	i
Table of Contents	ii
List of Figures	ii
List of Tables	ii
Executive Summary	iii
1. Introduction	1
2. Migration linked to international trade agreements.....	4
2.1 The WTO agreements.....	5
2.2 The NAFTA and EU agreements	7
2.3 New Zealand's current trade agreements	9
2.4 New Zealand's anticipated trade agreements	16
2.5 Summary of agreements	17
3. The impact of trade on migration	17
3.1 Goods trade and migration	18
3.2 Services trade and migration	22
3.3 Migration and new technology	24
3.4 Foreign direct investment	26
3.5 Bilateral negotiations in theory	26
4. The impact of migration on trade	28
4.1 Immigrants and trade	28
4.2 Migration induced tourism	30
4.3 Migration induced exports of educational services	31
5. Benefits and costs of migration	32
5.1 Brain drain or circulation?.....	34
5.2 Wage and employment effects	36
5.3 Source country impacts	37
5.4 Host country impacts	38
5.5 Maximising the benefits and minimising the costs of migration	38
6. Lessons for New Zealand	40
6.1 The impact of trade and FDI on migration	40
6.2 The impact of migration on trade and FDI.....	42
6.3 Benefits and costs of migration	43
6.4 Gaps in the literature and potential areas for future research	44
7. Conclusion	46
References	49

List of Figures

Figure 1. Intersecting policy contexts	3
--	---

List of Tables

Table 1. Examples of the four modes covered by GATS	6
Table 2. Current trade agreements	11
Table 3. Consensus economic benefits and costs of immigration	33

Executive Summary

- [1] In recent decades, the world has witnessed greater cross-border integration through increased trade in goods and services, foreign direct investment, financial flows and international migration. These flows have been facilitated through lower transportation costs, rapid information and communication technology developments and the removal of barriers by governments.
- [2] Of all cross-border interaction, the movement of people for temporary or permanent settlement remains the most restricted. This is understandable because the consequences of the movement of people are broader and more complex than those of the exchange of physical goods, cross-border service supply or financial flows.
- [3] This report reviews the international and New Zealand literatures on the interaction between enhancing cross-border trade and investment, through negotiations and agreements, and international migration. There is a two-way interaction: increased trade will affect migration and increased migration will affect trade. Both directions of this two-way interaction are reviewed in the report. The report also briefly reviews the benefits and costs of migration to the extent these might feature in trade and migration negotiations. The extent to which lessons for New Zealand can be drawn from the international literature is assessed.
- [4] International migration flows are becoming more complex. While income and job opportunities remain important determinants, people may move abroad for other than economic reasons, and their migration may be permanent, or temporary. Return and repeated migration are becoming increasingly common. Both migrants and host countries may benefit from 'work to residency' policies in which migration for a limited term of employment is followed by the right of permanent residency.
- [5] Trade, immigration, labour market and social policies overlap. Trade officials need to consider immigration and labour market perspectives, while immigration and labour policy officials need to pay attention to trade policy issues. Firm policy guidelines and cross-departmental coordination appear essential.
- [6] The report reviews World Trade Organisation (WTO) agreements and regional agreements relevant to New Zealand. In the WTO framework for trade negotiations, only mode 4 of the General Agreement for Trade in Services (GATS) is directly concerned with the cross-border movement of people to carry out services abroad. Within the GATS, this is referred to as the 'movement of natural persons'. This is defined as temporary movement only, in which temporary is not further specified.
- [7] Trade liberalisation of the service sector could offer even more significant gains than liberalisation of international goods trade. Trade in services cannot prosper if the movement of people is not promoted. The main barriers to trade in services under mode 4 of GATS are: immigration policy and social security issues;

potential discriminatory treatment of foreign providers of services; and inadequate recognition of qualifications.

- [8] There is broad agreement in the literature that the wording of GATS, especially mode 4, is rather vague. Although mode 4 is potentially ambitious, relatively few commitments to open markets have been made. The actual temporary migration policies of countries tend to be more open than their potential GATS commitments. This is also the case in New Zealand. While the international movement of 'natural persons' for the provision of services abroad is likely to increase in the future, this will take place irrespective of whether such movement is negotiated under GATS mode 4 or not.
- [9] GATS is unlikely to have a major impact on immigration policy for several reasons. Firstly, GATS is only concerned with temporary movement. Secondly, the most favoured national (MFN) clause is unlikely to be acceptable to countries in this context. Under MFN, discrimination between trading partners is not allowed and any favourable concessions granted must be extended to all WTO members. Thirdly, once agreements are made these are difficult to reverse and countries will wish to maintain flexibility to adjust future immigration policy in response to changing domestic conditions.
- [10] Developing countries may seek access to New Zealand's labour market as a condition for opening their own markets to goods trade and professional services supplied by New Zealanders. Such negotiations are more likely on a bilateral than multilateral basis.
- [11] Countries such as New Zealand already impose few barriers on the short-term movement of business people. The establishment of 'offshoots' of foreign services providers under GATS mode 3 is likely to trigger an associated need for temporary migration of intra-corporate transferees. Again, existing arrangements already accommodate such movement, so that GATS mode 4 is not essential to negotiation in this context.
- [12] International trade in goods or services, or the movement of factors of production other than labour, may be able to substitute for the movement of people. However, there are also plausible economic theories that suggest that migration and trade are complements. Similarly, foreign direct investment (FDI) can be a substitute or a complement to migration. In the short-run it is likely to be a substitute and in the long run a complement to migration.
- [13] In recent years, there has been rapid growth in outsourcing of services. The main benefit is the wage differential between developing and developed countries in the cost of skilled labour. Outsourcing leads to a redistribution of job opportunities and income, but the impacts of outsourcing vis-à-vis immigration have yet to be assessed. A specific form of outsourcing that is growing rapidly is e-labour: internet-based knowledge-intensive services exported by low wage countries.

- [14] Trade facilitation involves the recognition and reduction of trade barriers, including barriers due to a range of different standards and requirements. It can be argued that trade facilitation is a substitute for migration.
- [15] Immigrants foster international trade through their demand for home country outputs and through their ability to facilitate trade between the host and home countries. Migrant networks are important in this context. The impact of immigration on exports is less than the impact on imports.
- [16] Migration stimulates the export of tourism services. In addition, tourism growth is often seasonal and leads to a greater demand for temporary migrant workers. There is also likely to be an impact of immigration on the export of educational services, but this impact has yet to be quantified.
- [17] The report reviews costs and benefits of immigration that trade negotiators may take into account when considering migration concessions. Migration enables human resources to locate to where they are most productive. The migrants benefit from this (through higher incomes), the sending countries benefit (through remittances and also perhaps through increasing the marginal product of labour and therefore wages of those left behind) and the receiving countries benefit (through the so-called immigration surplus that accrues to the owners of capital and the workers with skills complementary to immigrants).
- [18] While sending and receiving countries benefit in aggregate, there will be a redistribution of income that will make some people better off and others worse off. The distributional impact of immigration may be much larger than its net aggregate impact. This explains why it is very difficult to reach a political consensus on immigration. Nonetheless, meta-analysis shows that any adverse impacts of immigration on wages and employment of the host population are likely to be very small.
- [19] Developing countries are concerned about a 'brain drain' of highly skilled workers and there is some empirical evidence of significant adverse brain drain impacts. If a brain drain problem exists, then this can be alleviated by embracing the 'brain circulation' concept. This requires a commitment of sending and receiving countries to facilitate temporary movement of highly skilled workers. Countries such as New Zealand may be attractive destinations for hosting foreign 'talent' through offering a high quality of life.
- [20] There exist a number of ways to help maximise the benefits and minimise the problems caused by the trans-border movement of people. Besides benefits to both host and source countries from temporary migration of highly skilled or seasonal workers, it has also been argued that in the case of permanent immigrants, there may be benefits from applying some kind of 'tariff' (i.e. a tax or social security differential, or entry fee).
- [21] Historically, immigration of workers into import substitution industries may have substituted for New Zealand imports that faced tariff and quota barriers. In recent years, immigration, emigration (specifically to Australia) and international trade are likely to have been complements. An expansion of

temporary work policies will have economic benefits for New Zealand and its trading partners.

- [22] More rigorous studies of the relationships between trade and foreign direct investment and patterns of international migration are needed. Extending the global trade models to cover negotiations and scenarios of particular interest to New Zealand, would be very useful. Also, the relative benefits and costs of outsourcing and immigration should be compared.
- [23] The most rapid growth in international labour movement in the years to come is likely to be that of temporary labour movement. This development is encouraged from the perspective of immigration policy as it provides more flexibility and effective pathways to subsequent permanent settlement. The likelihood that further temporary movement agreements would be negotiated under GATS mode 4 is still to be investigated further, but existing arrangements already impose few barriers on business and professional temporary movement, so that GATS mode 4 is not essential to negotiation in this context.
- [24] From a policy perspective, the linkages between migration, foreign investment and trade cannot be fully addressed within a purely economic framework. The report highlights the paradox of diversity. Economic benefits of opening up borders to trade or immigration are at their largest, the more different the countries are. In addition, greater labour mobility helps to facilitate trade and increases the cross-border demand for domestic output. The nurturing of cultural diversity may further enhance trade. However, social cohesion and the accumulation of social capital are not natural outcomes in increasingly diverse societies, but require resources to be allocated to the promotion of desirable social outcomes. Thus, the social evaluation of greater cross-border mobility resulting from greater international economic integration must go hand in hand with the economic assessment.

1 Introduction

In recent decades the economic integration of countries has intensified considerably. Large increases in international trade, foreign investment, information exchange and communication, diffusion of technologies, and a growing cross-border movement of people are the main forces of this globalisation. Of course the world has experienced earlier waves of globalisation, but with respect to people movement there is a big difference. During the previous epoch of globalisation of the late 19th century (e.g., Williamson, 1996), visas and work permits were not required for most movements of people between countries and for the employment of foreigners (Ng and Whalley, 2005). In contrast, the present epoch coincides with persistent control of international movements. While mobility of the highly skilled and within economically integrated areas is facilitated, countries try to keep out what are considered to be undesirable immigrants, given perceived negative economic and social impacts and, more recently, given growing security concerns.

Of course it can be argued that, prior to 1913, the relatively high costs of travel and communication acted as natural barriers to the movement of people. As these barriers have diminished over time, increased regulation has attempted to strengthen sovereignty and reduce the perceived costs of a large influx of foreigners on host populations. However, barriers to international migration tend to be much higher than barriers to trade. Since the 1960s, the increase in the worldwide ratio of immigrants to population has been relatively modest (notwithstanding a large increase in the number of immigrants in some countries), while the ratio of imports to GDP has doubled (Hatton, 2007). This report is concerned with the growing tension between the benefits of growing economic integration of markets for goods, services and capital and the commensurate need for greater cross-border movements of people.

Traditionally a distinction is made between migration, defined as a permanent or long-term change of residence (12 months or more), and temporary movement of people. This distinction is becoming increasingly blurred as migrants may continue to travel internationally and maintain strong links with their home country (e.g., McCann and Poot, 2008). They may also be employed under temporary work policies extending over more than twelve months, or have an intention to migrate again to another destination, or back home. Conversely, short-term visitors may become migrants after some time in the host country for business, education, or a working holiday. In New Zealand, most of the principal applicants approved for residence had work, study or visitor permits in the past.¹ Hugo (1999) refers to the greater complexity and fluidity of types of international movement as a new paradigm of migration. In this survey of the literature, we consider this paradigm in the context of the links between migration and international trade in goods and services.

Migration and trade policies are generally not well integrated at present: they tend to be designed and negotiated by government agencies with differing areas of focus and concern. However, neglecting to coordinate these policies can create problems (Keely, 2003). For example, granting concessions to foreigners to provide services domestically may be a useful negotiating position in trade talks, but it may not link well with the assessment of labour market shortages that may guide immigration

¹ The Department of Labour 2005/06 report on migration trends notes that 87 percent of principal applicants approved for residence that year had previously held a temporary visitor, student, or work permit. Moreover, approximately 30 percent of work permit holders and 20 percent of international students gain permanent residence within five years of being issued their first permit (Department of Labour 2006, p.1).

policy. Unlike the case of international trade, where the World Trade Organisation (WTO) offers a multilateral forum for negotiations, no comparable institution exists for negotiations on the permanent and long-term migration of people.

Pasquetti (2006) argues that such an institution is now needed in economically integrated areas such as the European Union, where labour mobility among member states is unrestricted. In such a situation, it is clearly important that governments impose the same restrictions on migration from outside. This is also relevant in the case of Australasia where the Australian government believed that lesser immigration requirements in New Zealand led to a considerable flow of ‘backdoor’ migration to Australia of immigrants to New Zealand who, after obtaining New Zealand citizenship, benefited from unrestricted trans-Tasman migration to Australia. This was one trigger for removing in 2001 eligibility for some types of social security in Australia to new ‘special visa’ holders from New Zealand. Poot and Sanderson (2007) found that this policy change did reduce ‘backdoor migration’ to some extent.

Pasquetti (2006) argues that multilateral international regulation is also necessary at a global scale, i.e. a case can be made for a ‘World Migration Organisation’ (WMO) alongside WTO. While there are already two International Labour Organisation (ILO) Conventions on migrant labour (dating back to 1949 and 1975) and a 1990 United Nations (UN) Convention on the rights of migrant workers and their families, these conventions are generally seen as benefitting sending countries rather than host countries and have consequently only been ratified by a limited number of primarily sending countries. In general, countries are free to set immigration policy as ‘...an accepted exercise of national sovereignty’ (Freeman, 2006a). Therefore almost all countries impose barriers that significantly limit the opportunities for foreigners to reside permanently or long term within their borders.

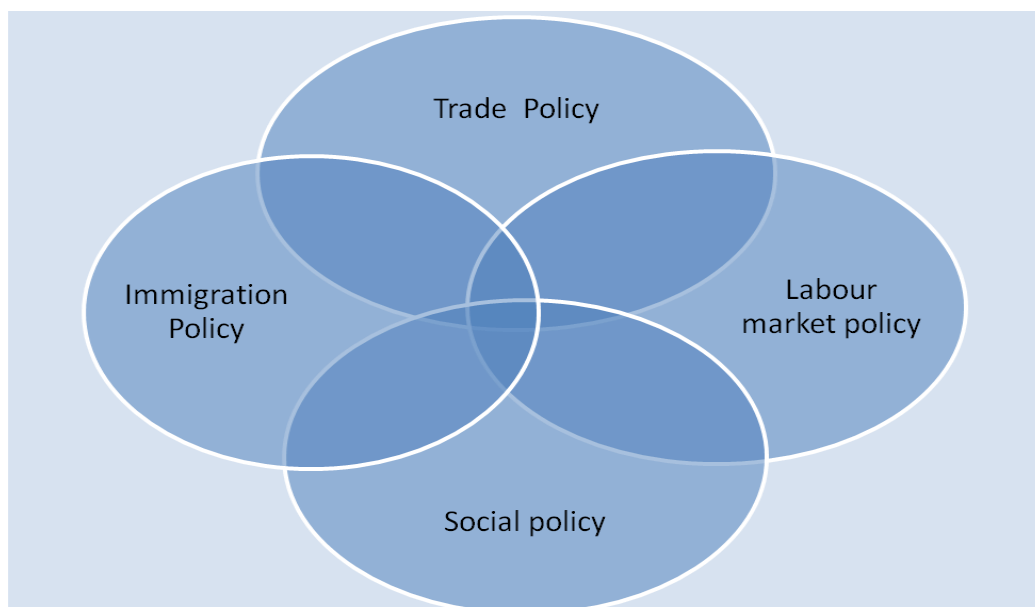
Migration policy intersects with trade policy at present only in terms of the temporary movement of persons to provide services abroad, such as covered by the so-called ‘mode 4’ of the General Agreement of Trade in Services (GATS) administered by the WTO. However, mode 4 has to date not yet facilitated a significant rise in cross-border labour movements (World Bank, 2006). The extent to which entry under agreements along the lines of mode 4 can substitute for, or complement, immigration policy in the future will be explored later in this report. We will argue that the scope for mode 4 to play a major role in immigration policy is limited.

The interaction between trade agreements and the movement of people appears likely to become increasingly important over time. This is in part because barriers to the settlement of people across international borders remain high, while barriers to international trade have been significantly reduced over time. Closer economic integration may coincide with the introduction of relatively free labour movement (such as in the European Union) or an open border for labour may precede economic integration (as in Australasia). In addition, the temporary movement of professionals working for trans-national corporations is already permitted in most countries. The increasing demographic pressure of high population growth in developing countries, combined with relatively low population growth and shrinking domestic workforces in rich countries, is likely to lead to greater incentives for people to migrate in coming decades, as well as pressure on governments by employers to accommodate such migration. The rapid growth in the number of opportunity-seeking young people in developing countries, along with large income gaps between countries and increasing demand for services in sectors such as aged care, domestic services, cleaning and tourism, make migration an increasingly significant labour market issue (World Bank, 2006). In addition, large diaspora created by migration surges since the 1980s, with

some 200 million people now living outside their county of birth, have helped to reduce the costs and risks of migration of those considering a move in the future (World Bank, 2006).

The movement of people that is likely to intersect with trade agreements ‘will benefit from negotiators achieving a better understanding of the different policy contexts or perspectives, particularly those of trade, immigration, and labour market development’ (Henry, 2003). Figure 1 shows a representation of how these areas may interact. Henry argues that the overlapping nature of these policies means that trade officials need to consider immigration and labour market perspectives, while immigration and labour policy officials need to pay attention to trade policy issues. There are many areas of potential policy friction, and officials from the various areas may, at times, need to remember that they ‘are partners, not adversaries’ (Henry, 2003). Given the increasingly important interactions between these policy areas, officials may need to adjust ‘to a new mindset’ (Lambinon and Oriani-Ambrosini, 2005). Concerns that some trade agreements seem ‘to confuse... migration with international trade’ (Francois et al., 2005) may become less relevant in the future, with bilateral and regional trade agreements perhaps addressing these kind of broader issues as a matter of course. Crump (2007) suggests that dynamic interactions between negotiations with rich potential linkages is an ‘underdeveloped area of study within the field of negotiation’: improved understanding of negotiation linkage dynamics may help negotiators to better manage the opportunities and challenges arising from multiple complex and interacting international agreements.

Figure 1. Intersecting Policy Contexts



Source: Adapted from Henry (2003)

While there exists an extensive literature on trade negotiations and, similarly, a large literature on immigration policy, research that explicitly links the two is relatively sparse. However, this literature does appear to be expanding and evolving as the topic grows in importance. For example, there is an emerging literature on the movement of people for trade in services under the WTO framework that will be considered in this report (following reviews such as Mattoo and Carzaniga, 2003).

However, this area remains ‘under explored’ (Mattoo, 2003), with Hatton (2007) questioning whether there is even sufficient basis for WTO-style negotiations on migration. Bhatnagar (2004), Bhatnagar and Manning (2005) and Banda and Whalley (2005) discuss the movement of ‘natural persons’ in their analysis of free trade areas (FTAs) involving ASEAN countries.² Nielson (2003) offers a useful examination of labour mobility in 20 regional trade agreements. There is also a developing literature in the area of modelling the impact of trade liberalisation and international migration (including Walmsley and Winters, 2005; World Bank, 2006; and in a trans-Tasman context: Nana and Poot, 1996).

In this review, we examine literature on the implications of trade for the temporary and permanent movement of labour, and vice versa, with a focus on issues of particular relevance to New Zealand where possible. In Section 2, we begin by assessing the extent to which migration is explicitly considered in current international economic agreements. The next section focuses on the impact of trade on migration. Then Section 4 examines how migration can impact on trade and foreign direct investment. In Section 5 we briefly review some of the key benefits and costs of migration (a topic that is addressed extensively elsewhere, for example: Smith and Edmonston, 1997; Borjas, 1999a, 1999b; Poot and Cochrane, 2005; Productivity Commission, 2006). The penultimate section considers the relevance and implications of the reviewed literature for New Zealand, with the concluding section drawing together some general findings.

2 Migration linked to International Trade Agreements

In this section, we review available literature on direct linkages between trade negotiations and agreements on trans-border labour movement. However, it is difficult to fully review such links because migrant access (particularly of temporary workers) may be part of confidential trade negotiations, or may constitute a side agreement, and the links may not be explicitly acknowledged in publicly available documents.

It is important to emphasise at the outset that the international movement of labour has generally been treated quite differently from goods and investment flows (Chia, 2006). International trade liberalisation has taken place through a range of regional and multilateral agreements and foreign direct investment liberalisation has often accompanied these agreements (though not at the WTO level), while labour movements continue to be tightly regulated, particularly in the case of unskilled/semiskilled workers (Chia, 2006).

Hatton (2007) summarises a range of studies that compare the potential gains from reducing barriers to migration with those from reducing further barriers to trade. He finds that the gains from moving to free migration are typically huge compared to moving to free trade. Despite these large potential gains, liberalisation of migration has not shared the high-profile of trade liberalisation and the movement of people across borders has not been a central focus of most international trade agreements. Facchini (2004) reviews the literature on the political economy of international trade and factor mobility and concludes that there is empirical support that trade policy is determined by what he calls ‘influence driven contribution’, in which outcomes are determined by the relative negotiating strengths of lobby groups, such as business and unions. One

² In jurisprudence, a natural person is a human being perceptible through the senses and subject to physical laws, as opposed to an artificial person, i.e. an organisation that the law treats for some purposes as if it were a person.

would expect that a similar perspective can be used to explain restrictions to international migration flows, but Facchini (2004) argues that the formal theoretical and empirical literature in that area is still less developed.

Where they do cover labour mobility, multilateral and regional trade agreements treat it in a wide variety of ways, from (relatively) full mobility of labour through to little or no movement of labour being allowed (Nielson, 2003). Many alternative arrangements are possible, including with respect to the length of stay, the skill level and the type of contracts covered. Agreements covering countries with geographic proximity and similar levels of development tend to demonstrate a relatively liberal approach to labour mobility (Mattoo, 2001). However, Winters (2003b) notes that ‘the very heart of international trade...lies in exploiting differences. The larger the differences, the larger are the potential gains’. He extends this argument to the temporary movement of natural persons, implying that the greatest gains are to be had from allowing increased labour mobility between very different countries. However, in that case the social concerns may be much larger than in the case of migration between very similar countries. This paradox will be revisited later in the report.

In this section, we begin by examining the implications of the WTO agreements for labour mobility. We then examine two of the best known regional free trade areas, the European Union (EU) and the North American Free Trade Agreement, (NAFTA) to gain insights into the implications for the movement of people. We then move to a discussion of the range of regional and bilateral agreements in which New Zealand has a direct involvement, both current and anticipated.

2.1 The WTO Agreements

The WTO is the most extensive multilateral trade organisation, covering over 150 countries. These countries are diverse in their economies, geography and level of development, not to mention language and culture. The WTO was established in 1995 and includes rules based on the General Agreement on Tariffs and Trade (GATT), which originated in 1948. Following the Uruguay Round of negotiations, the WTO also implemented the General Agreement on Trade in Services (GATS), which is of particular relevance to the movement of people across international borders.

A key guiding principle of the WTO is non-discrimination between member countries. This principle is motivated by the maximum gains from trade that are achieved when non-discrimination allows access to the lowest cost suppliers. However, labour markets are generally not able to fully adjust, due to various non-competitive components and forms of public intervention such as minimum wages and social insurance. Hence, the benefits from non-discrimination may be weaker for the movement of people than for trade in goods (World Bank, 2006). In addition, because of the cyclical nature of unemployment, governments are typically reluctant to undertake quantitative and permanent commitments (Chia, 2006). The impact of a particular shipment of trade is only short-run: once consumed, the impact is gone. With respect to migrants, their arrival may impact on the economy and society for a long time (Carbaugh, 2007). A further hindrance to multilateral agreements is that countries generally prefer to import foreign workers from particular countries and communities, rather than being bound by the WTO principle of Most Favoured Nation (MFN) treatment, whereby discrimination between countries is not allowed (Chia, 2006). We note that even if the anticipated economic benefits are large, the expected social costs may deter the complete opening of borders.

The GATS was negotiated during the Uruguay Round in response to the huge growth in services in the global economy (DRCMGP, 2005), with services now the dominant sector of economic activity in most developed countries. All WTO members are signatories to the GATS, with the first round of negotiations on services trade having started in January 2000 (WTO, 2006). The GATS does not cover permanent migration, or workers in sectors other than services. It comprises four main elements, identified as modes one through to four. Mode 1 deals with cross-border supply; mode 2 focuses on consumption of services abroad; mode 3 deals with the commercial presence of foreign firms; while mode 4 is concerned with the presence of natural persons (WTO, 2006). Examples of the different modes of supply covered, from the perspective of the importing country (Country A), are provided in Table 1.

Table 1. Examples of the four modes covered by GATS

<p>Mode 1: Cross-border A user in country A receives services from another country through its telecommunications or postal infrastructure. Such supplies may include consultancy or market research reports, the services of calling centres for assistance and information, accounting services, medical advice, distance training, or architectural drawings.</p> <p>Mode 2: Consumption abroad Nationals of country A have moved abroad as tourists, students, or patients to consume the services in another country.</p> <p>Mode 3: Commercial presence The service is provided within country A by a locally-established affiliate, subsidiary, or representative office of a foreign-owned and controlled company (e.g. bank, hotel group, construction firm).</p> <p>Mode 4: Movement of natural persons A foreign national provides a service within country A as an independent supplier (e.g., consultant, health worker) or employee of a service supplier.</p>
--

Source: WTO, 2006

While negotiations on mode 4 first took place during the Uruguay Round from 1986 until 1994, these initial negotiations were primarily focused on facilitating business visits of an exploratory nature and also the movement of high-level personnel of multinational corporations. Mattoo (2003) notes that developing countries were disappointed with the lack of commitment given to any movement of workers unrelated to foreign direct investment. In addition, multinational firms wanted further facilitation of the movement of personnel across borders (Mattoo, 2003). While there may be plenty of scope for expanding the coverage of mode 4, explicit concessions have not been very forthcoming. There are also various other barriers that constrain the movement of people, including visa quotas, red-tape, discriminatory standards and lack of recognition of foreign professional qualifications (Mattoo, 2003).

GATS mode 4 appears primarily targeted at intra-corporate transferees and business visitors (Chaudhuri et al., 2004; Walmsley and Winters, 2005). However, more broadly, GATS encompasses the movement of natural persons for which it is hard to find substitutes, such as medical and construction services. In some services

sectors modern communication technology can substitute for person movement. This may be the case in education, accounting and lawyer services (ACCI, 2002; WTO, 2006).

There appears to be broad agreement in the literature that GATS, especially mode 4, is rather vague and unclear. Mode 4 was set up to make it easier for service workers to move between countries as temporary migrants. However, its impact is limited, with adherence to the agreement voluntary and flexible and even the term temporary not clearly defined (Chaudhuri et al., 2004). The definition of temporary can vary from a few months to a number of years, depending on the country and type of work and the types of movement covered. For example, Japan allows foreign business travellers to stay for up to 90 days, however, some categories of intra-corporate transferees may remain in Japan for up to five years (Mattoo, 2003). Teachers of English and university lecturers may also take up contracts with Japanese institutions that extend over several years. This rather vague notion of temporary movement may blur the distinction between mode 4 and more permanent migration. In addition, details of the coverage of GATS are sometimes unclear or under dispute (DRCMGP, 2005). Mattoo (2001) indicates that, for example, an Egyptian accountant selling services abroad, either independently or as an employee of an Egyptian firm, would likely be covered by GATS. However, if the accountant was employed by a host country firm, this would seem to fall outside of GATS. This kind of partial coverage may lead to distortions in international trade in services that diminish the potential economic gains.

Mattoo (2003) refers to GATS mode 4 as ‘ambitious in scope but unclear in definition’. While mode 4 is potentially ambitious, relatively few commitments to open markets have been made. This is evidenced by the very few changes in the movement of people that have been made compared to what was already covered under existing immigration policies.³ Indeed, countries’ actual temporary migration policies tend to be more liberal than commitments made under GATS (World Bank, 2006), with existing national regimes often ‘more open and less narrowly defined than the GATS’ (Mattoo, 2003). This is also the case in New Zealand.

Hufbauer and Stephenson (2007) argue that while the GATS was regarded as path breaking when it was negotiated in the mid-1990s, the world has changed quickly and overtaken it. For GATS to maintain relevance, they suggest it needs to move forward in four main areas: electronic delivery of services, liberalising temporary labour movement, dispute settlement, and future services trade liberalisation. However, Hatton (2007) argues that the problem is not simply institutional, with the real issue being that the basis for multilateral agreement on migration is not clear. The missing element is the reciprocity that is central to multilateral agreements. Since migration driven by absolute rather than comparative advantage, it is ‘more of a one-way street than is trade’ (Hatton, 2007).

2.2 *The NAFTA and EU agreements*

Following the review of GATS, we will now consider regional agreements with relevance to New Zealand. The best-known regional free trade agreements are the European Union (EU) and the North American Free Trade Agreement (NAFTA). Although these agreements cover countries geographically distant from New Zealand, they are important international benchmarks. We examine the implications of these agreements for the movement of persons to generate insights into both the opportunities and challenges of international labour movement.

³ See, for example, Chanda (2003), Winters et al. (2003), Chaudhuri et al. (2004) and Ghosh (2005).

The EU represents a unique agreement, which covers many different economies, cultures and languages.⁴ It seeks to preserve diversity, while also working to promote unity. The Treaty of Amsterdam on the EU came into force in May 1999 with the key ambition of maintaining and developing a multi-country area of freedom, security and justice; a region which promotes and assures the free movement of persons; and introduces appropriate methods to control borders, the entry of asylum seekers, and immigration (European Commission, 2006). The EU has resulted in relatively unrestricted movement of capital, goods and services. However, despite progress with respect to people movement, there remains a long way to go before this can be regarded as completely free among all EU member states. It was originally planned that only skilled workers would be able to move freely within the EU. However, due to political and social pressures, this has been extended to all categories of citizens (European Commission, 2006). Furthermore, it could be argued that a scheme that restricts on the basis of skills would be too cumbersome and costly to administer.

Since 2007, the EU comprises 27 member countries, but Western European members have indicated concern that the new Central and Eastern European Countries (CEEC) members will adversely impact their economies. This is particularly true of the labour market, where it is believed that large flows of labour could potentially move from east to west (Layard et al., 1992). There is a significant difference in wage levels between the old member states and the CEEC, necessitating the negotiation of transitional arrangements for the movement of people (Breuss, 2001). Jileva (2002) argues that the EU has adopted a relatively restrictive policy on the movement of labour from the CEEC. In this sense, the EU treats them ‘as members as far as the obligations of EU membership are concerned and as third countries as to its benefits’ (Jileva, 2002). Expansion of the EU into more diverse economic regions has tested the issue of borders and migration, with the EU displaying a very cautious approach to the new eastern borders (Kengerlinsky, 2004). When the EU expanded from 15 to 25 countries in May 2004, only Britain, Ireland and Sweden waived the opportunity to impose immigration restrictions lasting up to seven years. With the recent joining of Bulgaria and Romania in January 2007, even these countries now impose restrictions on migration. Britain defends the restrictions on the grounds that immigrant flows since 2004 from Eastern European countries had been grossly underestimated and the only two sectors in Britain open to unskilled workers from Bulgaria and Romania are food processing and agriculture.⁵

The NAFTA has been in force since 1994 and, covering only Canada, the United States and Mexico, it is much smaller than the EU in terms of membership. NAFTA is also much less ambitious than the EU in terms of cross-border people movement, however, it does include provisions for the *temporary* movement of business persons across each of the borders. NAFTA defines temporary entry as entry without wanting to establish permanent residence and the period of stay should have a ‘reasonable finite end’ (DFAIT, 2006). This absence of a set time period appears to give some discretion to the administering officials.

There are four categories of business persons in the NAFTA agreement: business visitors, professionals, intra-company transferees, and traders/investors. Business visitors may perform work in all aspects of production: research and design,

⁴ For a recent report on the European Union, see The Economist (2007).

⁵ Source: *The Sofia Echo*, 24 October 2006. Dustmann and Glitz (2006, Chapter 2) provide an overview of Europe’s experience of migration since the Second World War. The Economist (2008) provides a recent survey of migration issues.

manufacturing, marketing, sales, after-sales service, and distribution (DFAIT, 2006). The 'professionals' category covers 63 professions, including accountants, engineers and lawyers. These professionals can enter the member country for temporary employment in their occupation. They can also enter to perform training functions or conduct seminars in their respective profession (DFAIT, 2006). An intra-company transferee is a person who is employed by an enterprise to perform management, executive or specialised functions in an enterprise, parent branch, subsidiary, or affiliated branch in another member state (DFAIT, 2006). The traders and investors category is particularly interesting. It allows traders to enter a member state if they conduct over 50 percent of their trade in goods or services between the member countries, while investors must own at least 50 percent in a company, or maintain a controlling interest. Business persons in this category may also enter if they wish to establish, develop, administer, or provide consulting or technical services to manage an investment to which foreign capital has been, or is going to be committed to a project. Included in this category are the employees of the traders and investors, who may act in a supervisory or executive capacity, or have skills that are essential to the operation of the company (DFAIT, 2006).

The NAFTA agreement differs of course from the EU situation in that permanent migration between the members States is still relatively restricted. However, notwithstanding the restrictions on labour mobility between the three countries, there were in 2001 about 250,000 US born and 50,000 Mexico born persons living in Canada and some 800,000 Canada born and 9 million Mexico born living in the US.

2.3 New Zealand's current trade agreements

Table 2 summarises New Zealand's current key trade agreements. It indicates some of the main aims, provisions and functions of the agreements, along with an indication of how labour mobility is integrated into these agreements. The table includes the information with respect to WTO and GATS that was already covered earlier. Detailed subsections further explain the other agreements and their implications.

Asia-Pacific Economic Cooperation

Asia-Pacific Economic Cooperation (APEC) is a multilateral economic and trade forum, formed in 1989 and now with 21 member economies, including New Zealand. APEC is committed to increasing trade by reducing barriers, as outlined under the Bogor Goals of 'free and open trade and investment'. The APEC region has had some success in lowering tariffs on average from 16.9 percent to 5.5 percent between 1989 and 2004. Many of the APEC members have had high rates of economic growth and the population living in poverty in APEC economies has approximately halved since 1989 (APEC, 2006; MFAT, 2007), though APEC itself is of course only one factor contributing to this outcome.

APEC does not contain specific market access arrangements for labour mobility. However, it does include 'arrangements aimed at facilitating labour mobility by information exchange; dialogue with business; development and implementation of immigration standards; and capacity building to help streamline temporary entry, stay and departure processing for business people' (Nielson, 2003). The APEC Business Travel Card Scheme simplifies the entry of cardholders into participating countries and reduces time and costs of entry visas and permits (Chia, 2006). The card allows accredited business people easier access to participating economies. The card has a validity of three years and card holders have special privileges such as APEC immigration lanes at airports and automatic multiple entry visas for stays of up to 90

days (Business Mobility Group, 2006; APEC, 2006). Other agreed measures aimed at facilitating the mobility of business people include: standards for processing applications; extending temporary residence permits for certain categories of skilled workers transferring within companies; and also Advanced Passenger Information (API) systems which enable passengers to be processed in advance of arrival in the destination country (Chia, 2006).

Australia New Zealand Closer Economic Relations Agreement

In 1965, New Zealand's first free trade agreement was arranged with Australia, named the New Zealand-Australia Free Trade Agreement (i.e., the original 'NAFTA'). The agreement was not actually a free trade agreement as such; it was rather an unclear agreement on removing trade barriers between the two countries. In January 1983, the Australia-New Zealand Closer Economic Relations Trade Agreement (ANZCERTA, commonly referred to as CER) came into force, replacing the less comprehensive NAFTA (Nana and Poot, 1996). Through CER there has been free trade in most goods and services since 1990. The WTO has commended the agreement as being 'the world's most comprehensive, effective and mutually compatible free trade agreement' (MFAT, 2007).

Alongside CER is the Trans-Tasman Travel Arrangement (TTTA), which has been effectively operating since 1923 and formally since 1973 (Carmichael, 1993), whereby both New Zealand and Australian citizens can freely enter, live and work in each country. The TTTA is not a binding bilateral treaty but rather a string of procedures in the immigration policies of both countries. In 2001 Australia modified the arrangement by redefining eligibility for trans-Tasman social security, as noted earlier. Since then, New Zealanders who are not permanent residents in Australia are not able to receive labour market-related social security benefits, notably the unemployment benefit. New Zealanders who are semi-skilled or unskilled are most disadvantaged as they may not meet the Australian permanent residency criteria. There is some evidence of greater return migration and lesser attachment to Australia since the introduction of the new policy (Poot and Sanderson, 2007). The asymmetric treatment with respect to social security is arguably a step backwards on the path towards the single Australasian market. While New Zealanders working in Australia will be required to pay Australian taxes, when they become unemployed they may not receive the same benefits as Australians (Venter, 2001; Bushnell and Choy, 2001; MFAT, 2007).

In 1998, the Trans-Tasman Mutual Recognition Arrangement (TTMRA) entered into force, and as part of this arrangement, people are able to register an occupation and practise in the other country if they are registered in this occupation in the home country. This has lowered the barriers to people moving for employment reasons between the two countries (MFAT, 2007).

Pacific Island agreements

New Zealand and Australia have close ties to the Pacific Islands. One agreement that came into force for most Forum Island Countries (FIC) in January 1981 was the South Pacific Regional Trade and Economic Co-operation Agreement (SPARTECA).⁶

⁶ The Pacific Forum island countries comprise the Cook Islands, the Federal States of Micronesia, Fiji, Kiribati, Nauru, Niue, Palau, Papua New Guinea, Republic of the Marshall Islands, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu.

Table 2. Current Trade Agreements

Agreement and documents consulted	Established	Members	Main Aims and Provisions	Integration of Labour Mobility
WTO (WTO, 2006).	January 1995	151 countries	Multilateral trade liberalisation: administration, forum for negotiations and handling disputes.	Does not focus specifically on labour mobility, however all WTO members are signatories to the GATS.
GATS (WTO, 2006).	January 1995	All WTO members.	Increased transparency and predictability of rules and regulations. Promotion of services liberalisation.	Mode 4 of the GATS covers temporary movement of natural persons in the services sectors.
APEC (Business Mobility Group, 2006; APEC, 2006).	1989	21 economies	Increase trade by reducing barriers under the 'Three Pillars' 1) Trade and investment liberalisation, 2) Business facilitation , 3) Economic and technical cooperation	APEC Business Travel Card (17 members) allows easier access by business people.
ANZCERTA (or CER), (TTTA & TTMRA) (Carmichael, 1993; Nana and Poot, 1996; MFAT, 2007).	January 1983	Australia and New Zealand	Free trade in goods and services. Also freedom of people movement. However, market access issues in some sectors are still to be resolved. The ultimate goal is a single economic market.	Mutual recognition of occupations (with their qualifications). Citizens of both countries may freely, enter, live and work in each country.
SPARTECA (Forum Secretariat, 1998).	January 1981	Forum Island Countries (FIC) with Australia and New Zealand.	Integration of trade between FICs and Australia and New Zealand. New Zealand offers duty free and unrestricted or concessional access for almost all products originating from FICs.	None evident.

Table 2: Current Trade Agreements (*Continued*)

Agreement and source documents	Established	Members	Main Aims and Provisions	Integration of Labour Mobility
PACER (MFAT, 2007; Qalo, 2006; Voigt-Graf, 2006).	October 2002	Pacific Island countries, Australia and New Zealand	Vision of free trade with a current aim of increased trade facilitation. No significant provisions for trade liberalisation, but rather a guide of how this should be undertaken.	Currently no provisions, but agreement has potential for, e.g., the setting up of work programmes.
ANZSCEP (Nielson, 2003; MFAT, 2007).	January 2001	New Zealand and Singapore	To advance the trade in goods and services and increase investment.	Easier for business visitors and intra-corporate transferees. Uses the GATS model with some additional elements. Professionals and their qualifications are mutually recognised.
NZTCEP (MFAT, 2007).	July 2005	New Zealand and Thailand	Eliminating tariffs and quotas. Liberalising trade and investment, encouraging cooperation in areas of mutual interest, improving efficiency and competitiveness.	Business visitors and intra-corporate transferees can enter each country more easily. New Zealand agreed to temporary entry of Thai Chefs and possibly Thai massage therapists.
TPSEP (Nielson, 2003; MFAT, 2007).	May – August 2006	Brunei Darussalam, Chile, New Zealand and Singapore	Elimination of tariffs and quotas. There will be or has been an immediate elimination of tariffs in 90 percent of exports. All tariffs are to be eliminated by the year 2017.	Improved travel conditions for business people. GATS commitments are honoured as well as APEC business card commitments. Also, increased recognition of qualifications.

SPARTECA is 'a non-reciprocal trade agreement under which the two developed nations of the South Pacific Forum, Australia and New Zealand, offer duty free and unrestricted or concessional access for virtually all products originating from the developing island member countries of the FIC' (Forum Secretariat, 1998).

Another Pacific Island agreement is the Pacific Agreement for Closer Economic Relations (PACER). This also includes Australia and New Zealand. The agreement entered into force in October 2002, but does not contain significant provisions for the liberalisation of trade. Instead, PACER provides guidelines for setting up an agreement for goods trade between the Pacific Island countries, as occurred in 2003 with the Pacific Island Countries Trade Agreement (PICTA) (MFAT, 2007). Currently however, there are no provisions in the SPARTECA or PACER agreements that deal with the movement of people. It is clear that from the perspectives of both the Pacific nations and New Zealand there are benefits in giving this more prominence. Such benefits are outlined elsewhere in this report, but we note here that the temporary movement of people, as well as more permanent migration, may be important sources of foreign exchange supply through remittances for many of the FIC (Qalo, 2006; Voigt-Graf, 2006; MFAT, 2007, World Bank, 2006). Permanent migration from the Pacific Islands to New Zealand has of course already been extensive, with the number of New Zealand residents from selected Pacific birthplaces being in 2006: 51,000 from Samoa, 38,000 from Fiji and 21,000 from Tonga.

Forau (2006) argues that the FIC currently do not provide employment for all of the economically active populations. Their small and peripheral economies may have been detrimentally affected by globalisation forces (Poot, 2004). The resulting unemployment or underemployment may become a source of disruption and pose threats to the security and viability of those countries. Therefore, the Pacific communities have two main options. They must either invest in job creation, or negotiate better people movement provisions with New Zealand and Australia. Section 6.1 discusses some new initiatives in temporary movement in more detail.

Agreement between New Zealand and Singapore on a Closer Economic Partnership

The New Zealand and Singapore Closer Economic Partnership Agreement (ANZSCEP) entered into force in January, 2001. At the time, it was the most comprehensive trade agreement negotiated by New Zealand, with the exception of the CER. The agreement strives to advance trade in goods and services and increase investment in the two economies.

Labour mobility is included in Part 11 of the General Provisions, using the GATS model, with some additional elements (Nielson, 2003). Under the ANZSCEP, service exporters from New Zealand will have better access into Singapore, especially in such areas as architecture, engineering, telecommunications, finance, education and environmental services. Regulatory agencies and educational institutions have been set up so that services can flow more freely between the economies. This has been done so that professionals and their qualifications are mutually recognised in each economy (MFAT, 2007).

The ANZSCEP also makes it easier to buy Singaporean services in New Zealand. The areas that received particular attention were engineering services, computer and related services, transport, dental services, environmental services and some business sectors, including market research and management consulting (MFAT, 2007). The agreement makes it easier for both business visitors and intra-corporate

transferees to enter Singapore and New Zealand. Temporary business visitors are able to enter Singapore to negotiate or service a contract and stay for a month, which can be extended for a further two months. Intra-corporate transferees must have worked for the firm for at least a year, after which time they can work for the company in Singapore for up to three years (MFAT, 2007).

New Zealand and Thailand Closer Economic Partnership

In July 2005, the New Zealand and Thailand Closer Economic Partnership (NZTCEP) entered into force. The main commitment under the agreement is to establish a free trade area. When the NZTCEP entered into force, about 50 percent of the tariffs were eliminated, with a goal of eliminating the last tariffs and quotas in 2025. Trade between the two countries amounted to NZ\$1 billion in 2004, with New Zealand exports accounting for \$365 million of this. New Zealand exporters faced 9 percent tariffs on average, with some tariffs as high as 40 to 60 percent, therefore, the NZTCEP opens up many opportunities (MFAT, 2007).

Under the NZTCEP, Thailand was unable to consider any major services negotiations. However, it was agreed that talks on such liberalisation would commence within three years. With the NZTCEP, New Zealand and Thailand have agreed on several aspects of temporary entry of people, mainly through the exchange of letters. Business visitors from New Zealand are able to apply for one-year multiple entry non-immigrant business visas, which allow business people to enter Thailand for 90 days each visit. It was also negotiated that intra-corporate transferees who are managers, executives or specialists can have one year work permits that can be renewed up to a maximum of five years. In addition to this, the intra-corporate transferees do not have to notify Thai authorities to attend business meetings, seminars, or 'conduct business contacts'. Another aspect of people movement that was agreed to by Thailand was that New Zealand investors with at least two million Baht (about NZ\$87,000) of capital will be able to access Thailand's One Stop Service Centre for visa and work permit applications (MFAT, 2007).

New Zealand also made concessions to Thailand, including agreeing to the temporary movement of Thai chefs into New Zealand. Under the agreement a Thai national must have gained a Thai cooking certificate at levels 1, 2 or 3 with practical experience of 5, 4 or 3 years respectively and they need to have secured a job offer. If Thai chefs meet the requirements, they may enter New Zealand for a period of three years, which can be extended for an extra one year (MFAT, 2007). New Zealand is also examining the possibility of recognising traditional Thai massage therapist qualifications, which would allow them to enter New Zealand for temporary employment.

Trans-Pacific Strategic Economic Partnership

The Trans-Pacific Strategic Economic Partnership (TPSEP) has four founding member countries: Brunei Darussalam, Chile, New Zealand and Singapore. This is the first regional agreement that New Zealand has made which incorporates a Latin American country. The agreement entered into force (officially) between New Zealand and Singapore on 28 May 2006. The ANZSCEP from 2001 will continue to be in force; both countries are able to take advantage of provisions from either agreement. The TPSEP entered into force on 12 July 2006 between New Zealand and Brunei and the Chilean senate approved the deal on August 9, 2006. An important part of the agreement is the elimination of tariffs. There are also no quotas allowed, and very little allowance for the use of transitional safeguards. In each market there

has been, or will be, an immediate elimination of tariffs in 90 percent of exports, with all tariffs to be eliminated by 2017 (MFAT, 2007).

The TPSEP improves travel conditions for New Zealand business people by facilitating the temporary entry of business persons through streamlined and transparent immigration clearance procedures. In addition, the members have re-established their GATS commitments in regard to the temporary entry for business people and they have confirmed their APEC business travel card commitments. Furthermore, provisions have been made to increase the recognition of New Zealand qualifications and professional registration organisations. Those professions and qualifications which will be given priority are: architects, accountants, engineers, geologists, geophysicists and planners (MFAT, 2007). The agreement also has a 'MFN Treatment' clause, whereby the service suppliers in New Zealand will get the benefit of commitments made by the TPSEP member countries in later FTAs which are more liberal than those in the TPSEP (MFAT, 2007).

The New Zealand-China Free Trade Agreement

The New Zealand and China Free Trade Agreement was signed in April 2008, with the FTA expected to come into force from 1 October 2008. This agreement "liberalises and facilitates trade in goods and services, improves the business environment and promotes cooperation between the two countries in a broad range of economic areas".⁷ It marks the first bilateral trade negotiation that China has entered into with a developed country.

China is New Zealand's fourth largest trading partner and, with its rapidly growing economy, China is of increasing importance as a trading partner to New Zealand. We also note that China continues to be the major source country of foreign students in New Zealand. During the year ending June 2006, 26,661 entry permits were issued to Chinese students. However, the number has declined from a peak of 40,748 in June year 02/03 (Bedford and Ho, 2006; MFAT, 2007). The trade agreement offers significant potential benefits to New Zealand, particularly for securing markets in goods and services that include milk powder, wool and education (MFAT, 2007).

Included in the fairly comprehensive agreement on trade and service liberalization, is agreement on some improvements to labour movement between the countries. Annex 10 of the FTA details commitments on temporary entry, Annex 11 details commitments on temporary employment entry and Annex 12 details visa facilitation agreements.⁸ The FTA aims to improve the ease with which New Zealand and Chinese nationals can temporarily enter one another's countries for stays related to the supply of services. In particular, there is commitment to fast processing and greater transparency in the processing of visa applications for New Zealand business people, along with an increase in the allowed stay from 90 days to a maximum of six months. Senior and specialist inter-corporate transferees to China will be granted a work permit for an initial stay of up to three years. Likewise, under certain conditions, Chinese executives or managers may enter for an initial stay of up to three years which may be extended for a further three years. There are also commitments for a total of up to 800 skilled workers from China to enter New Zealand for temporary employment in specified the areas of include traditional Chinese medicine, Chinese chefs, 'Wushu' martial arts coaches and Chinese tour guides.

⁷ www.chinafta.govt.nz

⁸ Detailed information on all aspects of the FTA can be found at www.chinafta.govt.nz.

Alongside the China-New Zealand FTA is a side letter on skilled workers and an arrangement for working holidays. Under the skilled workers agreement, a maximum of 1000 skilled Chinese may be granted temporary employment for up to three years in specified occupations where New Zealand has a shortage of skills. The working holiday scheme allows an annual quota of up to 1000 skilled, young Chinese to enter New Zealand for up to a year.

While these agreements regarding the movement of people do not cover large numbers, it is notable that they formed an explicit part of the negotiations and agreement reached between China and New Zealand. These kinds of agreements may well become an increasingly common and more important component of bilateral and regional trade agreements.

2.4 New Zealand's anticipated trade agreements

There are also a number of trade agreements currently under negotiation or anticipated by New Zealand that we briefly introduce here. In particular, there are negotiations with ASEAN, Malaysia, Hong Kong and possibly the United States. There is, however, very limited publicly available information on how the movement of people will be dealt with in these agreements.

In 2004, the Association of Southeast Asian Nations (ASEAN) with its 10 member countries agreed to start free trade negotiations with both Australia and New Zealand. The combined population of this area encompasses 500 million people, with over US\$700 billion in GDP. The agreement should help foster greater economic growth in the area and it has been suggested that an additional US\$48 billion in GDP will be gained between 2000 and 2020, with New Zealand's share being US\$3.4 billion (MFAT, 2007). If the EU area is counted as a whole, ASEAN becomes the fifth largest export market and also source of imports for New Zealand. Negotiations between ASEAN and Australia and New Zealand are continuing.

Another country with which New Zealand is conducting trade negotiations is Malaysia. Within ASEAN, it is New Zealand's largest trading partner and an agreement will further strengthen the ASEAN agreement. While some issues have been finalised, further negotiation is needed with respect to services and investment, areas that are of course particularly relevant with respect to implications for migration.

Negotiations between China's Special Administrative Region of Hong Kong and New Zealand commenced in 2001, however, these were suspended in late 2002. The situation is likely to be reviewed, given the now concluded China-New Zealand Free Trade Agreement. Hong Kong is New Zealand's seventh largest export destination. New Zealand negotiators would strive to create a positive environment for encouraging inward investment from Hong Kong into New Zealand (MFAT, 2007). Such investment may trigger some temporary and permanent migration.

New Zealand is currently actively seeking a way forward towards an agreement with the United States that has similarities with the 2005 Australia – United States Free Trade Agreement (AUSTFA). There are interesting issues regarding temporary movement in this context. While AUSTFA does not include a chapter on the movement of natural persons along the lines of mode 4 of GATS, the agreement did spark efforts in the US Congress and a special E-3 visa for Australian professionals was passed through legislation. The visa applies to those Australian nationals that have a university degree (or its equivalent in specialty occupations), and are looking for temporary residence to work in the US. The applicants also need a sponsoring US business. There is an annual quota of 10,500 applicants, which does

not include their spouses and children, though the E-3 holder's spouse is entitled to work as well. An initial two year visa is issued, which can be extended every two years for an indefinite period of time (DFAT, 2005).

2.5 Summary of agreements

We have explored a range of multilateral, regional and bilateral trade agreements, particularly focusing on those directly affecting New Zealand. Most multilateral and regional trade agreements, with the exception of the EU and CER, appear to have had very limited impact on the temporary or permanent movement of less-skilled workers (World Bank, 2006). It should be noted that agreements on free labour movement are much more likely among countries that have similar levels of development. This was undoubtedly a major factor in the EU and CER agreements. With the expansion of the EU to countries with much lower income levels in recent years, (temporary) barriers have been introduced in the EU to limit migration flows from new member countries to existing high income members. This suggests that, while economic theory shows that countries can gain from both trade and labour migration, distributional issues (net gains coincide with a distribution of winners and losers from the liberalisation) are perceived to be less detrimental in trade than in migration liberalisation.

The absence of multilateral agreements for dealing with visa and work permit issues in the global economy has led to some trade agreements dealing with the movement of people explicitly, usually in separate chapters. Banda and Whalley (2005) note that the 'platform provided by a wide ranging trade and economic partnership agreement facilitates visa and work permits issues being included in the negotiations. But, the diversity of both outcome and approaches makes the emergence of later common disciplines from these agreements that much more difficult'.

The treatment of labour movement in trade agreements is currently very patchy, but will be supplemented to some extent by separate international labour agreements. While international trade agreements tend to be rather limited in permitting liberalisation of the movement of people, a number of bilateral and regional agreements exist that facilitate movement between selected countries, particularly between 'similar' developed countries such as Australia and New Zealand, Ireland and the United Kingdom, and the European Union, as noted above. It can be argued that typically 'trade agreements tend to be developed in response to trade that is already under way. Trade is rarely initiated by trade agreements' (OECD, 2004). Similarly, we may find that labour agreements will have a similar tendency to cover movement of labour that is already occurring to some extent.

3 The impact of trade on migration

Recent decades have seen a large reduction in barriers for many traded goods and services, as illustrated by the trade agreements reviewed in the previous section. There has also been considerable liberalisation of markets for financial capital. However, the removal of barriers to the movement of people has been relatively limited. Of course, growth in immigration to developed economies has been significant, with the share of migrants in the population of high-income countries almost doubling between 1970 and 2000. However, of the current world population of 6.6 billion no more than 3 percent are resident in a country other than their country of birth. This contrasts markedly with trade, where the ratio of worldwide imports to GDP is around 10 percent (Hatton, 2007). While for OECD countries the ratio of immigrants to

population is around 6 percent on average, the ratio of imports to GDP is four and a half times this at 27.5 percent (Hatton, 2007). This suggests enormous potential for further increases in migration.

Freeman (2006a) also compares the relative importance of people, trade and capital flows in globalisation by looking at several different measures. There is no simple way of comparing the flows. Nevertheless, international merchandise trade as a fraction of the global sales of goods, and international capital flows as a fraction of the global capital market are much more significant than immigrants are as a proportion of the global labour market. Another measure is that of price or wage dispersion. Wages of similar occupations around the world are much more dispersed than prices of goods and the cost of capital. Freeman therefore concludes that the least liberalised part in the global economy is the labour market.

In this section, we examine the interactions between trade and investment flows and migration. Some of the movement of skilled labour between countries is closely aligned with the movement of capital and trade. Given the relatively mild regulation of the temporary movement of people, most of the cross border people flows tend to be of a temporary nature (Iredale, 2000). Migration that is intended to be long term or permanent, faces in most cases relatively strong restrictions. Particularly strong restrictions tend to be placed on unskilled workers, family-linked migration and the admission of people on humanitarian grounds. Both Iredale (2000) and Freeman (2006a) argue that there will be a loosening of such restrictions when developed economies with ageing populations start to realise the benefits of opening the border to labour flows. On the other hand, concerns about diminishing social cohesion may lead to tighter restrictions.

3.1 Goods trade and migration

With increasing trade in goods internationally, the relocation of people may be necessary to facilitate transactions. Without more careful coordination of trade and migration policies, firms will be 'harder and harder pressed to meet their increasing need for more permeable borders that allow the flexible and fleet movement of high-skilled employees' (Keely, 2003). Both Harris (1998) and Kikuchi (2003) argue that communication networks, such as the internet, are important in facilitating business services trade, including the services of skilled labour.

Goods trade and people movement: Substitutes or complements?

In models of international trade it is argued that

'if country A has more labour relative to capital than country B, it can send labour to country B directly through immigration or indirectly through the export of labour-intensive goods. Restrict immigration, and trade [of goods] should increase. Restrict trade, and immigration should increase' (Freeman, 2006a, p.160).

This then argues for the substitution case. In other words: movements of goods, or factors of production other than labour, may be able to substitute for the movement of people (Luterbacher and Theler, 1994; Feenstra, 1998; Freeman, 2006a).

Collins et al. (1997) argue that if a quota is set on the number of immigrants this will create an incentive for trade in goods to increase, causing more competition with local suppliers in the quota-setting country. On the other hand, if tariffs are significant, then it is likely that countries will receive more pressure from potential immigrants to allow access to their labour markets. This is because the immigrants' home countries' exports will be lower than otherwise, causing lower demand for

labour used to produce such export commodities. In addition, prices of goods and wages tend to be relatively high in developed countries with protected domestic industries, and the gains to immigrants may be significant if they can gain access to these labour markets.

Apart from substituting finished goods for labour movement, it is also common for countries to demand low-skill labour intensive intermediate goods from abroad. This will result in a relative fall in demand for low-skilled workers in the importing country. On the other hand, unskilled labour demand will then rise in the exporting economies. Activities which need large amounts of low-skilled labour may be outsourced to low wage economies, given the constraints of moving people between countries. For example, in the case of the well-known Barbie doll, materials such as plastics and hair are retrieved from Taiwan and Japan, with the assembly undertaken mainly in the low-wage labour markets of Indonesia, Malaysia and China (Tempest, 1996; Hatton and Williamson, 2005).

Outsourcing can lead to concerns about the hollowing out of domestic industries, with large shifts in the location of production to abroad. This has been a particularly prominent issue in countries such as Japan (e.g., Cowling and Tomlinson, 2001). In recent years, there has been rapid growth in outsourcing of services (e.g. call centres) where the main benefit is not the abundance of unskilled labour in the developing economy, but the wage differential between developing and developed countries in the cost of skilled labour. A major concern that countries seem to have with outsourcing is the loss of jobs for local citizens, although some argue that the quality of services can also be affected. From a purely economic perspective, the benefits will likely outweigh the costs, with production shifting according to comparative advantage. Gregory Mankiw, a very well-known and respected economist, has stated that ‘outsourcing is just a new way of doing international trade’ (Drezner, 2004).

Outsourcing of services has become increasingly possible due to new technologies, the lowering of communication costs and the compatibility of software packages. Some of the main business functions or activities that are outsourced include: customer service, telemarketing, and document management. In addition, professional services in medical transcription, tax preparation, and finance are also outsourced (Drezner, 2004). The literature in this area generally concludes that outsourcing leads to a redistribution of job opportunities. While lower-wage jobs are lost due to outsourcing, they are replaced by higher-wage jobs in the local economy (Bardhan and Kroll, 2003; Drezner, 2004; Bhagwati et al. 2004; Yomogida and Zhao, 2005).

There are some concerns that large numbers of the services jobs may be lost to countries such as India (e.g., Ganguly, 2005). However, Bhagwati et al. (2004) argue that this fear is unfounded. For example, around 70 percent of jobs in services in the US require both the consumer and supplier to physically be in the same place. This means that these jobs cannot be outsourced. Examples include retailing, catering, restaurants, hotels, tourism, and personal care. Hufbauer and Stephenson (2007) agree that ‘available evidence suggests that widespread fears of massive job losses in industrial countries due to outsourcing are overblown’.

Yomogida and Zhao (2005) note that outsourcing of services and immigration are ‘two sides of the same story’ in that when a firm cannot hire cheap labour through immigration, outsourcing will be undertaken to substitute for this. In most countries, outsourcing at the firm level faces fewer restrictions than immigration. This raises an interesting issue for research as the net benefits of outsourcing as compared with

immigration have yet to be assessed. Meta-analysis of the available evidence suggests that immigration has very little impact on wages and employment opportunities of native workers (Longhi et al. 2005a; 2005b). This is partially due to the consumption of locally produced goods and services by immigrants and through faster capital accumulation. With outsourcing, short-run domestic demand may decrease and wage and employment opportunities of local workers may be more negatively affected until long-run adjustments have been made.

Jain et al. (2006) consider the dilemma that governments of developed countries face: restricting immigration may encourage firms to outsource services abroad, but permitting immigration may also lead to distributional and social costs. Jain et al. (2006) argue that there is more political resistance to the outsourcing of service sector jobs than to the loss of manufacturing jobs (e.g. due to trade liberalisation) because of the general purpose nature of information technology that is used in services. This implies that outsourcing of services could potentially affect a greater share of the labour force than an increased vulnerability of manufacturing jobs.

International production factor movements, such as migration and capital flows are not always substitutes for trade. Markusen (1983) defines the flows as complements when trade increases as international factor mobility increases, and substitutes when trade falls due to an increase in factor mobility. The migrant labour input into production may be complementary to the locally born workers in a number of different ways. For example, as Freeman (2006a) points out, Mexican low-skilled workers have on average three years less schooling than low-skilled American workers, which may be a reason for the disproportionate representation of Mexicans in certain job areas. Furthermore, Jones (2005) notes that immigrant labour may differ in some unmeasured ways from local workers. One possible way may be a willingness to work in jobs that locals perceive as undesirable. For example, the seafood industry in Thailand makes use of workers from Myanmar willing to undertake unskilled work such as opening shellfish. This unskilled job is increasingly unattractive to Thai workers who have other opportunities. Therefore, immigrants and local workers may be complements in production. If the inflow of migrants is large enough, migrant inflows may lead to an increase in the marginal product of locals. Jones (2005) concluded that under certain circumstances both immigration and outsourcing of labour intensive production may lead to higher wages.

While complementarity between goods and factor movements is possible, there are economic theories that equally well suggest that migration and trade can be substitutes (Schiff, 2006; Carbaugh, 2007). The literature on this topic, reviewed in for example Nana and Poot (1996), concludes that in theory, trade and factor movements can be either complements or substitutes. The more realistically the theoretical models are formulated, the harder it becomes to draw firm conclusions. For example, Felbermayr and Kohler (2006) design a trade and migration general equilibrium model with three skill groups of labour and three types of outputs. However, analytical solutions in these types of models are quite messy. It is clear, therefore, that the substitution/complementarity question requires empirical testing (Bowen and Wu, 2005).

Bowen and Wu (2005) suggest that the literature in this area has neglected to look at how the *type* of immigrant employment may affect the issue of whether trade and immigration are complements or substitutes. Many immigrants work in sectors which produce non-traded goods, and some immigrants may face barriers in moving across sectors in the host country. Furthermore, a growing portion of industrial countries' economies consist of the activities of non-traded services sectors. In this

case immigration leads to a larger domestic economy, more income and therefore a higher demand for imports. In response to these issues, Bowen and Wu (2005) develop a simple model for an open economy in which two internationally traded goods and one non-traded good are produced. The authors' model predictions, using a panel of OECD countries, show that trade and immigration are complements. The model shows that the larger the fraction of new immigrants employed in the non-traded sector, the more likely it is that trade and immigration are complements. However, the complementary relationship can be reduced, and may even be reversed, by some immigration policies. For example, guest-worker programs which recruit immigrants who substitute for domestic workers in traded goods sectors may lead to fewer imports from the countries that send the migrants. The Bowen and Wu (2005) model also suggests that it matters from which country an immigrant originates. When immigrants come from countries with language or culture common to the host nation, they are able to integrate more easily into the local labour force. If, in addition, they have the skills necessary to work in the traded goods sectors, this will lower the positive effect of their presence on the non-traded goods sector and cause trade and immigration to become substitutes. In a recent paper, which also addresses the issue of substitutes and complements, Schiff (2006) analyses twenty different scenarios that show possibilities for both.

In summary, we find an interesting paradox. As has also been elucidated formally through economic theory by Borjas (1999a), the economic benefits to a country from immigration are the greatest when migrants and the locally-born are the least similar. However, this is precisely the case when the social costs of immigration are the largest (e.g., Schiff, 2000). The argument is that people establish attachments more easily with those who have similar customs, values, language, history and culture. For this reason migration can be thought of as creating negative externalities, or unintended adverse impacts, in terms of social cohesion. On the other hand, diversity may have positive externalities if it creates a more vibrant and entrepreneurial society (Poot, 2008). It is thought that migration can not be optimal from both the host and sending countries' point of view unless the negative externalities are somehow internalised (Schiff, 2000).

In the New Zealand and Australia context, Nana and Poot (1996) evaluated the impact on the two countries of lowering trade barriers with other (that is, third) countries. The study used a two-country multi-sectoral computable general equilibrium (CGE) model. The model takes account of the fact that production in Australia is on average more capital intensive than in New Zealand and this leads to higher real wages in Australia and a tendency for net migration from New Zealand to Australia.⁹ It is found that when trade barriers are removed with respect to third countries, microeconomic adjustments will be made that expand production in those sectors where the respective countries have a comparative advantage. Australia then demands relatively more capital and New Zealand relatively more labour. While this could lead to some return migration of New Zealanders from Australia, professional workers and capital are complements in production. Trade liberalisation could then lead to a 'brain drain' from New Zealand to Australia. Nevertheless, the impact of these adjustments on the movement of people between Australia and New Zealand is possibly quite small and may be offset through the impact of macroeconomic policies or changes in the business cycle.

⁹ Another implication is of course that the rates of return to capital (and real interest rates) are higher in New Zealand than in Australia. Capital would therefore tend to flow from Australia to New Zealand.

Trade Facilitation

Trade facilitation is currently a key area of interest in international trade. Originally, trade facilitation tended to be narrowly focused on the logistics of moving goods through ports or customs. However, the definition has broadened over time and can now cover the entire environment in which trade takes place (Wilson, 2003). This includes transparency in regulatory authorities, harmonisation of standards and conformance to international norms, as well as the available technology. It is also referred to as business facilitation or, in the popular jargon, as ‘cutting red tape’ (Woo and Wilson, 2000; Kleitz, 2002; McMaster and Nowak, 2006). Trading procedures that are inefficient are a discriminatory tax on economic activity between different countries, resulting in a deadweight loss. Making such procedures more efficient, or removing such procedures entirely, can result in a positive-sum game (Kleitz, 2002).

A study by Kim and Park (2005) looked at four trade facilitation indices: customs procedures; standards and conformity; business mobility; and information and communication technology. It was found that each index has a positive and significant effect on trade between three Northeast Asian countries, namely China, Korea and Japan. For this reason, the authors recommend that free trade agreements should stress trade facilitation, rather than just following the standard tariff reduction agenda. Woo and Wilson (2000) note that trade facilitation among APEC countries may yield an extra 0.25 percent of real GDP by 2010 (Woo and Wilson, 2000). Although this may seem a small percentage, trade facilitation can also result in an overall improvement in the world trade environment (Kim and Park, 2005).

Trade facilitation involves the recognition and reduction of trade barriers, including barriers due to a range of different standards and requirements. It can be argued that trade facilitation is a substitute for migration: when administrative trade barriers are high, skilled migrants residing in the importing country can act as agents to deal with ‘red tape’. High transaction costs due to technical trade barriers are likely to particularly impact on developing country exporters who may not have the skills and resources to deal with these barriers (Saner and Fasel, 2003). When the barriers are removed, both exports and imports between host and migrant source countries will increase but the need for these types of services provided by expatriates is diminished. The presence of an expatriate population is likely to lead to greater imports ‘from home’ to that host country in any case. This issue will be explored further in Section 4.1.

3.2 *Services trade and migration*

There is increasing recognition of the importance of liberalising the services sector, which often comprises a very significant part of a country’s economy and continues to face high barriers to international trade. The introduction of GATS in 1995, as discussed in Section 2.1 of this report, is clear evidence of this. Some estimates suggest that trade liberalisation of the service sector would offer much more significant gains than liberalisation of international goods trade (e.g., Dee and Hanslow, 2000). Services trade has become an important engine of world growth, and despite the large barriers faced, it has grown faster than world merchandise trade over the past two decades (Hufbauer and Stephenson, 2007).

Negotiation issues in the services sector have particularly significant implications for the movement of labour. Karsenty (2000) attempts to decompose the services trade volume into the four GATS modes of supply. Using 1997 data, Karsenty finds that 41 percent can be attributed to mode 1, 19.8 percent to mode 2, 37.8 percent to mode 2 and only 1.4 percent to mode 4. While these are ‘very rough

estimates' the temporary movement people under mode 4 is clearly a very small contributor to the overall value of services trade. This relatively low level of mode 4 services trade is due to the many barriers in place and there are potentially large gains to be made from liberalising people movement (Winters et al., 2003). As Iredale (2000) explains '[g]lobal labour markets now exist in a range of occupations, and a person's skills are their greatest assets to be bought and sold'.

GATS mode 4 is concerned with the movement of 'natural' persons for the purpose of providing services, therefore viewing the restricted movement of people as a barrier in exporting services rather than an issue of immigration (Walmsley and Winters, 2005). There exists quite an extensive literature on GATS mode 4, as introduced in Section 2.1. Much of the literature discusses the lack of progress under GATS, with Ng and Whalley (2005) going so far as to suggest that a new body should be specifically created for global negotiations on visas and work permits (see also Pasquetti, 2006). The overall conclusion of the literature on services and the movement of people is that there has been very little liberalisation in this area and that there are potentially many gains to be made. Trade in services cannot prosper if the movement of people is not promoted (Walmsley and Winters, 2005; Chaudhuri, et al., 2004; Ghosh, 2005).

While trade in services using mode 4 is not very wide-spread at this stage, and most countries stand to gain from freeing up the movement of natural persons, the challenge is to negotiate how the movement of natural persons should occur. Winters (2003b) notes that practical implementation of mode 4 liberalisation is very sensitive and it will be difficult 'to convince immigration officials that mode 4 does not undermine border integrity, or labour officials that mode 4 does not undermine labour law or local job markets.' Mattoo (2003) classifies the main barriers to trade in services under mode 4 into three broad categories: immigration issues, particularly visa-related barriers; discriminatory treatment of foreign providers of services; and inadequate recognition of qualifications. Winters (2003b) suggests four specific procedural issues that need to be resolved: social security contributions; the classification of occupations; the recognition of qualifications and certification and the codification of economic needs tests. He argues that countries need to carefully consider how to balance the economic gain with political sensitivities.

While GATS is largely concerned with the movement of skilled labour, Walmsley and Winters (2005) argue that freeing up the movement of unskilled labour offers even larger potential gains. Their very innovative study employs a version of the well-known Global Trade Analysis Project (GTAP) general equilibrium trade model. Results from the Walmsley and Winters study suggest that even a small quota increase of 3 percent for both skilled and unskilled workers in developed countries could increase world welfare by US\$156 billion.¹⁰ Only \$46 billion of this is due to increasing the international mobility of skilled workers, whereas increasing the international mobility of unskilled workers leads to a welfare gain of \$110 billion. They compare the assumed small increase in immigration quotas of 3 percent to removing all the remaining restrictions on goods trade. The latter is estimated to increase global welfare by US\$104 billion. This leads to the conclusion that benefits from increasing efforts in liberalising both skilled and unskilled labour movements may be significantly larger than the benefits that can be realised from goods trade

¹⁰ Welfare in this context is defined by an equivalent variation (EV) in income, with EV being the change in income that is equivalent in its effect on people to the policy change being simulated.

liberalisation. This conclusion is consistent with other studies summarised by Hatton (2007).

World Bank modelling suggests significant economic gains for migrants themselves, as well as for origin and destination countries when there is increased migration from developing to high-income countries (World Bank, 2006). This research calculates gains that are more than double those suggested by Walmsley and Winters (2005). The World Bank estimate is supported by more recent estimates by Walmsley et al. (2005b) using a dynamic version of the GTAP model and an updated database. Walmsley et al. (2005b) conclude that their earlier work may well have significantly underestimated the gains from migration liberalisation.

Although allowing unskilled workers into host countries will potentially lead to the most significant economic gains, most legally admitted immigrants are relatively highly skilled. For example, immigrants in Australia are twice as likely to have a university degree as locals are. In the United Kingdom, 60 percent of migrants entering the country are professionals (Freeman, 2006a). This brings about the 'brain drain' concern which will be addressed in Section 5.1 of this report.

Manning and Sidorenko (2007) examine for the ten ASEAN countries the barriers to migration of professionals, with a particular focus on the healthcare and IT sectors. The authors evaluate these regulations by putting the countries into three groups in terms of their stage of development, as defined in terms of per capita income and industrial structure. The overall finding is that within ASEAN the intensity of regulation is broadly inversely related with development, while the intensity of migration tends to be positively related to the level of economic development. The more developed countries (mainly Singapore, Brunei and Malaysia) have more liberal policies for immigration of health professionals and other high skilled migrants. Some countries in the ASEAN group have more open regimes for the movement of temporary migrants in the IT sector in comparison to healthcare, where professional bodies regulate the industry. In several countries, the restrictions on foreign professionals severely limit the access of such professionals to such potential host countries. The authors recommend 'streamlining visa and work permit regulations for professionals across the region (including short-term entry of independent service providers); improved education and professional standards (for example, using the recent APEC and ASEAN initiatives to examine nursing standards and develop a regional Mutual Recognition Agreements in nursing); overcoming the language barrier to mobility by allowing foreign-trained doctors and nurses employed in export-oriented hospitals to be exempt from the language tests for temporary registration purposes; promotion of industry self-regulation and certified training programmes in IT; and a more systematic approach to data collection on international stocks and flows of professional manpower' (Manning and Sidorenko, 2007). Multilateral trade in healthcare services is also extensively analysed in a recent book edited by Blouin et al. (2006).

3.3 Migration and new technology

Technology both affects and is affected by the movement of people. Modern communication technologies, such as email and the internet, lower the costs that migrants face to keep in touch with their relatives and friends, and help them to remain informed about their home country (e.g., McCann and Poot, 2008). This increases the proportion of the population that would contemplate migration. On the other hand, migrants are also a channel for the international transfer of technology themselves. For example, professional migrants may bring with them new processes

and innovative ideas that can contribute to productivity growth (Hoekman et al., 2005). To date, however, very little systematic research has been undertaken on how immigrants affect innovation and productivity growth in specific sectors (Poot, 2008).

Because R&D expenditure in service sectors is growing faster than in goods production (Gera et al., 2005), there is growing demand for professionals at the high-technology end of service provision that may be partially met by immigration. One example is the information technology (IT) sector, discussed in the previous section, which undertakes a great deal of R&D and continues to grow very rapidly. This has resulted in the increased demand for skilled and knowledgeable immigrants in this sector (e.g., Coppel et al., 2001). However, not only highly developed countries have expanding IT sectors but some developing countries are also rapidly catching up. For example, India has put significant resources into developing software and related services. Although it took some time to reap the rewards, these have now become very large (Hoekman et al., 2005). The repatriation of systems engineers, programmers, etc. leads to knowledge transfers back to the original migrant source country.

While migrants can be a transmission channel for the international transfer of new knowledge and practices, new information and communication (ICT) technologies can also substitute for migration flows. The increased sophistication of IT hardware and software makes the e-labour concept more feasible than ever before. Internet-based services in particular represent a new frontier of services trade, with significant opportunities and challenges (Hufbauer and Stephenson, 2007). Professions such as software engineering, data entry, translation services, and distance teaching are all examples of sectors where knowledge-intensive services can be exported without 'exporting' the workers. India is the most commonly cited case, with its many call centres providing services for other countries (Gera et al., 2005). This concept of outsourcing was introduced in Section 3.2.

So far in this report, we have considered the issue of trade and immigration as one of relative production factor abundance. Developing countries have abundant labour and tend to 'specialise' in exporting either that labour or labour-intensive goods. Developed countries can similarly specialise in exporting capital or capital-intensive goods. Such patterns only hold for production sectors where the available technology is similar across countries. When countries have superior technologies they can have a monopoly in the world market for goods and services produced with such technologies. Such a monopoly improves the terms of trade of such countries in that export prices increase relative to import prices. Davis and Weinstein (2002) argue that an influx of immigrants into a technologically superior country may remove the significance of this 'leadership' and lead to a fall in the terms of trade and a welfare loss for the migrant-receiving country (also see Findlay, 1982). Davis and Weinstein use the United States as an example and observe that technological superiority in this country coincides with inflows of all production factors, not just labour. In this case a further inflow of labour leads to welfare losses to the receiving country and gains to the sending country (also see Commander et al., 2003).

A general conclusion from this and previous sections is that there are many theoretical perspectives on the links between international migration and other forms of international interaction. Conclusions drawn from theoretical models in this area are rather sensitive to the assumptions used and the overall direction of any causal links can only be established by careful empirical analysis.

3.4 Foreign direct investment

Just as in the case of international trade, investment agreements and foreign direct investment (FDI) flows will also impact on, and be impacted by, the movement of labour internationally. Gross foreign direct investment as a percentage of GDP averages 8.8 percent in the world, but the post-1990 growth has been phenomenal (Poot, 2004, Table 1.1).¹¹ Globalisation and trade agreements played important roles. For example, in the NAFTA area, investment in Canada by the US more than doubled; US investment increased in Mexico fourfold; and Canada and Mexico more than doubled their investments into the US. In addition to this, integration between Canada-US and US-Mexico financial markets was enhanced, mainly due to mergers and new corporate subsidiaries across each others borders (Durán, 2003; Hufbauer and Schott, 2004).

Flows of goods, investment and labour were traditionally seen as substitutes. However, it is becoming increasingly clear that countries wishing to attract FDI need to ensure an adequate supply of professional workers (Chia, 2006). To invest across borders there is a need to have knowledge of that market, in addition to monitoring the investment activities. This creates the need to have people in the foreign markets to take up management positions that will oversee activities and make decisions. In addition, FDI may trigger temporary movement in the form of business trips and (semi)-permanent movement in the form of intra-corporate transferees. International investment flows are often followed and facilitated by skilled migrant flows (Gera et al., 2005; Freeman, 2006a). Therefore, FDI can be a complement to, as well as substitute for, the movement of people.

Guellec and Cervantes (2001) suggest that some FDI may flow to countries where there is skilled labour available, but at a globally competitive wage. Examples are Israel and India. At the same time, the presence of high-skilled immigrants may cause an inward flow of FDI as well (Ivlevs, 2006). Thus, people movement and FDI may be complementary flows in both directions. However, Gera et al. (2005) argue that if multi-national enterprises relocate facilities to another location for the purpose of gaining access to cheaper labour (the main driver of the 'hollowing out' of, e.g., the Japanese economy referred to earlier), then people movement and FDI may be substitutes.

More generally, however, trade liberalisation and foreign direct investment are strongly related. If FDI and migration are on balance complements rather than substitutes, trade liberalisation will increase the volume of migration between countries that intensify their economic integration (Gera et al., 2005). Again, the issue of substitution versus complementarity can only be resolved by careful empirical analysis. Kugler and Rapoport (2007) argue that FDI and migration substitute one another in the international matching process between workers and firms. On the other hand, migrants provide information about future investment opportunities in their country of origin. Kugler and Rapoport (2007) provide evidence from U.S. data that is consistent with contemporaneous substitutability and dynamic complementarity between migration and FDI.

3.5 Bilateral negotiations in theory

Negotiation or bargaining is a form of strategic interaction that can often be better understood by so-called game-theoretic models that have become very popular in

¹¹ FDI of a country is here measured as the sum of the absolute values of inflows and outflows, not just the inflows.

economic theory since the publication of von Neumann and Morgenstern's (1944) *Theory of Games and Economic Behavior*.¹² However, this approach has had as yet surprisingly little application to the issue of how countries decide unilaterally or multilaterally about admitting foreign citizens to become residents of their own territory.¹³ An important issue in this context is the nature of the payoff function: the translation of policies and actions into the estimated net benefits to the citizens of a country. Trade and migration are in this context not seen as achieving similar goals. Greenaway and Nelson (2006) argue that trade policies are essentially about material wellbeing while immigration policies are much more complex. We have already noted earlier in this report that trade and migration policies are administered in any case by different government departments.

Luterbacher and Theler (1994) apply a game-theoretical model to analyse the decisions made by governments on restricting migration, taking into account possible tradeoffs and effects on other countries. Luterbacher and Theler consider the standard case of production by means of labour and capital inputs. They consider two stylised countries, one from the North and the other from the South. Both countries aim to maximise their own welfare. The North's welfare is positively affected by its GDP and by revenue from capital exported to the South; and negatively affected by remittances of Southern immigrants, and by these immigrants becoming too numerous (due to declining wages and diminishing social cohesion). The South is likewise positively affected by its own GDP, and also by the inflow of remittances, but negatively by the payments to capital owned by the North, by the presence of too many North-owned firms and by too much unemployment. It is intuitively clear that in this situation autarky (i.e. closed borders for capital and labour) is not optimal. There are some gains to both countries from opening up the border to some extent.

The contribution of Luterbacher and Theler (1994) is that they show in theory that it is not certain that migration and foreign direct investment will be permitted. A so-called *Prisoner's Dilemma* may occur, in which both countries know that they would benefit from co-operation but each country has an incentive to cheat on any joint agreement, leading to a stable outcome (referred to as the Nash equilibrium) that is not optimal for either country.¹⁴ This stable outcome is a closure of the border to migration and capital flows. The fact that in practice some migration and foreign direct investment is permitted can be explained in game theory by the fact that the bilateral negotiation between the North and the South does not occur just once, but is repeated over many years. In that case, an agreement to co-operate to have open borders is more likely to be stable.¹⁵

Besides migration negotiations between governments of countries, there can also be game-like negotiations between the government and various lobby groups within a country. Facchini and Willmann (2005) present a 'factor protection' game, in which domestic interest groups support a democratically elected government dependent on the extent to which the government is willing to protect the interests

¹² For an accessible introduction to game theory, see for example Osborne (2004). Correa (2001) provides a non-technical introduction to the use of game theory as an instrument for the analysis of international relations.

¹³ There is, however, some literature on how game theory can be generally used to analyse trade negotiations. See, for example, Harrison and Rutström (1991).

¹⁴ The Prisoner's dilemma received its name from a simple two-person game in which two prisoners who have committed a crime would both benefit from pleading innocence (in which case the case against them cannot be proven), but the attraction of plea bargaining is too large and both will succumb to the sub-optimal strategy of pleading guilty.

¹⁵ This result is also shown theoretically by Luterbacher and Theler (1994).

(usually income) of that group vis-à-vis other groups. Nash equilibria can be determined for such games. Governments have in such strategic games the option to either restrict inflows (capital or immigrants) or impose tariffs (essentially imposing a tax on immigrants). Facchini and Willmann demonstrate that these policies have theoretically identical impacts.

4 The impact of migration on trade

In the previous section of this report, we reviewed how trade flows may impact on migration. Here, we look at the reverse causality, that is, how migration may trigger changes in international trade in goods and services. In sub-section 4.1 we consider the impact of migration on trade flows generally. Section 4.2 focuses on migration-induced tourism and Section 4.3 considers migration-induced exports of educational services.

4.1 Immigrants and trade

Much of the literature in this area concludes that migration may foster or create trade between host and home countries (see, e.g. the references found in Bryant et al., 2004). There are various ways through which this can occur. Firstly, we reviewed in Section 3.2 estimates of the impact of migration liberalisation on global GDP. Higher global income would trigger a greater demand for traded goods and services. Secondly, the presence of immigrants in a country may have trade-inducing effects. Dunlevy and Hutchinson (1999) note that immigrants throughout history have seen opportunities for trade. This may be because of cost differences, product differentiation and the migrants' tastes. High-skilled migration, in particular, tends to create well-educated diaspora who facilitate trade by helping to enforce contracts, act as intermediaries, and expand cooperation (World Bank, 2006).

The literature agrees on two main mechanisms by which migrants themselves influence trade flows between the respective home and host countries. These are immigrant preferences and a lowering of transaction costs. Firstly, if immigrant numbers from a particular area are large enough, then this may create a significant demand for goods which are unique to their home country. That is, it is believed that immigrants have a demand for home-country products. This will lead to increased imports in the host country. Secondly, transaction costs are lowered as immigrants will have knowledge of their home countries markets, business practices and laws. In some cases immigrants' home countries will have a different language to the host country. Immigrants being bilingual will lessen the communication barriers. Immigrants may also make use of their connections or networks from their home country. This reduction in transaction costs can lead to both greater exports from the host country to the immigrants' home country and imports into the host country of home country goods and services (Gould, 1994; Dunlevy and Hutchinson, 1999; Girma and Yu, 2000; Combes et al., 2003; Bryant et al., 2004).

Girma and Yu (2000) break down the reasons for a lowering of transaction costs into either individual-specific or non-individual-specific mechanisms. The individual-specific mechanisms are thought of as being 'universal', where for example transaction costs are reduced by using the individual immigrant's business or personal connections with their home country. Non-individual-specific, or 'non-universal', mechanisms reduce transaction costs for example as the immigrant brings in additional knowledge in regard to their home countries markets and cultural norms.

This knowledge is of higher benefit to the host country when the home country's markets or customs are significantly different to those of the host country.

Migrants often have a social or business network in their home country which may be used in the host country. Combes et al. (2003) conduct a study in France that looks at the effect of cross-border networks on trade. Their data refer to networks across state borders in France rather than international networks. However, their findings are likely to extend to international borders. Social networks in an area are derived from the make-up of the local labour force in terms of birth place, and the business networks in terms of inter-plant connections. Combes et al. find that network effects are stronger for medium to large distances compared to shorter ones. They also find that intra-national administrative borders matter significantly in France for determining trade patterns, and the magnitude of this effect is of a similar size to that found between states in the United States (Wolf, 2000). The authors find that including social and business networks in their model helps to reduce the border effects. In addition to this, the transport costs of interregional trade fall by about 60 percent because of networks. These effects are found in almost all industries (Combes et al., 2003).

The effects that ethnic Chinese networks have on international trade have been studied by Rauch and Trindade (2002). An important characteristic is that the ethnic network provides enforcement of sanctions in the face of a weak international legal environment. For example, if an agreement is violated by a business then this business may be blacklisted, meaning that everyone in the ethnic Chinese network will cease to deal with them; this is sometimes worse than being sued. Economically, ethnic Chinese networks have a more positive impact when goods are differentiated rather than homogeneous. These networks also help bilateral trade as they have market information, matching and referral services. For example, producers may be helped in finding a distributor for their products, or a supplier of the right component. A possible substitute to these networks is to set up private intermediaries. However, the Chinese networks already exist and establishing new intermediaries would be costly.

It is clear that the impact of migrants on trade will become less when migrants become more integrated into the host economy. Their role as trade facilitators for exports to their home country will be most effective if they remain in regular contact with the home country and are aware of developments there that may influence trade. Similarly, their impact on imports from the home country will be greater, the longer they desire culturally and ethnically linked goods from 'back home'. So again a paradox arises (see also Section 3.1): while from the perspective of social policy it is highly desirable that immigrants become economically and socially integrated into the host society, the benefit of their presence in terms of trade facilitation is greater the less integrated they are.

Epstein and Gang (2006) formulate a theory that explicitly models the role that immigrant assimilation plays in international trade. In their model, competition from migrants may lower the wages of the host population so that the native born are likely to discriminate against the migrants by, for example, introducing barriers to employment. Migrants can avoid discrimination by rapid integration. However, migrants who specialise in trading with their home country benefit from the maintaining of cultural identity. Epstein and Gang argue that in such a setting it may be optimal for migrant traders to 'invest in anti-assimilation activities' in order to preserve immigrants' preferences for home country goods.

One way in which migrants can affect trade indirectly is through remittances. These will allow developing countries to import more than otherwise (World Bank,

2006). However, if there are large increases in the number of skilled immigrants in non-traded sectors of host countries, such as healthcare, this will cause the price of non-traded goods to decline relative to the price of traded goods. In this case there could be a reduction in exports from the host country to the developing countries that could offset the remittances effect on imports into the developing countries to some extent (World Bank, 2006). Bryant et al. (2004) further argue that if migrant groups become large then they may start producing home-country products in the host country. This could result in a fall in exports from the home country of certain types of goods, which could partially offset the positive income effect of the remittances.

In an interesting econometric study that tries to quantify the impact of immigrant stocks on international trade, White (2007) estimates that, for the US at least, the impact is driven by immigration from relatively low income countries. His estimates suggest that a 10 percent increase in the immigrant stock will generate a 4.7 percent increase in imports from, and a 1.5 percent increase in exports to the typical low income home country. White refers to the two main drivers as the 'transplanted home bias' effect of immigrants preferring home country products and the 'network effects' of reduced transaction costs (which may increase both exports and imports). His estimates suggest that the average low income country immigrant increases annual imports from their home country by up to US\$2057 due to transplanted home bias effects and by between US\$910 and US\$2967 due to network effects. Perhaps of even greater interest to the destination country are that these network effects increase exports to the immigrant's home country by US\$910 (White, 2007).

It is clear that export effects of immigration are smaller than import effects from the perspective of host countries. This observation of White's study has also been generally confirmed the earlier empirical literature. For example, Ching and Chen (2000) provide evidence for the case of Taiwanese migrants to Canada where the impact on Canadian imports from Taiwan was much larger than the impact on Canadian exports to Taiwan.

Bryant et al. (2004) point out a possible gap in the literature: no studies seem to have focused on the effect of migrants on the exports of services, 'even though migration could plausibly lower transaction costs for trade in services in the same way that it lowers costs for trade in goods'. Such exports of services could of course also lead to increases in temporary migration between the home and host countries. In the next section we consider a specific form of export of services, namely consumption abroad of tourism services (mode 2 of GATS).

4.2 Migration induced tourism

Tourism can be defined as being short-term in nature, that is, a person who is a tourist intends on returning to the home country within days, weeks or months. Tourists do not visit places intending to become a permanent resident, or to become employed in paid work (Williams and Hall, 2000). International tourism is also defined as the temporary movement of people for vacations, holidays, visiting family or friends and also business trips. In 2004 it is estimated that there were about 760 million international tourist arrivals worldwide. This number has more than tripled since 1970 (Freeman, 2006a). Using an analysis of nine Caribbean countries, te Velde and Nair (2006) conclude that GATS negotiations can be effective in attracting inward FDI in these tourism-driven economies.

Migration may also induce tourism flows, in part due to friendship and kinship networks. That is, migrants may attract more tourism into the host country, while they themselves may also become tourists when they return to their 'home' country to visit

friends and family. Therefore, alongside inflows of migrants there is a possible tourism inflow of visiting friends or relations (Williams and Hall, 2000). This shows that there is a flow-on effect starting with the movement of people caused by trade factors, which then leads to increased tourism in the country. Thus, in the case of skilled labour, the receiving country will receive both the benefit of the labour and the tourism of friends and relations. Furthermore, Williams and Hall (2000) point out that tourism itself may also generate subsequent migration flows.

Tourism is experienced in its natural place, that is, it cannot be transferred spatially and it is sometimes time-specific. This means that the labour force in the tourism sector must be where the tourism services are consumed and may also be needed only at particular times of the year. It may not be possible for the tourism industry to rely on local labour as the scale of demand may be relatively large, and the development of tourism may be sudden. For these reasons a country may have to rely on immigrants to fill job vacancies in the tourism sector (Williams and Hall, 2000).

4.3 Migration induced exports of educational services

Apart from the flow of temporary workers between countries, an increasingly important flow is that of international students. Gera et al. (2005) note that educational services are becoming increasingly global. This has come about through the movement of students internationally and also through the collaborating efforts between tertiary institutions across national borders. In 2004, there were approximately two million international students in the world, with the largest number studying in the United States (about 573,000).

In Australia education is the third largest services export. It is believed that Australia does not differentiate itself on academic content, but rather on price, location (as an Anglo-American system which is on the edge of Asia), safety and climate (Marginson, 2007). New Zealand needs to continue to differentiate itself from the United States, the United Kingdom, Canada and also Australia in order to attract foreign students and to increase its share in the world export of education.

Education services are covered under GATS commitments. However, Larsen et al. (2002) provide a summary of issues and negotiating positions in education under GATS and note that this was one of the sectors covered by GATS for which WTO members were least likely to commit to liberalisation. The relative lack of integration of education in the GATS is evidenced at this point by only 5 of the now 150 plus WTO members having proposed commitments for higher education under the GATS. It is suggested that this trade framework was not designed to deal with higher education (Czinkota, 2006).

Nevertheless, the lack of commitments and progress under GATS has not prevented dramatic changes occurring in global education services. Sauvé (2002) argues that this is likely to continue, in part because the trade policy framework may not be the best means of tackling constraints to further internationalisation of education services. Saner and Fasel (2003) agree that the intensification of higher education has been quite independent of trade within the WTO/GATS context. They also argue that a balance needs to be achieved between 'legitimate requests for consumer protection and sovereignty rights by governments to pursue higher education' without closing market access to foreign providers.

5 Benefits and costs of migration

There exists an extensive literature on the benefits and costs of migration and it is outside the scope of the present study to comprehensively review all dimensions of the costs and benefits of both temporary and settler movement for sending and receiving countries.¹⁶ In this section we briefly review studies that survey this topic, with the emphasis on those costs and benefits that negotiators may need to take into account in trade negotiations that are linked to migration.

The basic economic perspective is simple. Migration enables human resources to locate to where they are most productive. The migrants benefit from this (through higher incomes), the sending countries benefit (through increasing the marginal product of labour and therefore wages of those left behind) and the receiving countries benefit (through the so-called immigration surplus that accrues to the owners of capital and the workers with skills complementary to immigrants, see Borjas, 1999a). While sending and receiving countries benefit in aggregate, there will be a redistribution of income that will make some people better off and others worse off. The distributional impact of immigration may be much larger than its net aggregate impact. This explains why it is very difficult to reach a political consensus on immigration.

Chia (2006) contends that while labour migration poses more benefits than costs for both sending and receiving countries, there are far more sensitivities toward labour movements than toward trade and capital flows. Given that stakeholders are diverse and may include workers, employers, unions, multinational companies and governments, it is not surprising to find evidence of a range of different perceived benefits and costs or risks. For example, the international mobility of workers may have consequences for skilled-unskilled wage differentials. There may also be regional economic impacts and issues.

There are many potential mutual benefits for both source and destination economies with the international movement of people, including augmentation of the gains from trade and investment liberalisation. Increased movement of people can in principle enhance inter-country linkages, raise investment flows, facilitate technological transfers and increase productivity. Migration may also encourage trade in goods, services or overseas investment, as research reviewed in the previous section has indicated.

However, despite these potential benefits, a range of concerns about negative impacts from the movement of people persist. These concerns depend, in part, on whether the country is a source or destination economy, and the level of development of the economy. Perceived dangers in source countries may include losses of skills, less local demand, less investment and a smaller tax base. In the destination economy, perceived adverse impacts on the domestic labour market may be a key issue, with expected job losses and lower wages for some locals often being an area of concern. Besides the economic impact, there may also be concerns related to security, social cohesion and crime. Further concerns relate to issues such as labour standards and the illegal movement of people.

¹⁶ For detailed overviews, see for example in the US context Smith and Edmonston (1997) and Borjas (1999b); in the UK context Glover et al. (2001); and in the Australian context Productivity Commission (2006). In New Zealand, a Department of Labour co-ordinated 2005-08 research programme will update earlier research by Poot et al. (1988). Poot and Cochrane (2005) review and compare international and New Zealand research up to 2004.

As discussed earlier, if the restrictive immigration policies of receiving countries, such as the US, Canada, Australia, EU and Japan were to be lifted then world GDP would likely rise and international wage inequality is predicted to fall (Freeman, 2006a), although intra-country inequality may increase. Zhao and Kondoh (2007) argue that employers in some sectors and union workers may be negatively affected. The impacts will differ depending on the extent of imperfect competition in the host economy (Chao and Yu, 2002).

Table 3. Consensus Economic Benefits and Costs of Immigration

BENEFITS	COSTS
<ul style="list-style-type: none"> • Expansion of GDP in the short-run through increased aggregate demand • Higher GDP per capita growth in the long-run through accelerated investment • Sectoral effects <ul style="list-style-type: none"> ○ Private sector growth ○ Growth in traded goods sectors ○ Growth in sectors where immigrant employment is high • Accelerated technological change through greater investment and the technology transfer by professional immigrants • Economies of scale • Increased competitiveness • Slowing down of ageing of population <ul style="list-style-type: none"> ○ Decreased expenditure on health and welfare per capita • Lower rate of unemployment • Labour market flexibility increased • Lower cost of acquiring highly specialised human capital that is expensive to train domestically • Economic benefits of cultural diversity • Remittances are a form of development aid • Refugee resettlement meets humanitarian and economic goals • Increased global networking • Increased tourism earnings • Assists in solving labour shortages 	<ul style="list-style-type: none"> • Short-run inflationary pressures • Lower affordability of housing in main cities • Short-run deterioration of the trade balance • More youthful population leads to an increase in education expenditure per capita • Greater pressure on natural resources • Urban congestion • Potentially harmful to biculturalism or potentially eroding the Māori position in Treaty of Waitangi issues • Brain-drain from LDCs, but partially offset by maintaining links with diaspora • Increase in foreign ownership of capital • Widening of the urban-rural gap • The emergence of migrant enclaves, discrimination and the erosion of social cohesion • Lower wages and/or loss of employment opportunities for some native born workers and earlier migrants who are similar to new migrants • Uneven distribution of the economic benefits, leading to growing spatial diversity and personal inequality • Security concerns and immigration-linked crime • Less policy influence on population size, composition and dynamics in the presence of illegal immigration, visa-free migration, or overstaying of temporary migrants

A summary of itemised costs and benefits is provided in Table 3.¹⁷ On balance a consensus is emerging in the literature that the *economic* impact of immigration is fairly neutral and quantitatively small compared with other economic ‘shocks’.

International migration changes the size of the populations in sending and receiving nations, and therefore the *scale* of the economy in those countries. It can also affect the growth of population (and therefore growth in the scale of the economy) if immigrants have different demographic characteristics (fertility, mortality,

¹⁷ This table provides a subjective assessment by the authors of this report based on the reviewed international literature. It is not intended to suggest that all empirical studies confirm the listed impacts.

migration) from the host population. The effect on income per head is, however, likely to be minor (see, e.g., Gera et al., 2005). This is directly linked to the fact that the labour market impact will be small also (see Longhi et al. 2005a; 2005b for reviews). Card (1990) found that a short and sharp immigration wave, the Mariel boatlift of Cubans into Miami which increased the Miami labour force by as much as 7 percent between May and September 1980, had virtually no negative consequences for low-skilled blacks living there (who would be competing with the Cuban immigrants for jobs) although housing did become more expensive (Saiz, 2007).

The impact of immigration on housing costs and prices generally is an issue that has not yet been as well researched as the impact on wages. In the short-run immigration is expected to be inflationary, because migrants increase aggregate demand from the day of arrival, whereas we would expect aggregate supply to take time to adjust unless inventories are large. Housing is an important component of household expenditure and the increase in house prices and rents following an immigration wave will contribute to an increase in the Consumer Price Index (CPI). In the long-run immigration lowers the price level, because of the resulting increase in labour supply. CGE model simulations confirm this (e.g. Poot et al., 1988).

In a recent paper, Lach (2007) appears to contradict the consensus that immigration is inflationary in the short run. Lach finds that a wave of Former Soviet Union migrants into Israel in 1990 lowered prices across settlement cities there. He argues that the reasons are, firstly, the lower incomes of the migrants and, secondly, their more intensive search for bargains. It should be noted that Lach's study, importantly, excludes the price of services, including housing and transportation. Nonetheless, the CPI in Israel in 1990 was 17 percent higher than in 1989, while CPI inflation in the previous year was 20 percent (CBSI, 2007), i.e. higher before the immigration shock. The extent to which these Israeli results are unusual or internationally representative remains to be established.

Given that the macro impacts of immigration are generally economically benign, research in recent years is moving towards micro evidence of specific mechanisms, such as the links between immigration and entrepreneurship, labour market flexibility, remittances, migrant enclaves, the demand for public services, etc. (see Table 3). In addition, the debate on immigration is focussing increasingly on the absorption capacity in terms of social cohesion and wellbeing. Such social impacts are naturally much harder to quantify.

5.1 Brain drain or circulation?

From the perspective of international relations, a significant argument put forward for slowing down the global liberalisation of the labour market is the brain drain concern. The 'brain drain/brain gain' debate has continued for the past 40 years, with some irresolvable disputes and unenforceable policy recommendations (Vinokur, 2006). The concerns for developing countries tend to be most pronounced, with fears that national economic development may be adversely impacted by the loss of the most skilled workers. Nonetheless, some developed countries such as Canada also have concerns, with skilled workers flowing to the US. A loss of skilled workers is also a concern in the debate about trans-Tasman migration that at regular intervals of about five years (primarily linked to business cycles in Australia and New Zealand) leads to significant net movement of New Zealanders to Australia, with presently about 10 percent of the New Zealand population living in Australia (Poot and Sanderson, 2007). The brain drain is believed to widen the economic growth differential between

sending and receiving countries and make it harder for the migrant sending country to 'catch up' (Bushnell and Choy, 2001; Gera et al., 2005).

There is some empirical evidence of significant adverse brain drain impacts. For example, skill depletion in the sending country is evident in the case of the Philippines where the success in exporting nurses, particularly the best educated and most experienced, created a major crisis in the delivery of healthcare in the country (Chia, 2006).¹⁸ Empirical evidence of the brain 'drain' or 'gain' issue has also been studied by Baruch et al. (2007) in the context of management studies students from developing countries undertaking study in the UK and US. The authors find that only 30.5 percent of the foreign students intend to go back to their home countries when they finish their university education, while initially very few students had the intention to stay permanently. In addition, about 40 percent of students believe they will stay for a considerable amount of time. The study found that the main factors that influence whether students leave or stay are: the perception of the labour market in the host country, students' adjustment process to the host country, and family ties of the students in both host and home countries. Furthermore, it was found that those students from countries that have a greater cultural distance with the developed country, such as China, Taiwan and Thailand, are more likely to return home. It was found that those from India are likely to stay in the host country longer as they have a smaller cultural distance, due to the 'British Raj' phenomenon.

If a brain drain problem exists, then this can be alleviated by embracing the 'brain exchange' or 'brain circulation' concept. This will help to alleviate the increasing demand for skilled labour along with helping the economies of all the countries involved. An exodus of workers might alleviate labour skill shortages in labour-importing countries, while leading to a short-term brain-drain for the donor countries. However, there will be remittances in the short-term and in the long-term there may be some reversal of the brain drain, particularly with improvement in economic conditions. In addition, increasing flows of FDI requiring skilled professionals may result in significant labour mobility from developed to developing countries, as well as flows among developing countries (Chia, 2006). The brain circulation will also result in knowledge spillovers, bringing benefits to both sending and receiving countries. Spillovers come from higher innovation, productivity and growth across industries (World Commission, 2004; Gera et al., 2005; Welch and Zhen, 2005).

As discussed earlier, skilled workers may need assistance and incentives to move between countries, for example through gaining dual citizenship, multiple entry visas or tax breaks. An aspect that needs to be taken into account during trade negotiations is therefore the ease with which migrants can return to their home countries and this is especially important in the poor country case. The idea here is that of 'skill circulation' between countries. A possible consideration is that of dual citizenship, which needs to be approved by both sending and receiving countries. This would mean that people can very easily re-enter both countries. Another way would be to look at tax or other monetary incentives, which will encourage the return of workers to their home country (World Commission, 2004).

It should be noted that as incomes increase globally, professional workers may trade off the potentially higher earnings in major agglomerations in developed countries against a better quality of life in more peripheral places. In the global

¹⁸ The Philippines is certainly seeing the movement of natural persons to the US as an important element of free trade negotiations with the US (see, e.g. Tullao and Cortez, 2006).

competition for highly skilled migrants (also now commonly referred to as ‘talent’), countries like New Zealand cannot compete on wages, but do recruit skilled immigrants attracted to a higher non-material quality of life. DeVoretz and Iturralde (2001) make a similar argument for why skilled workers might prefer Canada over the US.

5.2 Wage and employment effects

The impact of increased migration on wages and employment will depend on a number of factors, including the share of foreign workers in the economy, the elasticity of substitution between capital and labour, and also the elasticity of substitution between native and foreign workers (World Bank, 2006). Most attention is given to the negative effects on wages and employment due to immigration. The recurring arguments are that immigrants may compete in labour markets with the native-born workers, native workers may be displaced, or real wages may be pushed down (Friedberg and Hunt, 1995).

Mayda (2006) investigates immigration attitudes across countries and provides evidence that both economic and noneconomic factors matter in terms of explaining attitudes to immigration. She finds that skilled individuals tend to favour immigration in countries where native workers are more skilled than immigrants. This is not surprising, given that attitudes are likely to be shaped by the impact on factor prices of relative changes in factor supplies when immigration occurs. Relatively scarce factors typically command higher returns and, assuming that skilled and unskilled workers are complements, an inflow of unskilled labour will raise the relative wages of skilled workers (Mayda, 2006).

In an important study, Borjas (2003) finds evidence that immigration harms employment opportunities of the native-born workers in the US to some extent. He finds that a 10 percent supply shock, due to immigrants, reduces weekly earnings by approximately 4 percent. Borjas does point out some caveats to his findings. Firstly, his analysis did not look at the long-run capital adjustments which may have been caused by immigrants and capital-skill complementarities may be important. Moreover, high-skill workers (such as scientists and high-tech professionals) may have been an important factor in endogenous technological change. It can also be argued that the Borjas study clearly identifies the impact of the supply shock, but does not take account of the change in aggregate demand, nor a range of other responses (such as investment and inflows of capital, and the migration of natives) that can only be studied in a large scale general equilibrium model.

In a subsequent study, Borjas (2005) looks at the effect that Ph.D. immigrants have on the labour market for Ph.D.’s in the US, and finds that a 10 percent increase in the supply of immigrant doctorates in a given field causes the earnings in the field to fall by 3 percent. However, a study by Weiss (2000, as cited in Freeman, 2006b) on the effect that highly educated immigrants in Israel, finds that the flow of such immigrants from the former Soviet Union had no noticeable impact on the labour market outcomes of the skilled workers born in Israel.

Positive effects of immigration on wages are found by Parasnis et al. (2005) in their study of Australia’s experiences. Their findings suggest significant and positive changes for native workers resulting from immigration: a 10 percent supply shock causes a 1 percent increase in hours worked and a 3-4 percent increase in weekly income. They also test for consistency of the effect over time, and find that this holds, mainly because immigration levels had not changed significantly over time. Similarly,

an important study by Ottaviano and Peri (2006) finds positive effects of immigration on wages of most US born workers.

It is argued that migration can create additional job opportunities, because migrants may increase demand in local markets (e.g., Bodvarsson et al., 2007). However, immigrants often have higher unemployment rates than the local workers, because immigrants are sometimes unable to take jobs from locals and obtain a fair wage when existing workers are entrenched in the labour market (Harrison, 1984). Miller and Neo (2003) find that immigrants in Australia have a 12 percent disadvantage in wages and also experience unemployment rates in their first year that are significantly higher than those of their native-born counterparts (see also Thapa, 2004).

The World Bank's global modelling of a three percent increase in the labour force of high-income countries, due to migrants from developing countries during the period 2001-2025, finds a small decline in average wages for high-income countries but a 'barely perceptible' impact on the long-term growth of wages (World Bank, 2006). This highlights the importance of differentiating between level and growth rate effects. As noted earlier, while migration can generate significant economic gains, opposition to migration is often driven by concerns about the social and political consequences rather than an economic calculation of gains and losses (World Bank, 2006).

Friedberg and Hunt's (1995) extensive survey concludes that the literature does not support the argument that immigration has adverse impacts on wages and employment in the host economy. Their survey considered cross-sectional approaches, time-series approaches, wage inequality and growth. The theoretical literature on immigration and growth and subsequent empirical research has found conflicting evidence. Friedberg and Hunt (1995) therefore argued that more work is needed in this area. Longhi et al. (2005a) provide a more up to date review of the international evidence on the wage impact of immigration by means of a meta-analysis. In a subsequent meta-analysis, these authors study the impact on employment (see Longhi et al., 2005b). These syntheses of available empirical evidence suggest that the impact of immigration on wages and employment is small.

5.3 Source country impacts

Selected Benefits

Persons moving from developing countries often send back remittances to their families. In countries such as the Philippines and Mexico, remittances officially outweigh overseas development aid. Hugo (2005) presents estimates of remittances relative to trade flows and shows that remittances may be extremely important, even though they will be underestimated since funds transferred informally are not included in available statistics. Remittances were equivalent to over 20 percent of the value of exports in the case of the Philippine economy. Also, there is an increasing trend towards temporary movement and, as noted earlier in this report, returnees may bring back new skills, knowledge, and contacts that can be of considerable benefit to the home country (see also Welch and Zhen, 2005). A developing country could also make the possibility of FDI by developed countries a bargaining point in trade negotiations. Additional FDI will create additional employment opportunities in the labour market of the developing country, which may in turn lead to less emigration (Gera et al., 2005).

Selected Risks

Freeman (2006a) considers the situation of a decline in the supply of labour through emigration. This should raise the wages of substitute workers for the migrants who have left. Furthermore, production factors which are complements to the migrant workers who left will experience a reduction in income, meaning that the income of the source country may fall. In his model however, remittances are not taken into account. A range of other risks to the source country also exist, including loss of professional skills, as discussed previously. On the other hand, the possibility of emigration of skilled workers can raise the overall level of investment in human capital in developing countries. In turn, this can have a positive impact on the long-run growth rate of these countries (e.g., Kanbur and Rapoport, 2005).

5.4 *Host country impacts*

Selected Benefits

A problem faced by many OECD countries is an ageing population. In addition to this, people in some OECD countries seem to be retiring early, with less than half of the people aged between 55 and 64 being employed. Immigrants are predominantly younger workers and can therefore help alleviate a labour shortage resulting from population ageing (Coppel, et al., 2001; Freeman, 2006a). It should be noted, however, that the fundamental cause of population ageing is below replacement fertility. If migrants also have low fertility rates, population ageing may accelerate in the long run at the time at which large immigration flows are no longer considered desirable (e.g. Poot, 2008).

Immigration can also help to alleviate labour shortages, especially in seasonal work, such as kiwifruit or apple picking and tourism. In this case it may be beneficial for the host country to allow temporary movement of unskilled labour, so that seasonal unemployment is mitigated (Coppel, et al., 2001). This issue is discussed further in Section 6.1.

Selected Risks

Freeman (2006a) notes that immigration replaces one set of pressures on the public sector (the fiscal impact of population ageing) with others (such as increasing demand for education services generated by migrant children). There is also a risk of falling wages for some workers and greater wage inequality when the current supply of labour is increased due to immigration, as discussed earlier. Much of the additional income in the country may accrue to the immigrants themselves and to the owners of capital. Furthermore, immigrants tend to cluster in ethnic communities, where they will often experience greater social costs due to unemployment compared to the local population. This clustering may result in tension between the new immigrants and the native population and between new immigrants and the more established migrant population. Furthermore, the concentration of such unemployment may become rooted into the ethnic community, resulting in a poverty cycle from which it may be difficult to escape (Coppel et al., 2001).

5.5 *Maximising the benefits and minimising the costs of migration*

There exist a number of ways to help maximise the benefits and minimise the problems caused by the trans-border movement of people. For example, in some situations there may be benefits to both host and source countries from temporary

migration. It has also been argued there may be benefits from applying some kind of ‘tariff’ to migrants. We will consider both policies in turn.

Temporary migration programmes have been around for some time in many different forms. There is now renewed interest in their expansion because of the perceived benefits over more permanent forms of migration (Abella, 2006). Temporary migration may offer many of the benefits of immigration but without the costs (e.g., World Bank, 2006; Winters, 2003b). In the source country, financial and knowledge benefits should be higher if suppliers of services abroad return home to contribute to their own communities in the longer term (Mattoo, 2003). In the host country, there may be lower social tensions, a limited burden on public expenditure and the opportunity for controlled variation in response to labour market conditions (World Bank, 2006). These types of advantages make liberalising temporary admissions politically much easier to sell to populations who may feel threatened by more permanent immigration (Abella, 2006).

The disadvantages of temporary migration may include: higher training costs; no guarantee of future access to labour markets or workers; and some disincentive for workers to develop region-specific skills, including language skills (World Bank, 2006). It may also be the case that some countries have difficulty in controlling ‘temporary’ labour movements. For example, facing widespread unemployment during the Asian financial crisis, some governments tried to wean their economies off foreign labour, but without much success (Chia, 2006). In addition, temporary workers are human beings who may grow attached to their host country, or find partners among the host population, and therefore desire to permanently settle with their families. This consequence of the guest worker schemes of the 1960s and 1970s in Western Europe, which was unanticipated at the time, led to social tensions arising from the absence of policies that would have facilitated integration and the greater acceptance of multicultural societies.

While temporary labour movements appear to offer significant potential gains to participating countries, care will need to be taken. Current temporary workers policies aim to provide better incentives and institutional arrangements to increase the effectiveness of temporary migration as an instrument for alleviating labour market shortages. Abella (2006) offers a set of guidelines proposed as offering a ‘best practice’ approach to managing temporary migration: these guidelines range from forecasting and managing demand for labour through to agreements that better organise labour and protect workers rights. Winters (2003b) suggests that the biggest concern raised by the temporary movement of workers is likely to be the competitive challenge to local unskilled workers. However, this ‘challenge is no more imposing than that presented to such workers by imports of labour-intensive goods from developing countries, which has been overcome by the weight of economic gain that trade can deliver’. Winters argues that policies are needed to ease adjustment among local unskilled workers (Winters, 2003b).

With respect to applying some kind of ‘tariff’ to international labour movements, Chang (1998) applies international trade principles to trade in labour services and argues that the United States should eliminate immigration quotas and barriers and move to using immigration tariffs instead. This appears to follow the general principle that improved transparency is preferable to obscured barriers; it may also facilitate clear and substantive reduction in barriers over time. Chang’s analysis suggests that skilled and unskilled immigration should be permitted without restriction, but that unskilled immigration should be subject to an effective immigration tariff, perhaps in the form of a special income tax and less generous

fiscal treatment. Chang (1998) argues that reciprocal liberalisation of services trade could help to overcome political obstacles, facilitating more liberal movement of labour into the United States.

6 Lessons for New Zealand

Section 2 of this report focused on international economic agreements of particular relevance to New Zealand. However, Sections 3 to 5 were much more international in focus, examining the impact of trade and FDI on migration, and vice versa, and a short review of some key benefits and costs of migration. In the current section, we revisit these topics with a focus on the literature and issues of particular relevance to New Zealand.

International trade agreements can provide an important platform for bargaining across issues (Banda and Whalley, 2005). The importance of linking complex and interacting negotiations in different areas of international relations is becoming increasingly clear (Crump, 2007). In New Zealand, good examples are visa-waiver agreements and working holiday arrangements that are negotiated in the broader context of bilateral relations, including trade. Bedford and Lidgard (1998) provide examples of 1990s foreign policy initiatives in New Zealand with respect to relations with Asian countries that had both people movement and trade dimensions.

6.1 The impact of trade and FDI on migration

Goods and Migration – Substitutes or Complements

Before CER, at the time when commodity trade faced significant restrictions, labour migration would have been able to substitute for some of the trade in commodities. Protected industries faced labour shortages that were addressed by active immigration policies. Hence rather than importing certain manufactured goods to meet increasing domestic demand, import substitution industries recruited foreign workers.

Similarly, rather than exporting certain goods and services to Australia, New Zealand may have exported some of its workers. This substitution effect is likely to have been of minor importance. Historically, real wage differentials were not large and throughout the period of relatively high trade restrictions, trans-Tasman migration remained relatively balanced. By 1966, there were about 52,000 New Zealanders born living in Australia and 43,000 Australians born in New Zealand. Subsequent trade liberalisation did not reduce migration but instead increased it because the much lower productivity of New Zealand's manufacturing led to significant job shedding during the 1984-94 reform decade once protection was removed. By 2006, the number of New Zealand born in Australia had increased to 389,000 while the number of Australia born in New Zealand increased to a mere 63,000. However, with Australia being more capital intensive, the flow of capital would have been towards New Zealand (where the rate of return to new investment would be higher) as is evidenced by Australian ownership of many large New Zealand companies (see also Nana and Poot, 1996). Two thirds of migration from Australia to New Zealand consists of New Zealanders returning, but Australia born migrants are likely to be professionals whose

trans-Tasman migration is linked to the presence of Australian companies and Australian ownership of New Zealand companies.¹⁹

Services

Walmsley et al. (2005a) model bilateral migration flows in the Pacific region resulting from possible liberalisation under GATS mode 4 negotiations. They assume a 1 percent increase in the quotas of skilled and unskilled labour from the Pacific Islands into Australia and New Zealand, with results suggesting that the resultant labour force increases in Australia and New Zealand would raise welfare in both countries. While Pacific economies could gain from the movement of unskilled workers, loss of skilled workers could lead to welfare declines for those that remain, in the absence of capability building efforts. These kinds of estimates of the income gains from migration and the consequent labour flows could be improved by comparing the earnings of the immigrants to what they would have earned in their home country (Gibson, 2006).

An issue of particular significance to New Zealand is the relatively high need for seasonal workers. The service that these migrants provide cannot usually be substituted by other modes of supply, unless activities are moved overseas. For example, consider fruit pickers and shearers (Bell and Ward, 2000). In Central Otago, vineyards and orchards needed about 4000 workers in the summer 2005/06, of which 3000 positions had been filled by migrant workers. The New Zealand government alleviated this demand by implementing a fast-track work permit policy. Furthermore, a Worker Holiday Scheme also allows for 30,000 young overseas persons to come to New Zealand for seasonal employment, lasting up to six months (Fea, 2005).

For seasonal workers, bilateral labour agreements have become very important, with several hundred such agreements currently existing (World Bank, 2006, p. 73). Such agreements can improve confidence and certainty in origin and destination countries and New Zealand is making increasing use of these kinds of agreements. For example, due to ongoing labour shortages in the horticulture and viticulture industries, the government has recently launched the Recognised Seasonal Employer (RSE) Work Policy, which seeks to facilitate the temporary entry of overseas workers in these industries. Work includes planting, maintaining, harvesting and packing crops in the horticulture and viticulture industries. The RSE Work Policy is currently capped at 5000 places annually, though this can be adjusted in response to market demand (DOL, 2007). Workers under this scheme are able to stay in New Zealand for seven months during any 11 month period.²⁰ The RSE Work Policy gives preferential access to workers from the Pacific, as this policy is also trying to encourage economic development, regional integration and good governance within the region (MFAT, 2007).²¹ Among other conditions, employers are required to guarantee a minimum number of hours of work, ensure workers are paid the market rate and provide pastoral care including suitable accommodation, translation, transportation, opportunities for religious observance and recreation, and induction to life in New

¹⁹ Alternatively, they may be Australia born children of New Zealanders, returning after residing some years in Australia.

²⁰ Nine months for workers from Tuvalu and Kiribati (DOL, 2007).

²¹ New Zealand has a history of offering special concessions for immigration from Pacific nations. In particular, there is a Samoan Quota scheme for up to 1,100 Samoans and the Pacific Access Category (PAC) which allows up to 250 nationals from Tonga, 75 from Kiribati and 75 from Tuvalu, to become permanent residents if specific criteria are met (Stahl and Appleyard, 2007). These policies are rather unique, with Stahl and Appleyard (2007) commenting that they “cannot think of another developed country that admits migrants as a part of its perceived duty to assist their economic development”.

Zealand. Like all immigration policy, RSE Work Policy is designed to ensure employment opportunities for New Zealanders are put first, and employers have strong incentives to train and upskill the domestic workforce and utilise unemployed labour before looking to the RSE.

A potential problem with policies that free up the temporary movement of labour is the possibility of overstayers. However, the New Zealand government is clearly aware of this issue, for example incorporating requirements such as a return ticket (of which the employer pays half) and the need for applicants to show they genuinely intend a temporary stay in New Zealand when applying for entry under the RSE Work Policy (DOL, 2007). Nadkarni (2006) provides several specific suggestions to alleviate the overstaying problem, including holding some of the earnings in an interest bearing account which the worker will receive on departure and for employers to supply guarantees for the workers.

Technology

The e-labour concept may be of particular interest to New Zealand, given our geographic isolation. This is a possible way of expanding the local economy. As noted by Hufbauer and Stephenson (2007), internet based services are a new frontier of services trade and there will be significant opportunities and challenges for New Zealand in this area. In addition, the internet may help New Zealand increase the export of educational services, through selling distance education abroad.

FDI

The New Zealand Government supports a strategy of developing international ties, including both inward and outward FDI. Furthermore, the government does not generally discriminate against any country. The Index of Economic Freedom confirms this, showing New Zealand as one of the countries most open to FDI, along with Singapore, Hong Kong, Sweden, the Netherlands, Ireland and Luxembourg (Heritage Foundation, 2006). Nevertheless, the promotion of inward investment has received more attention by the Government than outward investment. In China, New Zealand's proportion of the FDI stock is at most 0.001 percent (MFAT, 2007). However, the recent investment of Fonterra in the dairy sector in China is an example of how economic growth is affecting 'offshore' activities of New Zealand companies. This will have migration implications also. Investment may in the future become an increasingly two-way street, with implications for the movement of labour to service and support this increased globalisation of investment.

Side agreements

New Zealand negotiators have made use of side agreements in the past, e.g. using the framework of the Environment Cooperation Agreement and the Labour Cooperation Memorandum of Understanding (MFAT, 2007). In section 2.3 we noted the skilled worker side letter and working holiday arrangement agreed in the New Zealand-China FTA. While these were of limited significance in terms of the number of workers involved, the future may bring much greater scope for the development of side agreements on a range of issues, including labour movement. The dynamic interactions between agreements will need to be recognised and carefully managed.

6.2 The impact of migration on trade and FDI

In Section 4.1 we reviewed several empirical studies that confirmed that immigrants have a positive impact on trade. The presence of immigrants from a particular source

country is likely to be associated with the presence of significant bilateral trade with that country. Both imports and exports are affected and we noted that the consensus of the literature is that the effect on imports of a given increase in the stock of immigrants is greater than the effect on exports. However, such analyses typically only capture short-run effects. Sanderson (2004) argues that immigrants can be a means of knowledge transfer, which enables a country to adopt more easily the latest technological innovations. This may stimulate both process and product innovations that in the long run could make the effect of immigration on exports exceed that on imports. Such a long run effect is, however, hard to identify empirically.

Using New Zealand international trade data, Bryant et al. (2004) demonstrate that the impact of New Zealand immigration on trade is consistent with the international evidence. While there are noticeable selection effects (whether or not there is trade with a country at all, is linked with whether or not there is immigration from that country), the elasticity of the relationship between migrants and trade is greater for imports than for exports.

Migration induced education and tourism are likely to be of particular relevance to New Zealand. This suggests that New Zealand should be active in its negotiations on these areas to maximise the potential benefits. The tourism industry has grown dramatically in both New Zealand and Australia, which has led to a need for developing tourism training programmes (Williams and Hall, 2000; Statistics NZ, n.d.). In New Zealand this has led to the setting up of tourism education facilities such as Sir George Seymour College have been set up and also there has been increased significance of tourism studies in universities. International educational markets have also undergone rapid development in recent years and we have previously discussed the rapid rise, and subsequent fall, in international student numbers in New Zealand (see Bedford and Ho, 2006).

6.3 *Benefits and costs of migration*

As discussed in Section 5, the international movement of people brings many potential mutual benefits for both source and destination economies. Some of these benefits are directly linked to trade, as noted above.

In many countries, including New Zealand, a significant proportion of the resource costs of education are funded through government taxes. This subsidy is linked to the public benefits of education. Therefore government and its taxpayers have an interest in reaping the public return on this investment. However, when migrants go overseas they take their accumulated education with them and New Zealand may thereby effectively subsidise economic growth in other countries. Furthermore, New Zealanders can receive subsidised health care and can qualify for superannuation. If they go overseas then they avoid the New Zealand taxes which fund these activities but they may later return to New Zealand, making use of the health care and superannuation, and thereby imposing costs on New Zealand taxpayers (Bushnell and Choy, 2001). Given the increased mobility of the population, government have responded to this issue through international sharing of some social security costs. For example, the public pension in Australia and New Zealand is funded by contributions from both countries in proportion to the time worked in each country.

Research reported in Carmichael (1993) and by Bushnell and Choy (2001) suggests that emigration from New Zealand to Australia occurs across the full range of occupations. While there have been greater emigration rates in some occupations than in others, Bushnell and Choy argue that there is little evidence of a brain drain in

New Zealand. This is because immigrants have substituted for emigration of New Zealanders, and a high skill level has been the one of the most important immigrant selection criteria, particularly in recent years. International migration statistics show that New Zealand lost, in net terms, about half a million citizens to other countries during the last thirty years, but replaced these emigrants with some 700,000 citizens of other countries who settled in New Zealand. Bushnell and Choy (2001) confirm that the skill distribution of departing New Zealanders has not changed greatly, but that those that are arriving are becoming increasingly more skilled. In addition, most of the people leaving are in the 15-24 year age group and those arriving are in the 25-39 year age group, i.e. with greater labour market experience.

People are increasingly becoming more internationally mobile, especially younger people who may benefit from development of their skills, incomes and careers. The student loan scheme has also encouraged university graduates to move temporarily overseas in order to accumulate savings at a faster rate than would be possible in New Zealand, and thereby increasing their ability to repay the loan faster. For some migrants, particularly in knowledge intensive professions, there is the potential of earning much higher incomes, for instance doctors, nurses, scientists, engineers and consultants (Gera et al., 2005). Professional migrants, however, may be faced with the problem that their qualifications are not recognised and that they therefore cannot apply for certain jobs. This is a further barrier which must be overcome in order to effectively liberalise world labour markets and it is a barrier that may affect people moving to and from New Zealand. As discussed earlier, the TTMRA is an agreement alongside CER which has effectively removed this barrier in trans-Tasman migration. However, development of such agreements needs to be continued and expanded in coverage so that the movement of people is not unduly hindered by unrecognised qualifications. There are of course political difficulties to be overcome, particularly when professional groups have vested interests in limiting entry into their professions, and there may be issues associated with the compatibility of qualifications.

6.4 Gaps in the literature and potential areas for future research

As previously noted, literature that integrates international trade negotiations and the movement of people is relatively sparse. This may reflect the limited negotiations on movement of people within trade agreements and it may also reflect the fact that some of these negotiations remain confidential (particularly in bilateral and regional agreements). In addition, the international movement of people is a politically sensitive topic in most countries, and it may be difficult to negotiate access to a country's labour market by those charged with trade negotiations, given the complexity of the issues and difficulty in assessing the potential trade-offs.

In this context, it is useful to point out that GATS is unlikely to have a major impact on immigration policy for several reasons. Firstly, GATS is only concerned with temporary movement. Secondly, the Most Favoured Nation (MFN) clause is unlikely to be acceptable to countries in this context. Under MFN, discrimination between trading partners is not allowed and any more favourable concessions granted must be extended to other WTO members. Thirdly, once agreements are made these are difficult to reverse and countries will wish to maintain flexibility to adjust future immigration policy in response to changing domestic conditions.

Nonetheless, it is likely that developing countries seek access to New Zealand's labour market as a condition for opening their own markets to goods trade and professional services supplied by New Zealanders. Such negotiations are more

likely to be on a bilateral than multilateral basis. There may be particular pressure to cover permanent labour movements, since some temporary work policies are already covered under existing arrangements.

There exists limited quantitative modelling of the economic impacts of international migration flows, particularly for New Zealand.²² There is also very little modelling that simulates the likely impact of trade agreements that include increased movement of people. The Global Trade Analysis Project (GTAP) database and dynamic model could be used in conjunction with a new international bilateral migration database (Parsons et al., 2005; Walmsley et al., 2005c) to undertake significant new modelling in this area. While Walmsley et al. (2005a) present a very interesting paper with some results for increased labour movement under mode 4 of GATS for the Pacific and Australasia, the authors are clear in their warning that this work currently has significant limitations and further research in this area is required.

Given current interest in liberalising temporary migration, more rigorous studies of the relationships between trade and FDI and patterns of international migration are needed (Manning and Bhatnagar, 2004). Extending global modelling work to cover negotiations and scenarios of particular interest to New Zealand would be very useful. Also, the relative benefits and costs of outsourcing and immigration should be compared.

In analysing the impact of bilateral trade negotiations and immigration, the New Zealand situation is rather unusual because of the importance of trans-Tasman population movement. While highly cyclical, this movement has, since the late 1960s, been predominantly in the direction of Australia as noted earlier in this report. One of the main causes has been average economic growth and employment growth in Australia exceeding that of New Zealand. Further research on trade negotiations by Australia and New Zealand with other countries and their implications for international migration with such countries, as well as within Australasia, is obviously another topic that would be of interest to New Zealand.

A central issue in discussion of trade negotiations, immigration and services provision under GATS mode 4 is the extent to which any liberalisation will increase the share of GDP that is exported and improve New Zealand's productivity growth. Both export growth and productivity growth have been disappointing in recent years and these outcomes are clearly linked. Export-led growth is a long established recipe for improved long-run economic performance. Similarly, the recruitment of skilled 'talent' from abroad is seen as another means of improving productivity growth. However, the link between these policies has not yet been investigated thoroughly.

Finally, it is clear that the most rapid growth in international labour movement in the years to come is that of temporary labour movement. Earlier in the report we noted that this development is encouraged from the perspective of immigration policy as it provides more flexibility and effective pathways to subsequent permanent settlement. It is clear that more research is needed to design policies to maximise the potential of temporary worker schemes and to provide incentives to minimise potential social costs. Again, the likelihood that further temporary movement agreements would be negotiated under GATS mode 4 is still to be investigated further.

²² A three year research programme, funded by the Cross-Departmental Research Pool (CDRP) and coordinated by the Department of Labour will be completed in 2008. This research programme covers a range of topics, such as labour market, housing, fiscal and productivity effects of immigration. The various sub-projects will also inform simulations with a multi-sectoral CGE model of the New Zealand economy.

With respect to the movement of business people, this likelihood is small. Countries such as New Zealand already impose few barriers on the short-term movement of business people. The establishment of 'offshoots' of foreign firms in the services sector under GATS mode 3 is likely to trigger an associated need for temporary migration of intra-corporate transferees. Existing arrangements already accommodate such movement, so that GATS mode 4 is not essential to negotiation in this context.

7 Conclusion

While flows of goods, services and investment have made some significant headway in the WTO and regional agreements, the same can not be said for the movement of labour, particularly of unskilled workers (Chia, 2006). This bias against people movement seems to be reflected in public opinion and in discrimination against migrant groups. For example, Mayda (2007) used survey data and found that opinions across a range of countries are generally more pro-trade than pro-immigration. Greenway and Nelson (2006) explain this by noting that trade is predominantly about short-run material consumption whereas migration generates a range of externalities over a long period of time. Despite the large potential gains from labour market liberalisation, there are often concerns about adverse labour market impacts for certain groups of native workers, concerns that immigrants may impose net burdens on public finances, as well as possible social and political aversion to increasing immigration (Mayda, 2007). Hatton (2007) suggests, however, that while public opinion may be less receptive to liberalisation of migration than trade, the key impediment to liberalisation of migration is the lack of a basis for reciprocity in negotiations.

Nonetheless, given the greater flexibility of temporary migration schemes and the advantage of work to residency schemes, this review suggests that there may be an advantage in expanding the scope and use of GATS mode 4 policies in trade negotiations. However, given the current international environment, such negotiations are likely to be on a bilateral basis rather than as an outcome of the Doha round. Whatever evolves, it must be recognised that mode 4 will always be too restrictive to replace immigration policy. In any case, the concerns and interests of various government departments in this area do not always intersect. Consequently, progress will probably require strong leadership, including at the ministerial level. It should be kept in mind that concessions under temporary entry may be bi-directional. In the New Zealand context, a trading partner may seek greater access to the market for unskilled labour (say, in seasonal employment), whereas professional New Zealand workers might seek access to the market for professional services in the partner's economy. This simply reflects typical labour movements between developing and higher income countries. The export of educational services in particular is likely to remain a promising area, with growth in developing country incomes and a strong appetite for international education.

While labour-exporting countries may be keen to lower the barriers to the movement of their workers, such countries typically have asymmetrical policies. Inward labour movements in these countries typically face a much tighter regulatory environment than do international flows of goods and investments. Developing countries that may encourage the emigration of their citizens are not always themselves open to immigrants from elsewhere. Furthermore, movements of lower-

skilled workers are generally viewed as particularly sensitive, even though significant gains are possible (Chia, 2006). Keely (2003) notes that immigration policy should be viewed more along the lines of trade policy, with a movement from a protectionist approach to a more open approach. He argues that trade, competitiveness and employment policies are 'inextricably tied into migration to a degree beyond what existed before the expansion of globalization' (Keely, 2003). However, the counter argument is that multilateral trade negotiations have a more than 50 year history, while migration has typically been a national policy issue and the movement of people raises a host of additional challenges, including social and cultural integration that trade agreements may not be well positioned to address (World Bank, 2006).

The largest gains may be from allowing labour mobility between very diverse countries (Winters, 2003b). Hatton (2007) argues that international migration is driven by absolute rather than comparative advantage. Hatton therefore suggests and there is 'no basis for WTO-style negotiations over migration and therefore no grounds for reforming the international architecture in the hope of fostering liberalization' (Hatton, 2007). Therefore, although large potential gains from liberalising migration could be realised through improved cooperation along the lines of what the WTO has done for trade, this is not likely to happen in the view of Hatton, unless a specific way forward can be forged. Hatton suggests that explicit linking of immigration policy to other policy issues and agreements may be useful. Crump (2007) also emphasises the importance of this issue-linkage in negotiations.

Bilateral or regional approaches could serve to build trust, certainty and improved management schemes that could later act as stepping stones to multilateral deals (World Bank, 2006). Again this emphasises the complex and interacting dynamic linkages that negotiators will need to be able to deal with effectively. Countries will typically prefer the flexibility to choose the conditions and countries from which labour may flow and they may be reluctant to agree to the WTO principle of MFN treatment (Chia, 2006). Therefore regional agreements seem particularly important and they are of course increasing in relevance even for trade negotiations, particularly given the current setbacks for the WTO negotiations. Nonetheless, regional arrangements will bring their own set of problems which are well-documented in the international trade literature.

Increasing pressures may open countries to more serious discussions on migration agreements. For example, as the Japanese economy finds itself increasingly short of unskilled workers (given its rapidly ageing population) it may consider options that were previously unpalatable. Interestingly, the movement of natural persons is included as a 'major element' in draft agreements between Japan and the Philippines and Thailand (Yamagata, 2006). Juxtaposing people movements with other elements of a regional trade agreement seems much more attractive to the Japanese who can see clear benefits accruing from liberalisation in other areas and this policy change 'is truly remarkable in the sense that previously Japan had not shown any interest in the introduction of foreign semiskilled workers' (Yamagata, 2006). This seems to be a good example of issue-linkage and finding a way forward through complex, interacting and sometimes one-way streets.

The current state of the economic environment in both origin and destination countries tends to determine the key areas of opportunity and concern. For instance, in emerging economies unskilled workers may seek opportunities abroad, while in rich countries there may be strong demand for skilled labour. There will be strong international competition for attracting 'talent'. Comparative advantage arises with differences between economies – leading to important gains from trade and possibly

also the movement of people. New Zealand's ability to attract foreign talent is more likely to be linked to the desire of skilled migrants to improve their lifestyles rather than to increase their incomes. However, comparative advantage is dynamic and the implications of this for the movement of people will change over time for any given economy.

The Productivity Commission (2006) provided in the Australian context an extensive discussion of the many ways in which immigration affects the economy. Any quantification of the impact requires then the use of a large scale model of the economy that bring the myriad influences together. This was the approach adopted by the Productivity Commission and is also the approach adopted in the current New Zealand research programme on the economic impacts of immigration, co-ordinated by the Department of Labour.²³ Consequently, in cases where access to the domestic labour market is negotiated as part of bilateral foreign policy initiatives, it should be kept in mind that a quantitative assessment of the impact requires the use of such a large scale model, such as the Monash model of Australia, or the GTAP model of the world. This would facilitate an assessment of the impact in a way that can take account of the many and intricate ways in which both temporary and permanent migrants can affect the economy.

Finally, we must emphasise that from the policy perspective these issues cannot be fully addressed within a purely economic framework. In this report we highlighted the paradox of diversity. Economic theory suggests that the economic benefits of opening up borders to trade or immigration are at their largest, the more different the countries are. In addition, greater labour mobility helps to facilitate trade and increases the cross-border demand for domestic output. It is argued by some, as noted earlier, that from the perspective of trade, economic integration is not as desirable as the nurturing of cultural diversity. From the social perspective, however, it has become clear that social cohesion and the accumulation of social capital are not natural outcomes in increasingly diverse societies, but require resources to be allocated to the promotion of desirable social outcomes. Thus, the social evaluation of greater cross-border mobility resulting from greater international economic integration must go hand in hand with the economic assessment.

²³ See also footnote 17.

References

- Abella, M. (2006). Policies and best practices for management of temporary migration. *International Symposium on International Migration and Development*, Turin, Italy, 28-30 June 2006.
- Asia-Pacific Economic Cooperation (APEC). (2006). Retrieved October 17, 2006, from www.apec.org
- Australia Chamber of Commerce and Industry (ACCI). (2002). Retrieved October 12, 2006 from <http://www.acci.asn.au/>
- Banda, O.G.D. and Whalley, J. (2005). Beyond goods and services: competition policy, investment, mutual recognition, movement of persons, and broader cooperation provisions of recent FTAs involving ASEAN Countries. NBER Working Paper No. W11232, National Bureau of Economic Research.
- Bardhan, A. D. and Kroll, C. (2003). The new wave of outsourcing. Paper 1103, Fisher Center for Real Estate and Urban Economics, University of California.
- Baruch, Y., Budhwar, P.S. and Khatri, N. (2007). Brain drain: Inclination to stay abroad after studies. *Journal of World Business*, 42, 99-112.
- Bedford, R. and Ho, E. (2006). Foreign students and skilled temporary workers as immigrants: the New Zealand perspective. Paper for the 8th National Metropolis Conference, Vancouver, March 25.
- Bedford, R. and Lidgard, J. (1998). Visa-waiver and the transformation of migration flows between New Zealand and countries in the Asia-Pacific Region, 1980-1996. In: L. Book-Thong and T. S. Bahrin (eds.) *Vanishing Borders: The New International Order of the 21st Century*, Ashgate, Aldershot.
- Bell, M. and Ward, G. (2000). Comparing temporary mobility with permanent migration. *Tourism Geographies*, 2(1), 87-107.
- Bhagwati, J., Panagariya, A., and Srinivasan, T.N. (2004). The muddles over outsourcing. *Journal of Economic Perspectives*, 18(4), 93-114.
- Bhatnagar, P. (2004). Liberalising the movement of natural persons: a lost decade? *World Economy*, 27(3), 459-472.
- Bhatnagar, P. and Manning, C. (2005). Regional arrangements for mode 4 in the services sector: lesson from the ASEAN experience? *World Trade Review*, 4, 171-199.
- Blouin, C., Drager, N., and Smith, R. (eds.) (2006). *International Trade in Health Services and the GATS: Current Issues and Debates*. World Bank, Washington, D.C..
- Bodvarsson, Ö.B., Lewer, J.J. and Van den Berg, H. (2007) Measuring immigration's effects on labor demand: a reexamination of the Mariel boatlift. IZA DP 2919, IZA Institute for the Study of Labor, Bonn, Germany.
- Borjas, G.J. (1999a). The economic analysis of immigration. In: *Handbook of Labor Economics*, edited by O. Ashenfelter and D. Card: North Holland. pp. 1697-1760.
- Borjas, G.J. (1999b) *Heaven's Door: Immigration Policy and the American Economy*. Princeton University Press.
- Borjas, G.J. (2003). The labor demand curve is downward sloping: re-examining the impact of immigration on the labor market. *Quarterly Journal of Economics*, 118(4), 1335-1374.
- Borjas, G.J. (2005). The labor market impact of high-skill immigration. *American Economic Review*, 95(2), 56-60.

- Bowen, H., and Wu, J.P. (2005). Trade and immigration: does it matter where immigrants work? *Canadian Economics Association*, 39th Annual Meeting Paper Presentation.
- Breuss, F. (2001). Macroeconomic effects of EU enlargement for old and new members. Working Papers No. 143, WIFO.
- Bryant, J., Genç, M., and Law, D. (2004). Trade and migration to New Zealand. Working Paper No. 2004/18, New Zealand Treasury, Wellington.
- Bushnell, P. and Choy, W.K. (2001). 'Go west, young man, go west!?' Working Paper No. 2001/07, New Zealand Treasury, Wellington.
- Business Mobility Group. (2006). Retrieved October 17, 2006, from www.businessmobility.org
- Carbaugh, R.J. (2007). Is international trade a substitute for migration? *Global Economy Journal*, 7(3), 1-13.
- Card, D. (1990). The impact of the Mariel boatlift on the Miami labor market. *Industrial and Labor Relations Review*, 43, 245-257.
- Carmichael, G.A. (1993). *Trans-Tasman Migration: Trends, Causes and Consequences*, AGPS, Canberra.
- Central Bureau of Statistics Israel (CBSI) (2007). http://www1.cbs.gov.il/reader/cw_usr_view_SHTML?ID=424
- Chanda, R. (2003). Social services and the GATS: key issues and concerns. *World Development*, 31(12), 1997-2011.
- Chang, H.F. (1998). Migration as international trade: the economic gains from the liberalized movement of labor. Working Paper No. 166. Stanford Law School, John M. Olin Program in Law and Economics.
- Chao, C. and Yu, E.S.H. (2002). Immigration and welfare for the host economy with imperfect competition. *Journal of Regional Science*, 42(2), 327-338.
- Chaudhuri, S., Mattoo, A., and Self, R. (2004). Moving people to deliver services: how can the WTO help? *Journal of World Trade*, 38(3), 363-392.
- Chia, S.Y. (2006). Labor mobility and East Asian integration. *Asian Economic Policy Review*, 1, 349-367.
- Ching, H.S. and Chen, L.L. (2000). Links between emigrants and the home country: the case of trade between Taiwan and Canada. In: H. Kohno, P. Nijkamp and J. Poot (eds) *Regional Cohesion and Competition in the Age of Globalization*. Edward Elgar, Cheltenham UK.
- Collins, W.J., O'Rourke, K.H., and Williamson, J.G. (1997). Were trade and factor mobility substitutes in history? NBER Working Paper 6059, National Bureau of Economic Research.
- Combes, P., Lafourcade, M., and Mayer, T. (2003). Can business and social networks explain the border effect puzzle? Working Paper No. 2003-02, Paris, *Ventre d'Etudes Prospectives et d'Informations Internationales (CEPII)*.
- Commander, S., Kangasniemi, M. and Winters, L.A. (2003). The brain drain: Curse or boon? IZA Discussion Paper No. 809, Institute for the Study of Labor, Bonn.
- Coppel, J., Dumont, J., and Visco, I. (2001). Trends in immigration and economic consequences. OECD working paper No. 6059, OECD Economics Department.
- Correa, H. (2001). Game theory as an instrument for the analysis of international relations. *Ritsumeikan Annual Review of International Studies* 14(2), 187-208.

- Cowling, K. and Tomlinson, P.R. (2001). The problem of regional 'hollowing out' in Japan: lessons for regional industrial policy. Warwick Economic Research Papers No 625, University of Warwick.
- Crump, L. (2007). A temporal model of negotiation linkage dynamics. *Negotiation Journal*, April, 117-153.
- Czinkota, M.R. (2006). Academic freedom for all in higher education: the role of the general agreement on trade in services. *Journal of World Business*, 41(2), 149-160.
- Davis, D. and Weinstein, D. (2002). Technological superiority and the losses from migration. NBER working paper No. 8971, National Bureau of Economic Research.
- Dee, P. and Hanslow, K. (2000). Multilateral liberalisation of services trade. Productivity Commission Staff Research Paper, Ausinfo, Canberra.
- Department of Foreign Affairs and International Trade Canada (DFAIT). (2006). Retrieved October 14, 2006, from www.dfait-maeci.gc.ca
- Department of Foreign Affairs and Trade Australia (DFAT). (2005). Retrieved October 19, 2006, from www.dfat.gov.au
- Department of Labour (DOL) (2006). Migration Trends 2005-2006. Immigration Research Programme, Department of Labour, Wellington.
- Department of Labour (DOL) (2007). Labour Market Strategy, retrieved December 2007 from www.dol.govt.nz/initiatives/strategy/res/index.asp
- DeVoretz, D.J. and Iturralde, C. (2001). Why do the highly skilled stay in Canada? *Policy Options*, 59-63.
- DRCMGP (2005). GATS Mode 4: how trade in services can help developing countries. Briefing Paper No. 4, Development Research Centre on Migration, Globalisation and Poverty, University of Sussex.
- Drezner, D.W. (2004). The outsourcing bogeyman. *US Foreign Affairs* retrieved November 7, 2006 from www.foreignaffairs.org
- Dunlevy, J.A. and Hutchinson, W.K. (1999). The impact of immigration on American import trade in the late nineteenth and early twentieth centuries. *Journal of Economic History*, 59(4), 1043-1062.
- Durán, C.R. (2003). NAFTA: Lessons from an uneven integration. *International Journal of Political Economy*, 33(3), 50-71.
- Dustmann, C. and Glitz, A. (2006). *Immigration, Jobs and Wages: Theory, Evidence and Opinion*, Centre for Research and Analysis of Migration, University College London.
- Epstein, G. and Gang, I. (2006). Ethnic networks and international trade. In: F. Foders and R.J. Langhammer (eds) *Labor Mobility and the World Economy*. Springer Verlag, Berlin.
- European Commission. (2006). Retrieved October 21, 2006, from <http://ec.europa.eu>
- Facchini, G. (2004). The political economy of international trade and factor mobility. *Journal of Economic Surveys*, 18(1), 1-31.
- Facchini, G. and Willmann, G. (2005). The political economy of international factor mobility. *Journal of International Economics*, 67, 201-219.
- Fea, S. (2005). Wanted: 4000 workers; overseas recruitment to ease seasonal shortage. *The Southland Times*.
- Feenstra, R.C. (1998). Integration of trade and disintegration of production in the global economy. *The Journal of Economic Perspectives*, 12(4), 31-50.

- Felbermayr, G. and Kohler, W. (2006) Immigration and wages in general equilibrium: a theoretical perspective. In: F. Fodors and R.J. Langhammer (eds) *Labor Mobility and the World Economy*. Springer Verlag, Berlin.
- Findlay, R. (1982). International distributive justice: a trade theoretic approach. *Journal of International Economics*, 14(1), 1-14.
- Forau, P. (2006). The pacific plan, regional developments and job creation. A presentation at the Pacific Cooperation Foundation Conference on the Future of Pacific Labour, Wellington, 29-30 June 2006.
- Forum Secretariat. (1998). SPARTECA. *Forum documents*, retrieved November 7, 2006, from www.forumsec.org.fj
- Francois, J., van Meijl, H. and van Tongeren, F. (2005). Trade liberalization in the Doha Development Round. *Economic Policy*, 20(42), 349-391.
- Freeman, R.B. (2006a). People flows in globalisation. *Journal of Economic Perspectives*, 20(2), 145-170.
- Freeman, R.B. (2006b). Learning from other economies: the unique institutional and policy experiments down under. *The Economic Record*, 82(257), 195-206.
- Friedberg, R.M. and Hunt, J. (1995). The impact of immigrants on host country wages, employment and growth. *Journal of Economic Perspectives*, 9(2), 23-44.
- Ganguly, D. (2005). *Barriers to movement of natural persons: a study of federal, state, and sector-specific restrictions to mode 4 in the United States of America*. Indian Council for Research on International Economic Relations, New Delhi.
- Gera, S., Laryea, S. A. and Songsakul, T. (2005). International mobility of skilled labour: Analytical and empirical issues and research priorities. *Human Resources Development*, Working Paper 2004 D-01.
- Ghosh, B. (2005). Managing migration: whither the missing regime? *UNESCO, draft article of the migration without borders series*.
- Gibson, J. (2006). Migration, income and health: evidence from a natural experiment. *Paper prepared for the Trevor Swan Distinguished Lectures in Economics*, ANU, 6 October 2006.
- Girma, S. and Yu, Z. (2000). Migration: an economic and social analysis. *UK Home office, Research and development statistics*, Occasional paper No. 67.
- Glover, S., Gott, C., Loizillon, A., Portes, J., Price, R. Spences, S., Srinivasan, V. and Willis, C. (2001). *Migration: An Economic and Social Analysis*. Research, Development and Statistics Directorate, UK Home Office, London.
- Gould, D. (1994). Immigration links to the home country: empirical implications for US bilateral trade flows. *Review of Economics and Statistics*, 76(2), 302-316.
- Greenaway, D. and Nelson, D. (2006). The distinct political economies of trade and migration policy: through the window of endogenous policy models, with a focus on North America. In: F. Fodors and R.J. Langhammer (eds) *Labor Mobility and the World Economy*. Springer Verlag, Berlin.
- Guellec, D. and Cervantes, M. (2001). International mobility of highly skilled workers: From statistical analysis to policy formation. *International Mobility of the Highly Skilled*. Paris, OECD, 71-99.
- Harris, R. (1998). The internet as a GPT: factor market implications. In E. Helpman (ed.) *General Purpose Technologies and Economic Growth*. MIT Press, Cambridge, MA.
- Harrison, D.S. (1984). The impact of immigration on a depressed labour market: the south Australian Experience, *The Economic Record*, 60(168), 57-67.
- Harrison, G.W. and Rutström, E.E. (1991). Trade wars, trade negotiations and applied game theory. *The Economic Journal*, 101, (406), 420-435.

- Hatton, T.J. (2007). Should we have a WTO for international migration? *Economic Policy*, 22 (50), 339-383 .
- Hatton, T.J. and Williamson, J.G. (2005). A dual policy paradox: why have trade and immigration policies always differed in labour-scarce economies? NBER Working Paper No. 11866, National Bureau of Economic Research.
- Henry, P. (2003). Mode 4: Through a Canadian immigration policy lens. Chapter 14 in *Moving people to deliver services*, edited by A. Mattoo and A. Caarsaniga. World Bank, Washington D.C..
- Heritage Foundation. (2006). Index of Economic Freedom, Washington, DC.
- Hoekman, B.M., Maskus, K.E., and Saggi, K. (2005). Transfer of technology to developing countries: unilateral and multilateral policy options. *World Development*, 33(10), 1587-1602.
- Hufbauer G. and S. Stephenson (2007). Services trade: Past liberalization and future challenges. *Journal of International Economic Law*, 10(3), 605-630.
- Hufbauer, G.C. and Schott, J.J. (2004). The prospects for deeper North American economic integration: a US perspective. *C.D. Howe Institute Commentary*, No. 195.
- Hugo, G. (1999). A new paradigm of international migration in Australia. *New Zealand Population Review*, 25 (1&2): 1-40.
- Hugo, G. (2005). *Migration in the Asia-Pacific region*, Global Commission on International Migration, Geneva.
- Iredale, R. (2000). Migration policies for the highly skilled in the Asia-Pacific region. *International Migration Review*, 34(3), 882-906.
- Ivlevs, A. (2006). Migration and foreign direct investment in the globalization context: the case of a small open economy. Development studies working paper no. 209, Centro Studi Luca d'Agliano.
- Jain, S., Kapur, D. and Mukand, S.W. (2006). Outsourcing and international labor mobility: a political economy analysis. In: F. Foders and R.J. Langhammer (eds) *Labor Mobility and the World Economy*. Springer Verlag, Berlin.
- Jileva, E. (2002). Visa and free movement of labour: the uneven imposition of the EU *acquis* on the accession states. *Journal of Ethnic and Migration Studies* 28(4), 683-700.
- Jones, R.W. (2005). Immigration vs. outsourcing: effects on labor markets. *International Review of Economics and Finance*, 14, 105-114.
- Kanbur, R. and Rapoport, H. (2005). Migration selectivity and the evolution of spatial inequality. *Journal of Economic Geography*, 5, 43-57.
- Karsenty, G. (2000), Assessing trade in services by mode of supply, Chapter 1 in *GATS 2000: New Directions in Services Trade Liberalization*, edited by P. Sauvé and R.M Stern, Washington D.C.: Brookings Institution Press.
- Keely, C.B. (2003). Globalization transforms trade-migration equation. *International Migration* 41(1), 87-92.
- Kengerlinsky M. (2004). Restrictions in EU immigration policies against the New EU Member States (NMS). *Journal of European Affairs*, 2(4), 12-17.
- Kikuchi, T. (2003). Interconnectivity of communications networks and international trade. *Canadian Journal of Economics*, 36(1), 155-167.
- Kim, S. and Park, I. (2005). Trade facilitation and a northeast Asian free trade arrangement. *International Area Review*, 8(1), 45-64.
- Kleitz, A. (2002). Costs and benefits of trade facilitation. *UNECE International Forum on Trade Facilitation*, OECD, Paris.

- Kugler, M. and Rapoport, H. (2007). International labor and capital flows: Complements or substitutes? *Economics Letters*, 94(2): 155-162.
- Lach, S. (2007). Immigration and Prices. *Journal of Political Economy*, 115(4), 548-587.
- Lambinon, I. and Oriani-Ambrosini, M.G.R. (2003). Mode 4: A South African regulator's view. Chapter 17 in *Moving people to deliver services*, edited by A. Mattoo and A. Caarsaniga. World Bank, Washington D.C.
- Larsen, K., Martin, J.P. and Morris, R. (2002). Trade in educational services: Trends and emerging issues. *World Economy*, 25(6), 849.
- Layard, R., Blanchard, O., Dornbusch, R. and Krugman, P. (1992). *East-West Migration*, MIT Press, Cambridge, Mass.
- Longhi, S., Nijkamp, P. and Poot, J. (2005a). A Meta-analytic Assessment of the Effect of Immigration on Wages, *Journal of Economic Surveys*, 19(3): 451-477.
- Longhi S., Nijkamp, P. and Poot, J. (2005b). 'The fallacy of 'job robbing': A meta-analysis of estimates of the effect of immigration on employment', *Journal of Migration and Refugee Issues*, 1(4): 131-152.
- Luterbacher, U., and Theler, J. (1994). Some game-theoretical considerations on negotiations about migrations. In A. Pierre and C. Schmidt (eds). *Game theory and international relations: preferences, information and empirical evidence*. Ashgate, Aldershot UK.
- Manning, C. and Bhatnagar, P. (2004). Liberalizing and facilitating the movement of individual service providers under AFAS: Implications for labour and immigration policies and procedures in ASEAN. REPSF Project 02/2004, Final Report.
- Manning, C. and Sidorenko, A. (2007). The regulation of professional migration: Insights from the health and IT sectors in ASEAN. *The World Economy*, 30(7), 1084-1113.
- Marginson, S. (2007). Global position and position taking: The case of Australia. *Journal of Studies in International Education*, 11(1), 5-32.
- Markusen, J.R. (1983). Factor movements and commodity trade as complements. *Journal of International Economics*, 14, 341-356.
- Mattoo, A. (2001). Developing countries in the new round of GATS negotiations: towards a pro-active role. In: B.M. Hoekman and W. Martin (eds) *Developing Countries and the WTO: A Pro-active Agenda*, Blackwell.
- Mattoo, A. (2003). Introduction and overview. Chapter 1 in *Moving People to Deliver Services*, edited by A. Mattoo and A. Caarsaniga. World Bank, Washington D.C.
- Mattoo, A. and Carzaniga, A. (2003). *Moving People to Deliver Services*. World Bank, Washington D.C.
- Mayda, A.M. (2006). Who is against immigration? A cross-country investigation of individual attitudes toward immigrants. *The Review of Economics and Statistics*, 88(3), 510-530.
- Mayda, A.M. (2007). Why are people more pro-trade than pro-migration? Forschungsinstitut zur Zukunft der Arbeit/Institute for the Study of Labor. IZA DP No. 2855.
- McCann, P. and Poot, J. (2008). An Integrated Analysis of Trans-Border Employment, Home Country Attachment, Remittances and Travel. In: *Proceedings of the 1st Annual Conference of the Bangladesh Regional Science Association*, March 16-17, 2007. Bangladesh University of Engineering and Technology, Dhaka.

- McMaster, J. and Nowak, J. (2006). The evolution of trade portals and the Pacific islands countries e-trade facilitation and promotion. *The Electronic Journal of Information Systems in Developing Countries*, 26(3), 1-27.
- Miller, P.W. and Neo, L.M. (2003). Labour market flexibility and immigrant adjustment. *The Economic Record*, 79(246), 336-356.
- Ministry of Foreign Affairs and Trade (MFAT) www.mfat.govt.nz (2006; 2007)
 -<http://www.mfat.govt.nz/Trade-and-Economic-Relations/APEC/index.php>
 -<http://www.mfat.govt.nz/Trade-and-Economic-Relations/NZ-and-the-WTO/index.php>
 -<http://www.mfat.govt.nz/Trade-and-Economic-Relations/TradeAgreements/index.php>
- Nadkarni, D. (2006). Views from Auckland: seasonal labour pains. Islands Business. Retrieved October 15, 2006 from www.islandsbusiness.com
- Nana, G. and Poot, J. (1996). A study of trade liberalisation and factor mobility with a CGE model of Australia and New Zealand. *Studies in Regional Science*, 26(2), 27-52.
- Ng, C. and Whalley, J. (2005). Visas and work permits: possible global negotiating initiatives. CESifo Working Paper No 1614, CESifo.
- Nielson, J. (2003). Labour mobility in regional trade agreements. Chapter 5 in *Moving People to Deliver Services*, edited by A. Mattoo and A. Caarsaniga. World Bank: Washington D.C..
- OECD (2004). *Internationalisation and Trade in Higher Education: Opportunities and Challenges*. Organisation for Economic Co-operation and Development, Paris.
- Osborne, M.J. (2004). *An Introduction to Game Theory*. Oxford University Press, New York.
- Ottaviano, G.I.P. and Peri, G. (2006) Rethinking the effects of immigration on wages. NBER Working Paper 12497, National Bureau of Economic research, Cambridge MA 02138.
- Parasnis, J., Fausten, D., and Smyth, R. (2005). The impact of immigration on native workers in Australia. 34th Conference of Economists, Economic Society of Australia, Melbourne, 26-28 September.
- Parsons, C., Skeldon, K., Walmsley, T., and Winters, L.A. (2005). Quantifying the international bilateral movements of migrants. *Migration DRC Working paper T13*.
- Pasquetti, S. (2006). Do we need an international regime for migration? In: F. Foders and R.J. Langhammer (eds) *Labor Mobility and the World Economy*. Springer Verlag, Berlin.
- Poot, J. (2008). Demographic change and regional competitiveness: The effects of immigration and ageing. *International Journal of Foresight and Innovation Policy* 4(1/2): 129-145.
- Poot, J. (ed.) (2004). *On the Edge of the Global Economy*. Edward Elgar, Cheltenham UK.
- Poot, J. and Cochrane, B. (2005). *Measuring the Economic Impact of Immigration: a Scoping Paper*. PSC Discussion Paper. No. 48, Population Studies Centre, University of Waikato.
- Poot, J., Nana, G. and Philpott, B. (1988). *International Migration and the New Zealand Economy: A Long-Run Perspective*. Institute of Policy Studies, Wellington.
- Poot, J. and Sanderson, L. (2007). Changes in social security eligibility and the international mobility of New Zealand citizens in Australia. PSC Discussion Paper. No. 65, Population Studies Centre, University of Waikato.

- Productivity Commission. (2006). *Economic Impacts of Migration and Population Growth, Final Report, April*, Commonwealth of Australia, Melbourne.
- Qalo, V. (2006). Labour movement and international trade: WTO, FTAs and bilateral labour market access agreements, Pacific Islands Trade and Investment Commission, N.Z., www.pitic.org.nz/site/pacificislandstrade/files/Qalo.ppt
- Rauch, J. E. and Trindade, V. (2002). Ethnic Chinese networks in international trade. *Review of Economics and Statistics*, 84(1), 116-130.
- Saiz, A. (2007). Immigration and housing rents in American cities. *Journal of Urban Economics*, 61(2), 345-371.
- Sanderson, L. (2004) Trade and networks: mechanisms for productivity growth. Ministry of Economic Development Occasional Paper 06/05, Ministry of Economic Development, Wellington.
- Saner, R. and Fasel, S. (2003). Negotiating trade in educational services within the WTO/GATS context. *Aussenwirtschaft*, 59(II), 275–308.
- Sauvé, P. (2002). Trade, education and the GATS: what's in, what's out, what's all the fuss about? *Paper prepared for the OECD/US Forum on Trade in Educational Services 23-24 May 2002*. OECD Trade Directorate, Paris.
- Schiff, M. (2000). Love thy neighbor: trade, migration, and social capital. World Bank Working Paper, Development Research Group, World Bank.
- Schiff, M. (2006). Migration, trade, and investment: complements or substitutes? *Centre for International Studies on Economic Growth Working Paper No. 89*, University Tor Vergata, Rome.
- Smith, J.P. and Edmonston, B. (1997). *The New Americans: Economic, Demographic and Fiscal Effects of Immigration*. National Academy Press, Washington, D.C.
- Stahl and Appleyard (2007) *Migration and Development in the Pacific Islands: Lessons from the New Zealand Experience*, mimeo available from www.ausaid.gov.au/publications/pdf/migration.pdf
- Statistics NZ. (n.d.). Retrieved October 19, 2006, from www.stats.govt.nz
- Tempest, R. (1996). Barbie and the world economy. *Los Angeles Times*, September 22, A1 and A12.
- te Velde, D.W. and Nair, S. (2006). Foreign direct investment, services trade negotiations and development: the case of tourism in the Caribbean. *Development Policy Review*, 24(4), 437-454.
- Thapa, P. J. (2004). On the risk of unemployment: a comparative assessment of the labour market success of migrants in Australia. *Australian Journal of Labour Economics*, 7(2), 199-229.
- Tullao, T.S. and Cortez, M.A.A. (2006). Issues and prospects on the movement of natural persons and human capital development in the Philippine-American economic relations. PIDS Discussion Paper 2006-07, Philippine Institute for Development Studies.
- The Economist (2007). Fit at 50? A special report on the European Union, *The Economist*. March 17th.
- The Economist (2008) Open up. A special report on migration. *The Economist*, January 5th.
- Venter, N. (2001). Clark's agreement with Howard widens the Ditch. *The Dominion Post*.
- Vinokur, A. (2006). Brain drain migration revisited. *Globalisation, Societies and Education*, 4(1), 7-24.

- Voigt-Graf, C. (2006). The potential social and developmental impacts of temporary movements of people in the Pacific. *The Future of the Pacific Labour Market Conference*, Pacific Cooperation Foundation, Wellington 29-30 June, 2006.
- von Neumann, J. and Morgenstern, O. (1944). *Theory of games and economic behavior*. Princeton University Press.
- Walmsley, T.L. and Winters, L.A. (2005). Relaxing the restrictions on the temporary movement of natural persons: A simulation analysis. *Journal of Economic Integration*, 20(4), 688-726.
- Walmsley, T.L., Ahmed, S.A. and Parsons, C.R. (2005a). The impact of liberalizing labor mobility in the Pacific Region. *GTAP Working Paper No. 31*, Centre for Global Trade Analysis, Purdue University.
- Walmsley, T.L., Ahmed, S.A. and Parsons, C.R. (2005b). The GMig2 data base: a database of bilateral labour migration, wages and remittances. *GTAP Research Memorandum No. 6*. Centre for Global Trade Analysis, Purdue University.
- Walmsley, T.L., Winters, L.A., Ahmed, S.A. and Parsons C.R. (2005c). Measuring the impact of the movement of labour using a model of bilateral migration flows. Paper presented at the 8th Annual Conference on Global Economic Analysis, Lübeck, Germany.
- Welch, A. R., and Zhen, Z. (2005). The Chinese knowledge diaspora: Communication networks among overseas Chinese Intellectuals in the globalisation era. Keynote address at the International Congress on Overseas Chinese, October, Hong Kong University of Science and Technology, Hong Kong.
- White, R. (2007). Immigrant-trade links, transplanted home bias and network effects. *Applied Economics*, 39(7), 839-852.
- Williams, A. M. and Hall, C. M. (2000). Tourism and migration: new relationships between production and consumption. *Tourism Geographies*, 2(1), 5-27.
- Williamson, J.G. (1996). Globalization, convergence, and history. *Journal of Economic History*, 56(2), 277-306.
- Wilson, J.S. (2003). Trade facilitation: new issues in a development context. *World Bank Trade Note No. 12*.
- Winters, L.A. (2003a). GATS mode 4: The temporary movement of natural persons. Background paper prepared for Trade for Development. UN Millennium Project, New York.
- Winters, L.A. (2003b). The economic implications of liberalizing mode 4 trade. Chapter 4 in *Moving people to deliver services*, edited by A. Mattoo and A. Carzaniga. World Bank: Washington D.C..
- Winters, L.A., Walmsley, T. L., Wang, Z. K. and Grynberg, R. (2003). Liberalising temporary movement of natural persons: an agenda for the development round. *World Economy*, 26(8), 1137-1161. ‘
- Wolf, H.C. (2000). International home bias in trade. *Review of Economics and Statistics*, 82(4), 555-563.
- Wong, K.Y. (2006) Are international capital movement and international labor migration substitutes under national externality? In: F. Foders and R.J. Langhammer (eds) *Labor Mobility and the World Economy*. Springer Verlag, Berlin.
- Woo, Y.P. and Wilson, J. (2000). New directions for APEC’s trade facilitation agenda. *Asia Pacific Foundation of Canada* (www.asiapacific.ca).
- World Bank. (2006). *Global Economic Prospects: Economic Implications of Remittances and Migration*. World Bank, Washington D.C.

- World Commission. (2004). The world commission on the social dimension of globalisation: on the cross-border movement of people. *Population and Development Review*, 30(2), 375-380.
- World Trade Organisation (WTO). (2006). Retrieved October 19, 2006, from www.wto.org
- Yamagata, T. (2006). Comment on 'Labor mobility and East Asian integration' by S.Y. Chia. *Asian Economic Policy Review*, 1: 370-371.
- Yomogida, M. and Zhao, L. (2005). The labor market effect of fragmentation, outsourcing and immigration: Two sides of the same story? mimeo, Hitotsubashi University.
- Zhao, L. and Kondoh, K. (2007). Temporary and permanent immigration under unionization. *Review of Development Economics*, 11(2), 346-358.

Population Studies Centre Discussion Papers

- 37 Bedford, R., Ho, E. & Lidgard, J. *International Migration in New Zealand: Context, Components and Policy Issues*. October 2000.
- 38 Bedford R., Lidgard, J. with McLaughlin, B., Newell, J. *Demographic Change and Employment in the Central North Island, 1986-1996*. April 2001.
- 39 Hutton, D. *Solo Parenting in New Zealand: who are the Children?* August 2001.
- 40 Honey, J. *New Zealand Jobs, 1976-1996: A Demographic Accounting*. September 2001.
- 41 Lidgard, H. & McLeay, C. *Researching Characteristics of People Moving Into and Out of the Western Bay of Plenty and Tauranga Districts: Some Methodological Issues*. April 2002.
- 42 Pool, I. *Transfers of Capital and Shifts in New Zealand's Regional Population Distribution, 1840-1996*. June 2002.
- 43 Pool, I. *Why Were New Zealand Levels of Life-Expectation so High at the Dawn of the Twentieth Century?* September 2002.
- 44 Pool, I., Baxendine, S. & Cochrane, B. *Components of Regional Population Growth, 1986-2001*. May 2004.
- 45 Joseph, A., Lidgard, J. & Bedford R. *Rural Trajectories: Diversification and Farm-Community Linkages in Whakatane District, 1999-2003*. July 2004.
- 46 Hillcoat-Natéllamby, S. & Dharmalingam, A. *Solidarity Across Generations in New Zealand: Factors Influencing Parental Support for Children within a Three-Generational Context*. October 2004.
- 47 Longhi, S., Nijkamp P., Poot, J. *A Meta-Analytic Assessment of the Effect of Immigration on Wages*. December 2004.
- 48 Poot, J. & Cochrane, B. *Measuring the Economic Impact of Immigration: A Scoping Paper*. February 2005.
- 49 Hillcoat-Nallétamby, H & Baxendine, S. *The 'Ins and Outs' of Work – Diversity or Homogeneity in New Zealand Women's Employment Patterns?* March 2005.
- 50 Baxendine, S., Cochrane, B., Dharmalingam, A., Hillcoat-Nallétamby, S. & Poot, J. *The New Zealand Population: A Synopsis of Trends and Projections 1991 – 2016*. May 2005.
- 51 Baxendine, S., Cochrane, B., Poot, J. *Demographic Change and Transport Needs in the Waikato Region*. September 2005.
- 52 Pool, I., Baxendine, S., Cochrane, W., & Lindop, J. *New Zealand Regions, 1986-2001: Population Dynamics*. September 2005.
- 53 Pool, I., Baxendine, S., Cochrane, W., & Lindop, J. *New Zealand Regions, 1986-2001: Population Structures*. October 2005.
- 54 Pool, I., Baxendine, S., Cochrane, W., & Lindop, J. *New Zealand Regions, 1986-2001: Population Geography*. October 2005.
- 55 Pool, I., Baxendine, S., Cochrane, W., & Lindop, J. *New Zealand Regions, 1986-2001: Households and Families and their Dwellings*. October 2005.
- 56 Pool, I., Baxendine, S., Cochrane, W., & Lindop, J. *New Zealand Regions, 1986-2001: Education and Qualifications*. October 2005.
- 57 Baxendine, S., Cochrane, B. & Poot, J. *Description and Spatial Analysis of Employment Change in New Zealand Regions 1986-2001*. November 2005.
- 58 Pool, I., Baxendine, S., Cochrane, W., & Lindop, J. *New Zealand Regions, 1986-2001: Incomes*. November 2005.
- 59 Pool, I., Baxendine, S., Cochrane, W., & Lindop, J. *New Zealand Regions, 1986-2001: Industries and Occupations*. December 2005.
- 60 Pool, I., Baxendine, S., Cochrane, W., & Lindop, J. *New Zealand Regions, 1986-2001: Labour Market Aspects of Human Capital*. February 2006.
- 61 Pool, I. & Baxendine, S. *Population Trends, Convictions and Imprisonment: Demographic Divergence, Dichotomy and Diversity*. February 2006.
- 62 Pool, I., Baxendine, S., Cochrane, W., & Lindop, J. *Dependency and Development of Social Capital*. February 2006.
- 63 Pool, I., Baxendine, S., Katzenellenbogen, J., Howard, S. *New Zealand Regions, 1986-2001: Hospitalisation and some Related Health Facts*. March 2006.
- 64 Poot, J. *Demographic Change and Regional Competitiveness: The Effects of Immigration and Ageing*. February 2007.
- 65 Poot, J., & Sanderson, L. *Changes in Social Security Eligibility and the International Mobility of New Zealand Citizens in Australia*. June 2007
- 66 Cameron, M., Cochrane, W., & Poot, J. *End-user Informed Demographic Projections for Hamilton up to 2041*. December 2007.
- 67 Longhi, S., Nijkamp, P., & Poot, J. *Meta-Analysis of Empirical Evidence on the Labour Market Impacts of Immigration*. February 2008.
- 68 Strutt, A., Poot, J., & Dubbeldam, J. *International Trade Negotiations and the Trans-Border Movement of People: A Review of the Literature*. June 2008.

Copies (if still in print) can be requested from the Administrative Secretary of the Population Studies Centre at the University of Waikato, Private Bag 3105 Hamilton, New Zealand. Email: pscadmin@waikato.ac.nz. Discussion Paper # 33 onwards can be downloaded at <http://www.waikato.ac.nz/wfass/populationstudiescentre/discussion-papers.shtml>

ISBN: 1-877149-72-1