



Australia and Japan

How distance and complementarity shape
a remarkable commercial relationship



Australian Government

Department of Foreign Affairs and Trade
Economic Analytical Unit



Australia and Japan

How distance and complementarity shape
a remarkable commercial relationship

© Commonwealth of Australia 2008

This work is copyright. Apart from any use permitted under the *Copyright Act 1968*, no part may be reproduced by any process without prior written permission from the Commonwealth available through the Attorney-General's Department. Requests and inquiries concerning reproduction and rights should be addressed to Commonwealth Copyright Administration, Copyright Law Branch, Attorney-General's Department, Robert Garran Offices, National Circuit, Canberra ACT 2600 or by email to commonwealth.copyright@ag.gov.au

National Library of Australia Cataloguing-in-Publication entry

Title: Australia and Japan: How distance and complementarity shape a remarkable commercial relationship

ISBN: 978 1921244 8 96 (pbk.)

Notes: Bibliography.

Subjects: Australia - Commerce - Japan.

Japan - Commerce - Australia.

Australia - Relations - Japan.

Japan - Relations - Australia.

382.0994052

Editorial, artwork and production management by WHH Publishing

Printed in Australia by Blue Star

Contents

Technical note	iv
Abbreviations and acronyms	iv
Foreword	v
Overview	1
Introduction	3

chapter 1

A remarkable relationship	5
The close link between direct investment and trade	10
Portfolio investment growing in size and importance	17
Not all rosy . . .	20
. . . in services as well as goods	25
Conclusions and implications	28

chapter 2

Shaping forces: complementarity and distance	31
The driving force: complementarity	32
The constraining force: distance	33
Distance in the bilateral relationship	35
The interaction between complementarity and distance	47
Conclusions and implications	50

chapter 3

Shifting context: change in the Japanese and Australian economies	53
The Japanese economy	54
Looking to the future: the demographic challenge . . .	57
. . . and the consequent productivity imperative	60
'Factory Asia': the growth of East Asia and intra-regional trade	67
Combating carbon	79
Challenges confronting Australia	83
Conclusions and implications	86

chapter 4

The next generation	89
Building on complementarity	90
New areas for services trade and investment	100
Overcoming distance	106
Thinking beyond 'bilateral' relations	108
Conclusions and implications	110

Acknowledgments	113
References	115
List of boxes, figures and tables	120

Technical note

Unless otherwise specified, all data referred to in this report are in nominal Australian dollars.

The principal sources of data are the Department of Foreign Affairs and Trade STARS database, the Australian Bureau of Statistics, the Reserve Bank of Australia, the Bank of Japan, Japan's Ministry of Finance, the Organisation for Economic Co-operation and Development and the International Monetary Fund.

All data are for calendar years, except for Australian historical data which are only available for the Australian financial year, which runs from 1 July to 30 June.

An edited version of the 'Note on results' from the 2008 DFAT-ANU Services Trade Project, prepared by Jenny Corbett, Fuku Kimura, Kazu Hayakawa and Arata Kuno, is available online at <www.dfat.gov.au/eau>.

Abbreviations and acronyms

ABS	Australian Bureau of Statistics
AP6	Asia-Pacific Partnership on Clean Development and Climate
ASEAN	Association of Southeast Asian Nations
CAGE	cultural, administrative, geographic and economic
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DFAT	Department of Foreign Affairs and Trade
ELICOS	English Language Intensive Courses for Overseas Students
GATT	General Agreement on Tariffs and Trade
GDP	gross domestic product
ICT	information and communication technology
IMF	International Monetary Fund
LNG	liquefied natural gas
OECD	Organisation for Economic Co-operation and Development
R&D	research and development
TAFE	Technical and Further Education
WTO	World Trade Organization
UNFCCC	United Nations Framework Convention on Climate Change

■ Foreword

This is a timely report. As the world contemplates how to deal with a once-in-a-generation financial crisis and its effects on the international economy, it reminds us that there is value not just in relationships that are new and fast-growing, but also in those that are substantial, stable, and have stood the test of time. Australia's commercial partnership with Japan is just that, and in my view that substance, stability and durability will be a critical factor contributing to the ability of both countries to weather the current uncertainty.

The report demonstrates how both history and economic structure have contributed to building a trade and investment relationship between Australia and Japan that will remain absolutely vital to the economic well-being of both countries for the foreseeable future—indeed, the more so in a world where energy, resource and food security appear increasingly likely to be at issue. At the same time it highlights how changes in Australia and Japan, as well as in the nature of trade and investment among countries in our region, throw open the potential for this bilateral relationship to assume a far greater significance regionally.

The new modes of international business that have developed during the 1990s and 2000s mean that an increasing proportion of commercial activity between Australian and Japanese firms happens in third countries. Patterns of investment are altering, too. Not only are Japanese companies taking larger shares and a more direct involvement in projects in Australia, but a small number of Australian companies (notably in the tourism industry) have shown that direct investment in Japan can yield significant benefits for both economies. The additional challenge for Australian businesses is to develop their relationships with Japanese firms in ways that tap into regional production networks. For companies and, especially, governments, the relationship needs to be thought of as more than just bilateral.

The Australia Japan Business Co-operation Committee is concerned that many Australian businesses outside the areas of traditional strength—agriculture, resources and energy—are unaware of the opportunities Japan offers. It has been a priority of mine as Chairman of that Committee to ensure a broadening of the business relationship into new areas of activity. This report is a useful contribution to that effort, and I hope it will be widely read by Australian businesses and policy-makers. My experience is that Japan offers rewards for companies that have quality products to sell or services to offer, and the perseverance to work with customers to ensure that their needs are met. Getting a foot in the door can require effort and patience, but the value Japanese customers place on long-term relationships means that, once in, there can be enormous and long-lasting benefits.

Sir Rod Eddington
Chairman, Australia Japan Business Co-operation Committee

Overview

Australia and Japan enjoy a partnership of tremendous closeness that has both economic and strategic importance in the wider Asia-Pacific region. That partnership has been underpinned by Japan's position as Australia's largest single trading partner for all but a few years during the last three and a half decades—a position that was taken over by China in 2007, the same year in which China overtook the United States as Japan's largest merchandise trading partner. That change of ranking, along with the relatively low levels of economic growth in Japan itself over more than a decade, and the relatively stable nature of much of the huge commercial relationship between Australia and Japan, has resulted in a shift of the media spotlight towards China and the prospects for commercial relations with other emerging economies. The global financial crisis, which saw Japan slip into recession in late 2008, might seem to cast a further question mark over the state of the bilateral commercial relationship.

This report contains five central messages:

Any perceptions that Japan's absolute economic importance to Australia—and Australia's to Japan—are diminishing are misplaced.

- Japan is still Australia's largest export market by a significant margin—and, as international competition for food, energy and resources grows, Australia's importance as a reliable and stable supplier of Japan's long-term needs will increase.
- Japan remains the world's second-largest economy (at market exchange rates), with very high levels of per capita GDP. This means that the absolute *magnitude* of growth in the economy is very large even when growth *rates* are low, as has been the case in the recent past.
- While direct imports of Japanese goods into Australia ('made in Japan') have been growing slowly, Japanese companies are also responsible for many of Australia's manufactured imports from other countries in the region ('made elsewhere by Japanese firms'), as the relationship transcends the purely bilateral and becomes regional in nature.
- Similarly, Japanese firms operating offshore are contributing to the growth of Australia's exports to other countries in the region.
- Japanese firms continue to be key investors in the development of Australia's energy, resources and agrifood industries.

Despite widespread perceptions to the contrary, Japan's low overall aggregate growth rates do not signify a lack of new opportunity for Australian companies to do business there.

- The Japanese economy will continue to undergo significant change as a result of trends such as the ageing of Japan's population, changing savings and consumption patterns, the continuing integration of Japanese firms in the regional economy, and pressures to reduce energy consumption and greenhouse gas emissions.
- Japanese policy-makers are also becoming increasingly conscious of the need to open their economy to greater international involvement.

- Even relatively small growth in the world's second-largest economy combined with these structural changes will generate considerable business opportunities for firms in Australia.

Trade in traditional industry sectors will continue to represent the vast bulk of the Australia–Japan relationship; but there is potential for high growth in areas of emerging economic significance resulting from change in both countries.

- Modelling carried out by the Australia–Japan Research Centre at the Australian National University for this report suggests that there is some scope for additional bilateral trade and investment in business and other services to become an area for future growth, although a number of impediments will need to be addressed.
- An increasingly cooperative approach to bilateral trade and investment in agriculture and processed food could also yield rich dividends for both countries.
- Firms in Australia should be aware of increasing investment by Japanese companies in China and other regional countries, which is linked to the rise of regional production networks, and alert to the consequent opportunities that arise in Japan and in the region.
- Australian firms need to be open to taking another look at the Japanese market as traditional stereotypes about the difficulties of doing business there may no longer be accurate.

Capitalising on these new areas of opportunity will require active efforts by both business and government to maintain focus on Japan and to reduce 'distance' in the business relationship, including through:

- institutional measures, such as the free trade agreement currently under negotiation, intended to address ongoing barriers to bilateral trade and investment
- ongoing promotion of people-to-people links, which are currently flagging in the face of fierce competition from other countries for the attention of both Australia and Japan, including through education, high-level business missions, and tourism.

It is in the interests of both Australian business and Australian governments to persevere in their efforts to maintain focus on Japan and to reduce distance in the business relationship.

- Governments, which are rarely traders or investors themselves, benefit from the flow-on effects of mutually beneficial commercial ties into the broader political and strategic relationship.
- Companies, which trade and invest when there are commercial gains from doing so (and for which broader political or strategic concerns are less relevant), may discover additional opportunities.

■ Introduction

Australia–Japan commercial relations—the morning after

The year 2007 was in many ways a landmark year in the history of Australia's commercial relationship with Japan. It was the 50th anniversary of the signing of the bilateral Agreement on Commerce that helped reinvigorate trade in the post-World War II period, and it saw the beginning in earnest of negotiations on a new trade agreement designed to integrate the two economies still further. The end of Australia's 2006–07 financial year marked the 40th anniversary of Japan overtaking Britain as Australia's largest export market, a position it still occupies by a significant margin.

If 2007 was a year of landmarks then the 'morning after'—2008—has been more a year of questions. Figures released in early May 2008 confirmed that China had become the biggest trading partner of Australia (a position Japan had held for almost all of the previous three and a half decades). Japanese data released early in the year also showed that China had overtaken the United States as Japan's largest two-way merchandise trading partner. In both Australia and Japan there has been a heavy media spotlight on China and the other emerging giant, India, with much speculation about their potential to affect global economic dynamics and the Australian and Japanese economies. Still further questions and uncertainties have been posed by the acceleration, late in the year, of the global financial crisis and its growing impact on the real economy.

By contrast, there has been relatively little reporting on the Australia–Japan commercial relationship. But Japan remains of crucial significance to Australia's economy, and Australia to Japan's, even while the health, maturity and mutually beneficial nature of the bilateral commercial relationship keep it largely out of the news.

Each country remains the source of large quantities of goods and (to a lesser extent) services that the other needs, and bilateral trade, accordingly, continues to grow. Japanese requirements for Australian products continue to help fund the development of major Australian export industries, particularly in the energy sector. Although the global financial crisis has brought to an end—for how long is uncertain—some of the trends influencing the relationship, including high commodity prices, the weak yen and the appreciating Australian dollar, the fundamental complementarities that exist between Japan and Australia mean that this dynamic will continue into the future. The economic relationship, moreover, extends beyond direct bilateral dealings and contributes to both countries' growing trade and investment relations with a wide range of other economies, particularly in the Asia–Pacific region.

Chapter 1 of this report provides the factual backdrop for the remainder of the report. It outlines in detail some key characteristics of the bilateral commercial relationship, both demonstrating its ongoing size and vigour, and examining some of the characteristics giving rise to the challenges identified in subsequent

chapters—notably the significant preponderance of primary products among the composition of Australian exports to Japan, and what appear to be relatively low levels of bilateral services trade.

Chapter 2 looks at two interacting factors that have shaped the bilateral commercial relationship to date. The first, which is well known, is the *complementarity* that has led to the burgeoning of trade and investment between the two economies. The second is the *distance*, in a multidimensional sense—cultural, administrative and political, geographic and economic—that has had to be overcome for the relationship to thrive.¹ It examines how these factors have evolved over time, and what they have meant for trade and investment between Australia and Japan.

At the same time as noting the relationship's importance, it must be recognised that change is afoot. The emergence of China and India, in particular, but also other large developing economies in Asia, is altering regional economic dynamics. As by far the largest developed economy in the region, with a per capita income many times that of its emerging rivals, Japan has until now been largely economically pre-eminent—but its situation is shifting towards that of first among equals. The per capita wealth gap will remain for many years to come, but the huge populations of China and India, in particular, as well as the dynamics of Japan's own demography, mean that the arithmetic of overall economic scale will change markedly. As this happens, issues surrounding the use and conservation of energy, resources and the environment will become ever more salient. These evolving economic dynamics, and the political changes that are bound to accompany them, are already presenting real challenges for the Australian and Japanese governments and must be expected to have an important impact on future commercial relations between the two countries.

Chapter 3, accordingly, looks at some of the changes taking place in the economies of Australia and Japan and in their regional engagement, and at the longer-term economic and demographic factors that are driving them. It focuses on the implications of the productivity challenges faced by both economies arising from three key themes: demographic developments, regional developments, and climate change and measures to address it.

Change within the two economies, of course, will have an impact on the commercial relationship as well. This impact will be expressed in different ways in different areas of the relationship. **Chapter 4** returns to the concepts of complementarity and distance to examine what types of change might be predictable, what factors might encourage or inhibit growth in the relationship, and what governments and business might do to maximise the outcomes they seek.

¹ The discussion of the concept of 'distance' in this report draws on the work of Ghemawat (2007).

Key points

- Japan continues to be a vital partner in Australia's prosperity, supplying Australia with much-needed imports and buying more of Australia's exports than any other country.
- The trade relationship is changing: many of the inputs previously sourced from Japan that have helped Australia lift its productivity (such as computers and electrical equipment and machinery) are increasingly imported from Japanese firms in third countries, especially China and ASEAN nations. These changing business patterns are also resulting in increasing exports by Australia to those countries.
- Investment in Australia by Japanese firms, which played a crucial role in the development of major export industries (resources, energy and agrifood), is continuing, with Japanese firms increasingly having a more direct involvement than in the past.
- Portfolio investment and other capital flows are an additional, important connection between the two economies.
- Beyond the relatively clearly defined and well-known strengths, the trade and investment relationship in areas such as services seems less robust than might be expected.

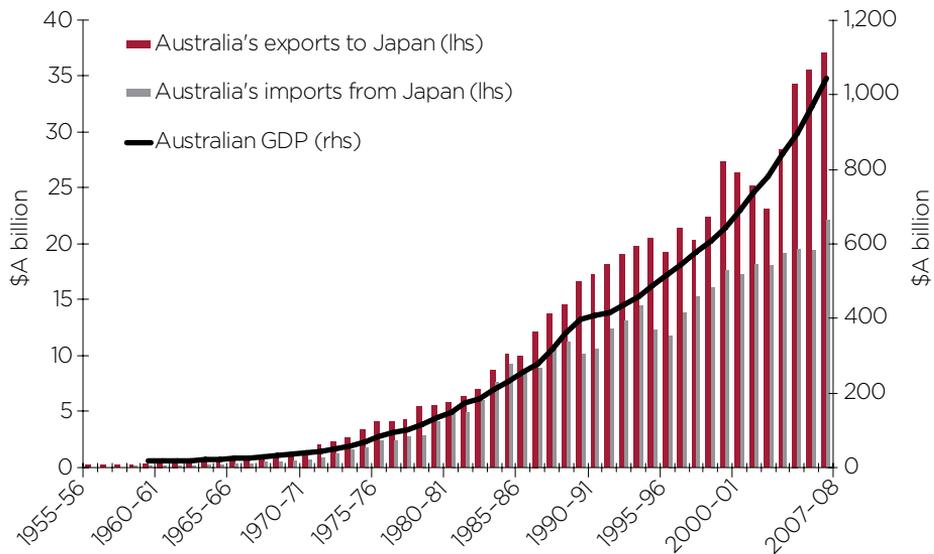
Chapter 1

A remarkable relationship



Most of the world's largest bilateral commercial relationships are between countries that are geographic neighbours, share a common cultural, political or legal heritage, have former colonial ties and/or are partners in a preferential trade agreement. None of these link Australia and Japan, yet the commercial relationship between them has been and remains both huge and crucial to the economic fortunes of both countries (Figure 1.1). Japan was Australia's largest single trading partner from 1971-72²—for all but a few years in the late 1990s and early 2000s when it was a close second to the United States—until that position was overtaken by China in 2007. And Japan remains (as it has been since 1966-67) Australia's largest export market for goods and services, by a margin of 25 per cent over China for exports of goods alone. All in all, Japan bought just under 19 per cent of Australia's merchandise exports in 2007.

Figure 1.1
Australia's economy has grown strongly in tandem with trade with Japan
Australia's total imports from and exports to Japan, and Australian GDP, 1955-56 to 2007-08



Note: As services trade data are not available before 1966-67, the figures for those years are for merchandise trade only.

Sources: DFAT STARS database; ABS (2008a, 2008c, 2008d).

Confirmation that China has outstripped Japan as a trading partner in terms of total trade (goods and services) may well provoke some soul-searching about the future of the relationship. But a quick look at some more detailed statistics demonstrates just how large and healthy the relationship is and how important to the economic well-being of both countries are the goods each imports from the other; and a qualitative analysis underlines the significance to both countries of the vast trade in energy, resources and food.

One indication of just how remarkable the trade relationship is can be gleaned from the indexes of bilateral trade intensity (Table 1.1). These show that Japan's imports of goods from Australia are considerably greater than would be expected given the share of the two countries in world trade (an index greater than 1 shows higher than expected trade). The same is also true for Australia's imports of goods from

² Australian historical data are only available for the Australian financial year, which runs from 1 July to 30 June.

Japan (although the index is much lower) and, perhaps surprisingly, for services trade in both directions.

Table 1.1
Australia and Japan trade more than might be expected

Trade intensity indexes for goods and services trade between Australia and Japan

	2002	2003	2004
Goods: Australian exports to Japan	4.32	4.40	4.73
Goods: Japanese exports to Australia	1.86	1.85	1.70
Services: Australian exports to Japan	1.80	1.63	1.55
Services: Japanese exports to Australia	1.40	1.43	1.16

Note: This table shows the basic trade intensities for trade between Australia and Japan. An index above 1 indicates that bilateral trade is greater than proportional to the role of each in world trade.

Source: Corbett et al. (2008).

Another statistical indicator of the importance of the relationship is that Australia has had an often sizeable trade surplus (exports of goods and services minus imports) with Japan. This matters not because a surplus is of itself desirable (as the mercantilists thought) but because it reminds us that a critical element of trade is the benefit derived from importing what one needs. Thus, while a long-term constant in trade between Australia and Japan, Australia's surplus has rarely been an issue in a relationship that has delivered significant benefits to both countries. The magnitude of the surplus puts the size and importance of the relationship between Australia and Japan clearly into perspective: in 2007, it was of the same order as Australia's *total* trade in goods (exports plus imports) with its fifth-ranked trading partner, New Zealand; and the *growth* in Australia's merchandise trade with Japan between 2003 and 2007, at more than \$14 billion, was greater than its *total* 2007 trade in goods and services with the fastest-growing major trading partner in that period, India. Trend growth in Australian merchandise exports to Japan over the five-year period to 2007 was a robust 10.7 per cent.

Japan is a key destination for much of what Australia exports. Japan buys more than any other country of *five* of Australia's ten most valuable merchandise exports: coal, aluminium, natural gas, bovine meat and copper ores. Of the remaining five, it ranks second among purchasers of iron ore, Australia's second most valuable export; and third among buyers of crude petroleum, Australia's fourth most valuable export. It also is the largest customer for Australian cheese and curd, seafood, uranium,³ woodchips, animal feed and liquefied butane and propane gas.

Australia, though a much smaller economy than Japan, ranks fifth among its trading partners as a source of imports. Australia's exports of raw materials have played an important role in Japan's own development. Starting with coal and wool, and later including iron ore, non-ferrous metals and liquefied natural gas (LNG), these imports from Australia were vital inputs to the manufacture of products whose export helped Japan develop into an economic giant. Japan already sources more of its energy imports from Australia than any other country, outstripping Saudi Arabia; and Australia's position will only be enhanced by the entry into force

³ Uranium exports, Australian statistics for which are in any case confidential, do not show up in bilateral export figures, as most Australian uranium goes to third-country destinations for processing before reaching its final destination in Japan. Japan received approximately 28 per cent of Australian uranium exports in 2007.

of a range of major LNG contracts from 2015 at the same time as Indonesian and Malaysian exports to Japan wind down; and by increased Japanese interest in uranium as a source of energy. In 2007 Australia supplied the majority of Japan's imports of coal (62.5 per cent), iron ore (52.4 per cent), silica and quartz sands (62.6 per cent) and zirconium (56.6 per cent). In addition, it was the principal supplier of uranium, gold, lead, ferro-manganese, bauxite and alumina, titanium and ilmenite; and the second-ranked source of imports of aluminium, nickel, zinc and manganese.

Australia has been an avid consumer of Japanese products throughout the post-war period as well. Imports from Japan were crucial from the early post-war period in meeting demand in Australia for both consumer goods and industrial equipment and machinery. In the late 1940s, for example, Australia's requirement for ceramic insulators—essential in the development of its electricity grid—was a significant factor providing impetus to its efforts to reopen trade with Japan in the post-war period (Rix 1986). The propensity of Australia's people to buy Japanese goods is extremely high by comparison with comparable trading partners; and growth in per capita purchases has also been relatively rapid in recent times (Table 1.2).

Table 1.2

Australians lap up Japanese products

Japan's exports per person in importing country, 2002 and 2007 (US\$)

	2002	2007
Australia	435.0	716.9
New Zealand	455.3	687.4
United States	432.6	494.8
United Kingdom	215.0	256.5
China	41.6	101.4

Sources: UN data on the DFAT STARS database; IMF World Economic Outlook database.

The connection is particularly strong in the automotive sector:⁴ many more passenger motor vehicles are imported into Australia from Japan than from any other country, and Japanese firms are major investors in the industries of two of the other key exporters of these products to Australia—Thailand (fourth in 2007) and South Africa (sixth in 2007). Japan is also the largest exporter of motorcycles and rubber tyres to Australia, and the second-largest source of imported vehicles for transporting goods (after Thailand, where Japanese investment again plays a major role in production), other motor vehicles, and motor vehicle parts. Despite its relatively small population, Australia is the third-largest single market for new passenger motor vehicles manufactured in Japan. Underscoring the closeness of the relationship in this sector, Toyota Australia, a Japanese-owned company, is the largest exporter of passenger motor vehicles from Australia. A significant proportion of the production from Toyota's Altona factory in Victoria is exported (approximately 100,000 vehicles in 2007), to 23 markets mostly in the Middle East and Persian Gulf but also in South-East Asia, South Africa and the Pacific.

4 Interestingly, the Agreed Minutes attached to the 1957 Agreement on Commerce make specific reference to expanding the opportunities for imports of motor vehicles—but into Japan from Australia!

The example of the automotive industry demonstrates the multifaceted nature of the interaction between the economies of Australia and Japan. In many areas—notably computer equipment, televisions and other consumer electronic and electrical goods, and communications equipment—Japan has lost its former pre-eminence as an exporter of manufactures to Australia, often to Japanese affiliates now located in other parts of the region as a result of the investment and trading decisions of those companies. These affiliates, in turn, are contributing to demand for Australian exports of raw materials to other parts of the region—in a similar way to that exemplified by wool (see Box 1.1), where direct exports to Japan, once huge, are now negligible, but Japanese demand remains important to Australia's wool trade.

Box 1.1 The evolution of Australia's wool trade with Japan

Wool became an important component of trade between Australia and Japan in the late 19th century, as natural fibre processing and textile manufacturing formed an important part of Japan's early industrialisation. A Japanese delegation visited Australia in 1878 to examine the possibility of buying Australian wool. In 1888 the first exports were recorded, for the significant quantity of 196,561 pounds' weight of wool from Victoria, and, the year after, a small Japanese trading house was established to facilitate the trade. Japan's purchases of wool continued to grow—with the big trading houses (*sogo shosha*) becoming involved in the 20th century—and by 1935 it was a major component of trade between the two countries.

The significance of wool in bilateral trade was again evident when trade resumed after World War II. By the mid-1950s, three-quarters of Japan's imports from Australia were wool, and Japan was Australia's largest export market for wool. Even as late as 1989 wool was Australia's fourth-largest export to Japan by value, and wool exports were worth almost as much as exports of iron ore (see Figure 1.5).

However, changes and restructuring in the global production of fibre, textiles and apparel, with substantial relocation of fibre processing and textile and apparel manufacturing to lower-cost economies, together with declines in domestic demand and changes in Japanese retailing and distribution (AJRC 2003), caused major adjustments in the size and quality of the wool trade with Australia. Japanese firms were at the forefront of this restructuring and, from the late 1980s, moved a major part of their wool processing capacity to China to take advantage of lower labour costs, as well as the highly labour-intensive stages of production such as apparel making.

Consequently, in a few years in the early to mid-1990s Japan went from being the world's largest importer of wool to the fourth largest. Japan imported 81,277 tonnes in 1994 from Australia, which was worth \$573 million, but, by 2007, imports had shrunk to 3,845 tonnes worth \$30 million. The composition of Australian wool exports to Japan also changed. By 2001 virtually no greasy wool was being exported to Japan, and much of the processed wool was fine or super-fine (<20 microns).

While direct trade in wool between Australia and Japan may be 'dead' (AJRC 2003: 1), to some extent it has been replaced by indirect trade, often to Japanese firms operating offshore and sometimes to local firms in China, Malaysia, Taiwan and Thailand where early stage processing (converting raw wool into tops) is now taking place. Taiwan and Thailand produce no wool domestically and Malaysia only a little. As well, China, principally, and other countries in the region are also the sources of Japan's increased imports of yarn and clothing. All are major export markets for Australian wool. This suggests that, for the Japanese market, Australian wool is exported indirectly, after processing offshore.

Change continues: as with some other industrial products (such as flat-screen televisions) some specialised production is returning to Japan. Processing and production of wool yarn and wool fabrics increased in 2006. As well, other firms involved in the industry continue to restructure their operations (for example, Itochu Corporation withdrew from auction-based wool sales in 2007 after 40 years of being the largest purchaser at such sales).

'Made in Japan' has increasingly become 'made by Japan elsewhere'. The ratio of manufacturing by Japanese (multinational) companies outside Japan to manufacturing production within it has moved significantly in favour of the former. Toyota, Honda, Sanyo, Sharp, Sony, Hitachi, Panasonic and others continue to record strong sales in Australia, but these sales (from offshore affiliates in China and the ASEAN countries) may no longer show up in Australia–Japan bilateral trade statistics.

Likewise, demand from Japan (and to some extent involvement by Japanese trading houses) still drives many of Australia's wool exports—but, as Box 1.1 shows, the fragmentation of production and growth of supply chains means that initial processing, once done in Japan, now takes place in ASEAN countries or China. Accordingly, the 'reality' shown by the trade figures—that there is only a minuscule bilateral trade in the commodity that once accounted for some 75 per cent of Australia's exports to Japan—is a misleading one. While quantification is difficult, it seems clear that Japanese firms still account, in one way or another, for much more of Australia's trade in both directions than the raw figures show.

The close link between direct investment and trade

The importance of the contribution made by Australian primary products to Japan's 'economic miracle' and the critical need for Japanese purchasers to achieve reliability of supply quickly drew Japanese consumers and Australian producers into a cooperative relationship. Japanese demand for raw materials and Japanese investment have been crucial in the development of many of Australia's key export industries and, consequently, central to Australia's own prosperity.

Box 1.2 The big picture

Japan is an important investor in Australia. The total stock of Japanese investment in Australia in 2007 was slightly more than \$57.5 billion.⁵ This was 3.5 per cent of total foreign investment in Australia, with Japan ranking third as a source of investment, behind the United States and the United Kingdom and ahead of New Zealand, Hong Kong, the Netherlands and Singapore, a ranking it has held for many years. Almost half of this (\$27 billion) was direct investment. This was 7.2 per cent of the total stock of foreign direct investment in Australia—and, as for total investment, Japan ranked third. Since 2001, while the stock of total Japanese investment has been steady, direct investment has increased by 65 per cent, driven by rising investment in finance and insurance in particular and, to a lesser extent, manufacturing. Notwithstanding this rapid increase, Japan's share of inward direct investment in Australia has fallen slightly as inward investment from other countries has grown more quickly.

Australia has figured prominently as a destination of choice for Japanese investors. In 2007, 2.7 per cent of Japanese direct investment was in Australia and Australia ranked eighth among the destinations for such investment. According to Japanese data, while the stock of investment grew almost 25 per cent between 1996 and 2007 and Australia's ranking was similar, Australia's share of Japanese foreign direct investment had fallen from 3.6 per cent.

In contrast, Japan is a prime destination for portfolio investment from Australia but not for direct investment. The stock of total Australian investment in Japan in 2007 was \$35.1 billion. This was 3.6 per cent of Australian investment abroad. The fall in Australian investment in Japan in 2007 meant that Japan's ranking slipped from fourth—behind the United States, the United Kingdom and New Zealand, a ranking it had held for many years—to sixth, as more Australian investment went into Germany and the Netherlands. The vast majority of this was portfolio and other investment; the Australian Bureau of Statistics recorded Australian direct investment stocks in Japan of only \$386 million. (Japanese authorities have a higher figure and anecdotal evidence suggests direct investment is more substantial; a partial explanation for the discrepancy may be that Australian companies book the investment through other foreign subsidiaries, with the result that the investment is not recorded as coming from Australia.) This was 0.1 per cent of the stock of Australian direct investment abroad and, while data confidentiality means an accurate ranking is difficult, Australian direct investment in a large number of North American, European and other Asian countries exceeds that in Japan. While Australian direct investment in Japan has never been great, there has been some disinvestment in recent years, with the stock falling from \$811 million in 2002.

The small stock of Australian foreign direct investment is consistent with the low levels of direct investment from all sources in Japan: Australia ranks 14th among foreign investors in Japan, with almost 0.5 per cent of the stock of foreign direct investment in Japan. Australia's ranking among foreign investors in Japan has remained steady during the past decade, even though the stock has increased from 1996 when, according to Japanese data, it represented less than 0.08 per cent of the stock of foreign direct investment.

⁵ Investment, especially foreign direct investment, is notoriously difficult to measure accurately. While the reasons for this are many, one is the difficulty of capturing borrowings and reinvested earnings by foreign companies. The data used here are drawn from the Australian Bureau of Statistics (ABS 2008e), and the Japanese Ministry of Finance and the Bank of Japan databases.

Starting in the 1890s, Japanese trading houses helped develop an alternative export market for wool—until then almost the entire clip had been shipped to Britain. Similarly, in the 1960s and subsequent decades, long-term contracts from Japanese users of minerals and energy and investment by trading houses such as Mitsui and Mitsubishi enabled mines and gas fields to be developed and the necessary infrastructure to be put in place to exploit these resources and then export them, both to Japan and to third countries.

Box 1.3 Japan's role in developing Australia's resources and energy industries

Japanese trading companies remain important players in developing Australia's resources and energy industries. One of the early investments, which was critical in the growth and expansion of the coal trade between the two countries (and the development of Australia's coal export industry to other markets) was in 1963 when Mitsui, which had a contract to supply three million tonnes of coal a year in Japan, participated in a joint venture with Australian mining contractor Thiess Brothers and US coal company Peabody to develop the Moura coal mine (now part of the Dawson complex) in central Queensland.

Many subsequent investments in the resources and energy sectors followed the same model: partial investment by one or more Japanese trading companies based on long-term contracts with Japanese customers—direct investment by the customers was less common—including the development of the necessary infrastructure to ensure efficient transportation of the resource to a port from where it could be shipped to Japan. This investment extended across those mineral and energy commodities of interest to a rapidly growing Japan with few resources of its own, especially iron ore, steaming coal (for electricity generation) and metallurgical coal (for steel production). Examples include the participation by Mitsui, Nippon Steel and Sumitomo in the development of the Robe River iron ore deposits in north-west Western Australia, and the one-sixth interest of Japan Australia LNG (MIMI) Pty Ltd (jointly owned by Mitsubishi and Mitsui) in the North West Shelf gas fields.

A number of aspects of this approach helped to make it work well. One central element was the use of long-term contracts which, by guaranteeing Japanese demand, provided a secure base for investment by the Australian partners. Another key element was the joint venture structure, based on minority shares in the project, rather than full or partial control of the Australian firms with which they were partners.

There have been some changes to this model, chief among them an increase in investment level by Japanese investors. In Australia's coal industry, for example, some Japanese firms are now significant investors, in both mines and coal-related infrastructure. Mitsubishi is a 50 per cent shareholder with BHP Billiton in its coal mine operations in the Bowen basin in central Queensland. This includes 50 per cent ownership of the Hay Point Coal terminal where the coal is loaded. Japanese companies are also investors in the Newcastle coal terminal. Mitsubishi is also a 50 per cent shareholder in the company selected to develop a deepwater port north of Geraldton through which iron ore from the mid-west region of Western Australia could be exported.

Another change is that, increasingly, the end users of the products in Japan are becoming directly involved in the projects, rather than relying on investment by, or in conjunction with, trading houses.

For example, two of the major customers for LNG from the North West Shelf, Tokyo Gas and Kansai Electric, have become partners of Woodside in the development of the Pluto field (Kansai Electric has established an office in Western Australia to manage its involvement; Tokyo Gas and other utilities such as Osaka Gas already have Australian offices); and Tokyo Electric and Tokyo Gas, together with Japanese oil and gas firm INPEX, are partners in the joint venture developing the Bayu-Undan gas field between Darwin and East Timor.

One example that highlights both these trends is the Ensham coal mine in central Queensland, which is 85 per cent owned by Idemitsu, a privately owned energy company, with another 10 per cent held by J-Power, a power utility company (Mayne 2008).

These trends may develop further if the approach taken to investment in and development of the Ichthys gas and condensate resource off Western Australia's Kimberley coast is followed. This is seen as a 'flagship' Japanese national project. It is the first time that a Japanese firm (INPEX Corporation) has taken the reins as operator of a major LNG project in Australia. The role of INPEX is also notable because its major shareholder is the Japanese Government. Other shareholders include Japanese oil and gas suppliers and trading companies. This project will likely be one of the largest, if not the largest, single investment in Australia by Japan.

An additional dimension to Japanese investment in the resources and energy sectors is the establishment or expansion of Australian operations by specialist service providers. For example, Komatsu, the heavy equipment manufacturer, expanded its mining equipment repair facility operations in 2008 in response to the growing demand from the mining boom; and Chiyoda Corporation, which manages the construction of LNG plants, established an Australian unit as part of its work with Woodside.

More recently, as Japan's market for beef opened, Japanese investment and demand have been key factors in the development of a grain-fed beef industry in Australia. As Box 1.4 demonstrates, this is but one aspect of a wide-ranging trade and investment relationship in the agrifood sector. These developments have had a major impact in increasing the number and quality of jobs available to Australians.

Box 1.4 Agrifood investment closely linked to trade

Food and agriculture are important components of the commercial relationship between Australia and Japan. As Japan's self-sufficiency in food production declined during the 1960s and subsequent years, Australia became an important source of imports for a wide range of agrifood products, supplying 9 per cent (in total, by value) in 2007 and ranking behind only the United States (31 per cent), the European Union (13 per cent) and China (13 per cent) (MAFF 2008).

Japan is—and has been for several decades—the single largest export market for Australian agrifood products. In 2007, of Australia's total agrifood exports to the world of \$22 billion, \$4.3 billion worth was exported to Japan, over \$1 billion more than to the next largest destination, the United States. Even as other markets have been growing in significance, especially in Asia (where 12 of Australia's top 20 agrifood export markets were in 2007), Japan has continued to purchase over 20 per cent of Australia's agrifood exports to the world, including during the 1990s decade-long slowdown of the Japanese economy.

Of particular importance for Australia's farmers, fishermen, and food and beverage producers, Japan purchases a broad range of Australian agrifood products, in contrast to the often much narrower range of products accounting for Australian exports to other significant markets (for example, since the mid-1990s, 60–70 per cent of the United Kingdom's agrifood imports from Australia have been wine). Japan is one of the most important markets for Australian beef and veal, fish and seafood, and pet food, as well as for Australian processed foods and beverages, such as ice cream, chocolate, pasta and fruit juice. In addition, Japan is also a leading customer for wheat, sugar, barley, livestock feeds such as hay, and certain oilseeds (mainly canola and cottonseed).

Japanese direct investment continues to play a major role in driving the development of Australian agrifood exports to Japan. Australia has generally tended to develop strong market shares in Japanese imports in products where there has been strong Japanese direct investment in that sector in Australia, with beef the most prominent example. Australian agrifood exports to Japan have tended to perform less well in sectors where there is little Japanese direct investment, such as in wine.

Similarly to the way that the big Japanese trading houses played a fundamental role in establishing reliable global lines of supply for sourcing minerals and energy materials as crucial inputs for Japan's post-war industrial growth, so they also moved to form close relationships with major international suppliers of key agrifood materials, in particular grains, oilseeds, meat and dairy ingredients, to supply to Japanese food processors. This was the key driver of the first stage of Japan's outward direct investment in agriculture and food production.

The initial focus of the big trading houses in relation to Australian agricultural and food materials after their establishment (or re-establishment) of subsidiaries around the time of the 1957 Agreement on Commerce was on sourcing grains, livestock feed, oilseeds and dairy ingredients; as Japanese incomes rose and food consumption expanded in volume, range and quality, sourcing also embraced meat (mainly beef) and seafood.

In the 1970s there appeared to be the start of a second stage in Japanese outward direct investment in agriculture and food production, as leading Japanese agrifood companies started to make their own direct investments in agricultural production and food processing, some in joint ventures with the trading houses, and some independently or in joint ventures with local companies. Examples included leading beer company Kirin in barley malt production in Western Australia, leading dairy company Snow Brand in dairy ingredients processing in Victoria, and Nippon Meat Packers in cattle raising, feedlotting and processing in eastern Australia. While the main purpose of this investment was still primarily to supply the Japanese market, it also indicated closer integration of supply chains between Australia and Japan.

Changes in the 1990s—the appreciation of the yen, the higher level of incomes in Japan, greater price consciousness among Japanese consumers following the end of Japan's economic 'bubble' with consequently greater competition among Japanese food companies and lower margins, and the rising incomes and changing consumption patterns in other Asian economies—contributed to a rethinking of long-term growth strategies by leading Japanese food companies. This set off a new stage of Japanese outward investment in agricultural and food production abroad, aimed at supplying not only Japan but also other markets, and at positioning these companies as regional or even global players.

As part of this, Australia was perceived as both a prospective consumer market for a range of Japanese-style food products (for example, in 1993 lactic beverages maker Yakult established a manufacturing plant at Dandenong in Victoria to supply the Australian market), and a good food production base for supplying other markets (for example, in 1993 Snow Brand Milk Products established its plant at Tatura in Victoria for processing infant milk powder for supply to Asian markets). As agricultural production contracted in some sectors in Japan, Australia was also regarded as a viable alternative production base.

Examples include leading Japanese beverage maker Ito En's setting up operations in Australia in 1994 to contract Victorian farmers to grow green tea for processing in the company's purpose-built plant near Wangaratta for export back to Japan; and Nippon Meat Packers' investment between 2000 and 2008 in establishing a state-of-the-art integrated piggery (with a 50,000-pig capacity) in the Darling Downs region of Queensland, to supply both the local and export markets. Of particular note has been the expanding role of the Kirin Group in Australia's agrifood industry. From 1998 it began building up its major shareholding in the Lion Nathan brewing group; in 2006 it acquired South Australian alcoholic beverage company Two Dogs; in 2007 it added premium Tasmanian brewer J Boag to its stable as well as dairy and juice producer National Foods; and in 2008 it acquired Dairy Farmers (DFAT forthcoming).

Australia has also come to be regarded as a significant partner for R&D in agrifood, seen for example in Sapporo's R&D partnership with the University of Adelaide in developing malting barley varieties (DFAT forthcoming).

With the advent of heightened global consumer sensitivity to food safety, product integrity, component traceability, and minimal environmental footprint, as part of the modern package of food quality, Australia's reputation for high standards and proven integrity in all these areas has been a further spur to link-ups between Japanese food and beverage companies and Australian agrifood producers all along the chain.

The benefits of trade with Japan (and the associated investment) extend beyond sales in the Japanese market. This trade played an important role in the expansion of Australia's agrifood sector in the post-war period, and in assisting Australian producers to adapt to non-Western consumer demands, with spin-offs for other markets. At the same time, the reliable supply links developed with Australia have contributed significantly to the growth and expansion beyond their home market of many of Japan's agrifood companies and the food businesses of the Japanese trading houses. With the continuing strong growth of global agrifood demand, especially in the developing economies of Asia, there is considerable scope for greater interaction between Australia and Japan (DFAT forthcoming).

While the resources and energy sectors have been focal points for Japanese investors, Japan has also been vital to the development of one of Australia's largest manufacturing export industries, passenger motor vehicles. This began in 1963 when Toyota built its first factory outside Japan in Port Melbourne. It was followed, especially between 1973 and 1978, by rival car producers and associated component suppliers. The 1990s and 2000s saw more automotive components manufacturers invest in Australia: as in East Asia and other parts of the world, parts and components suppliers (such as Denso and Hirotech) followed the vehicle manufacturers with which they were linked in Japan (Toyota and Mitsubishi respectively). Toyota's decision in 2008 to invest in the production of the Camry Hybrid will expand both the range of vehicles produced in Australia and the technology embodied in them.

Other Japanese manufacturing firms have also invested in Australia, with some firms establishing a presence before the 1940s (Hutchinson and Nicholas 1994). In the 1980s a number of consumer and industrial electronics assemblers established plants in Australia.

While some manufacturing plants have closed (including Nissan, Mitsubishi and most of the electronics assemblers), others have stayed, sometimes expanding their operations. Some of the companies that withdrew their production from Australia transformed their operations here into global research and development centres. (Similar changes occurred with many Japanese financial service providers, tourism operators and real estate purchasers: many of the investments made during the bubble years in the late 1980s, and in the early 1990s, when the flow of Japanese investment to Australia was equal to that from the United Kingdom and the United States, have since been sold.)

Getting behind the tariff wall to produce for the domestic Australian market was often an important initial motivation for investment in Australia but, as Australia's barriers have come down, the focus of some Japanese investors has broadened, with production for third-country markets growing in importance. This can be seen in the volume and importance of Toyota's exports to markets in the Middle East and Persian Gulf.

In the area of services, too, investment has been significant. Japanese investment in Australia's tourism industry played an important role in establishing Australia as a major holiday destination for Japanese holiday-makers. While Japanese tourist numbers have been declining, the importance of investment is now being seen in the other direction. Where, to date, Australia's wide open spaces, pristine beaches and unique wildlife have been major attractions for Japanese travellers, increasingly now the reciprocal benefits of Japan's fields of powder snow, allied with the favourable exchange rate between 2003 and early 2008, have drawn more Australians northwards to enjoy cross-seasonal skiing. Bilateral investment, again, has been a key element of this relationship.

Box 1.5 Australian tourism to Japan booms on the back of investment in Hokkaido

Like Japanese direct investment in Australia, investment in Japan by Australian entrepreneurs has—on a smaller scale—led to increased trade. Several Australian tourism firms have invested in the Niseko area of Hokkaido, Japan's northernmost major island. It is now possible for Australian skiers to be fitted (and pay) for the hire of skis and other equipment in Australia before travelling—during the Australian summer—to Japan's northernmost major island, Hokkaido. Some firms in the Niseko area allow travellers to pay in Australian dollars.

Importantly, one of the factors influencing the decision of Australian firms to invest and the timing of the investment was more investor-friendly regulations, in this case tax accounting reforms that clarified land values. The factors we discuss in Chapter 2—complementarity and relative distance—have influenced the success of this investment: the difference in seasons means that Australians are able to have a skiing holiday during the Australian summer, the traditional holiday period in Australia; and, while Japan is not next door, it is closer and more accessible than alternatives for skiing at that time of the year such as Canada, the United States or Europe.

Portfolio investment growing in size and importance

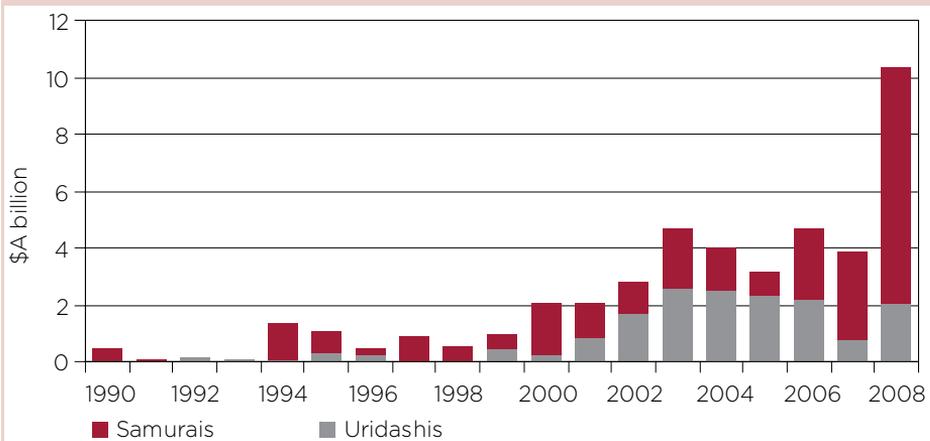
Portfolio investment is also becoming a significant part of the relationship, increasingly for structural reasons. The connection between Australia's need for external savings to finance economic development (leading to relatively high interest rates) and Japanese savers' need to find higher returns on their savings in the face of continued low interest rates in Japan—increasingly vital as retirement looms for larger proportions of the population—has resulted in a significant expansion of Japanese portfolio investment in Australia by both Japanese mutual funds and personal investors. The stock of Japanese portfolio investment in Australia, which peaked in 2004 at \$24.8 billion, increased marginally from \$19.9 billion in 2001 to \$20.1 billion in 2007. While overall levels have remained fairly stable, one change has been in Australia's importance as a destination for the offshore investments of private mutual funds: in 2007 it was estimated that about 12 per cent of these investments were in Australia, second only to investment in the United States (approximately 43 per cent); in 2001, by contrast, Australia had been the 12th-ranked destination, accounting for less than 1 per cent of such offshore investment (Australian Financial Review 2007).

Complementing the demand from Japanese investors for Australian dollar-denominated instruments, banks and companies in Australia have been looking to Japan as a source of funds. This can be seen in the growth of so-called 'uridashi' bonds (since 2001 in particular) and samurai bonds since the mid-1990s (see Box 1.6). These transactions arise from the combination of high levels of savings in Japan seeking reasonable returns and banks and companies in Australia being unable to raise capital as cheaply in the domestic Australian market or other international markets. The nature of the foreign-exchange exposure of the two countries also suggests that they are natural counterparties for swaps and derivatives to hedge foreign exchange risk: Japanese investors and firms tend to have US dollar-denominated debt assets, while Australian investors and firms tend to have US dollar-denominated debt liabilities.

Box 1.6 Raising funds in Japan: uridashi and samurai bonds

Uridashi bonds are the instruments through which many Japanese investors have invested in Australia. They are bonds issued in Japan by a company or bank (including international financial institutions such as the Asian Development Bank) denominated in a foreign currency (in this case, the Australian dollar). Typically, the foreign-exchange risk is borne entirely by the purchaser of the bonds. While these bonds were purchased by institutions, between 2003 and 2007 most were sold to individual investors (in parcels as small as A\$20,000) through Japanese securities firms. The first uridashi bonds were issued in the mid-1990s, but it was not until 2001 that they became a significant component of portfolio investment flows (Figure 1.2).

Figure 1.2
The value of Australian corporate bonds issued in Japan is significant
Australian corporate bond issuance in Japan, 1990–2008



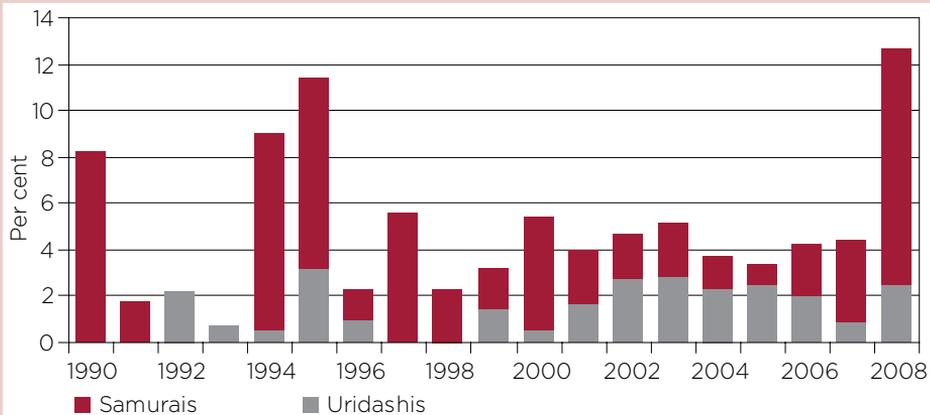
Notes: Excludes asset-backed securities and government entities' issuance; 2008 data are to 30 September.
Source: Reserve Bank of Australia.

In contrast, samurai bonds minimise the exchange-rate risk for the purchasers because they are denominated in yen. (The risk for the issuers is also minimised through foreign exchange swaps and the use of derivatives.) In contrast to uridashi bonds, samurai bonds are 'placed' with financial institutions. Before July 2007, samurai bonds were issued only by non-bank corporations because Australian banks raised their funds elsewhere.

In 2008, the importance of Japan as a source of funds has increased significantly as a result of tightening conditions in Australian and global credit markets during the global financial crisis. In particular, Australian banks have been targeting the Japanese market. The total value of samurai bonds issued by the four major banks in the first quarter of 2008 was in excess of A\$4 billion (Lefort 2008). This, together with samurai bonds issued by other Australian corporations, represented more than 10 per cent of all Australian corporate bond issuance offshore in the first three quarters of 2008, and brought the total percentage of funds raised in Japan to almost 13 per cent, up from the levels around 4 per cent of the previous seven years (Figure 1.3).

Figure 1.3
Japan grows in importance as a source of corporate funding in response to the financial crisis

Bonds issued in Japan as a share of total Australian bond issuance overseas



Notes: Excludes asset-backed securities and government entities' issuance; 2008 data are to 30 September.

Source: Reserve Bank of Australia.

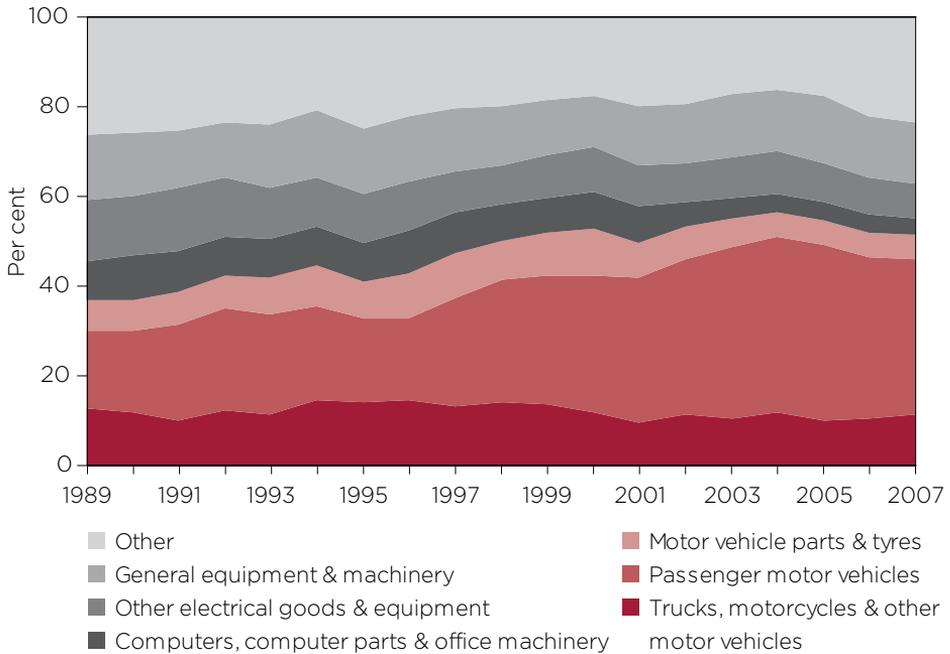
Not all rosy . . .

The clear picture from the discussion above is one of a huge and successful relationship. Nevertheless, it is also true that some further critical examination is needed of where commercial relations with Japan are headed. For although it has been highly successful in some areas, the relationship seems to have been less so in others.

There is an unusually clear distinction between the types of products sold by Australia to Japan and those sold by Japan to Australia. Japan's exports to Australia almost wholly comprise manufactures (Figure 1.4), whereas Australia's exports to Japan are heavily concentrated in primary products (Figure 1.5).

Figure 1.4
Australia's major imports from Japan comprise automotive, electrical and other equipment and machinery

Australia's merchandise imports from Japan by major category, percentage share by value, 1989-2007

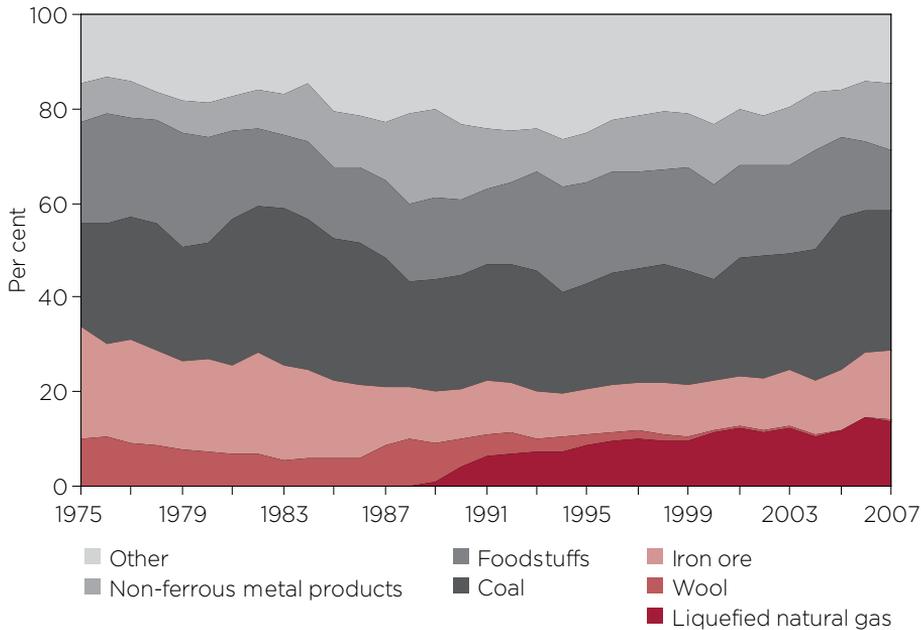


Source: DFAT STARS database.

Figure 1.5

Japan's major imports from Australia are primary products

Japan's merchandise imports from Australia by major category, percentage share by value, 1975–2007



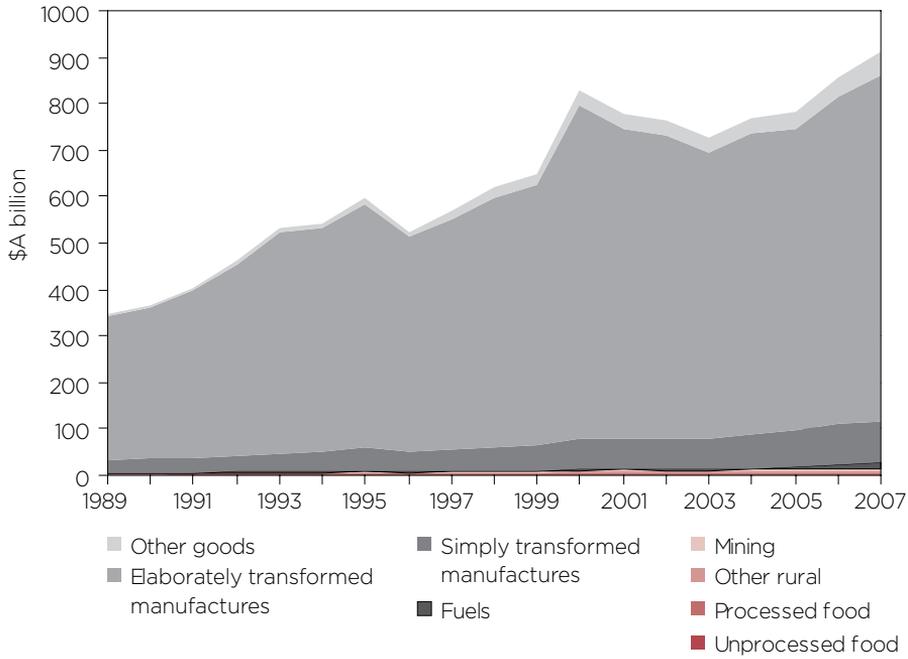
Sources: METI, *White Paper on International Trade, 1977–1986*; UN data on the DFAT STARS database.

The concentration of Japan's imports from Australia in bulk commodities is also reflected in the number of firms that export from Australia to Japan. Whereas Japan is the largest export market for Australia, it is only the ninth-ranked market in terms of the number of exporters from Australia.

These export patterns are, in fact, significantly at odds with both Australia's and Japan's patterns of trade with the world as a whole. That is because the evolution of trade patterns that is occurring in many other relationships does not appear to be happening in this one.

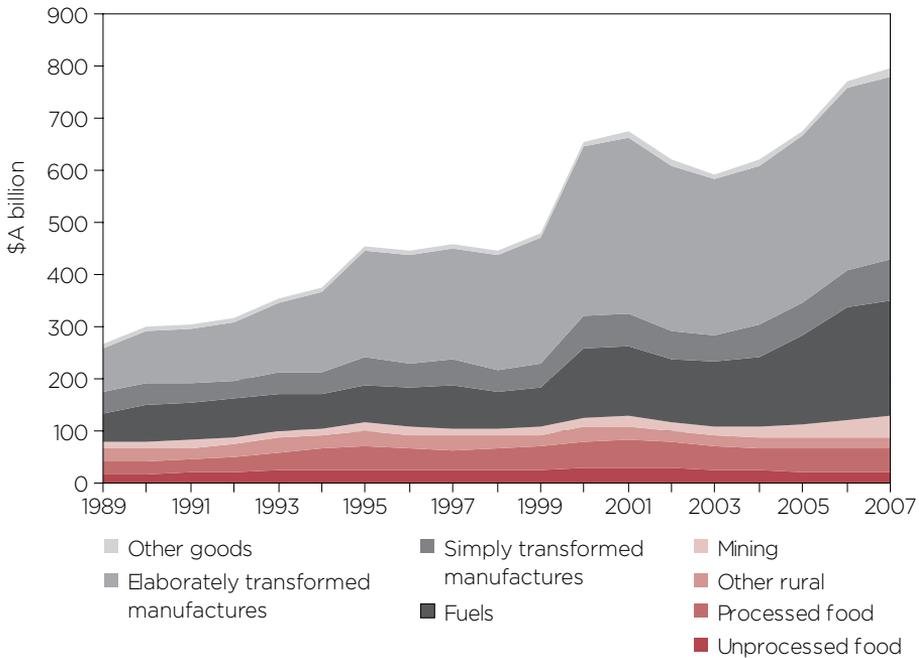
Increasingly, with the emergence of regional and global production networks and value chains, trading partners, particularly in the Asia-Pacific region, are seeing an increase in 'intra-industry' trade, in which similar items are being traded back and forth across borders. Consistent with this, Japan, while a major exporter of elaborately transformed manufactures (Figure 1.6), is also a major importer (Figure 1.7). Australia's imports, too, are dominated by elaborately transformed manufactures (to some extent a reflection of its comparative advantage in primary products), but, in addition to Australia's strength in primary products, elaborately transformed manufactures make up a significant proportion of its exports as well (Figure 1.8). However, Australia's exports of elaborately transformed manufactures to Japan are very small and not growing (Figure 1.9).

Figure 1.6
Elaborately transformed manufactures dominate Japan's merchandise exports . . .
 Japan's merchandise exports to the world by category, 1989-2007



Note: 'Other goods' are gold and confidential items that comprise almost entirely primary products or simply transformed manufactures.
 Source: DFAT STARS database.

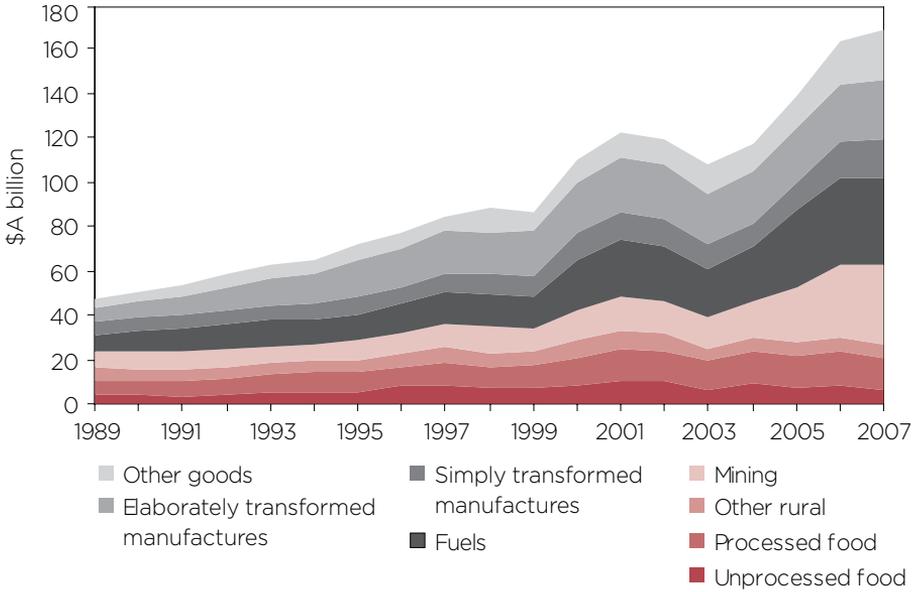
Figure 1.7
. . . but are also highly significant in its imports
 Japan's merchandise imports from the world by category, 1989-2007



Note: 'Other goods' are gold and confidential items that comprise almost entirely primary products or simply transformed manufactures.
 Source: DFAT STARS database.

Figure 1.8
Australia exports proportionately far more elaborately transformed manufactures to the world . . .

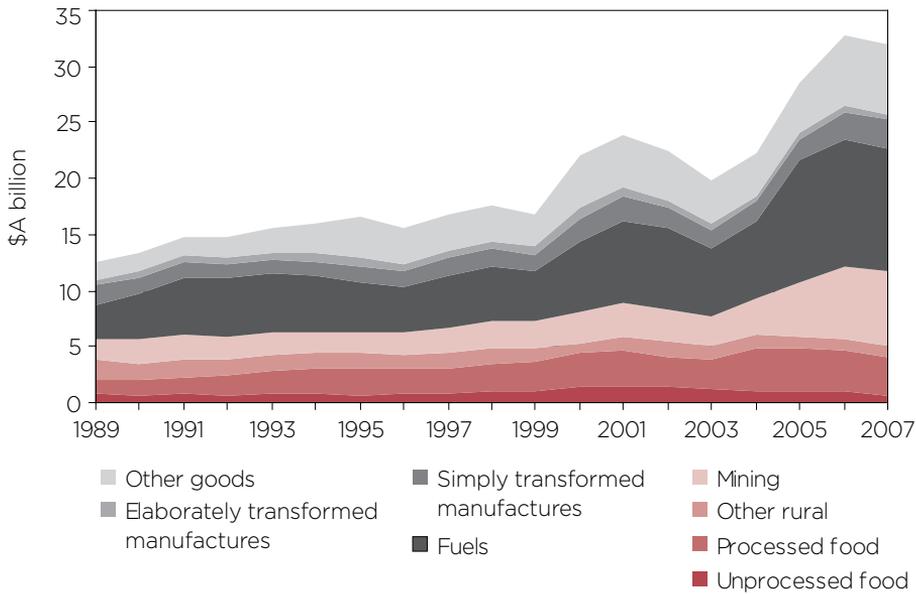
Australia's merchandise exports to the world by category, 1989-2007



Note: 'Other goods' are gold and confidential items that comprise almost entirely primary products or simply transformed manufactures.
Source: DFAT STARS database.

Figure 1.9
. . . than it does to Japan

Australia's merchandise exports to Japan by category, 1989-2007

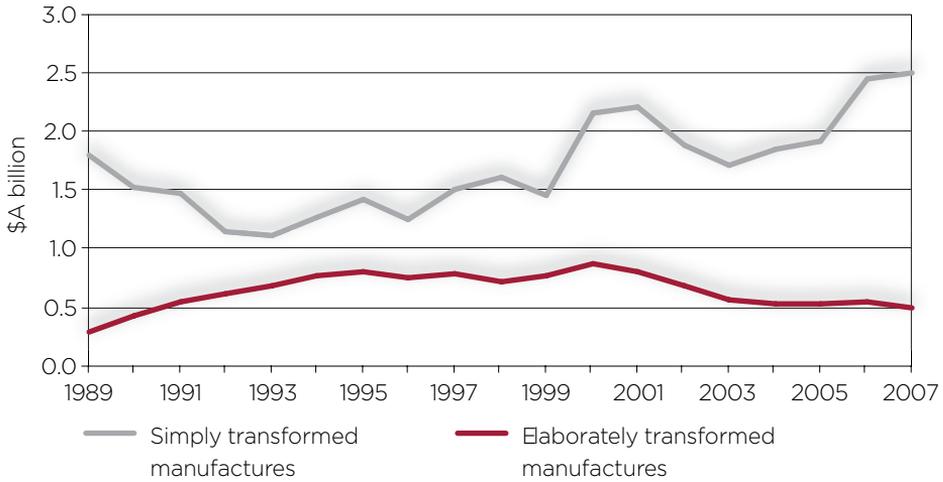


Note: 'Other goods' are gold and confidential items that comprise almost entirely primary products or simply transformed manufactures.
Source: DFAT STARS database.

Moreover, as a closer examination of the statistics on manufactures exports from Australia makes clear, the growth trend in Australia's manufactures exports to Japan (Figure 1.10) is not consistent with the trend of Australia's manufactures exports to the world (Figure 1.11).

Figure 1.10
The gap between Australia's simply and elaborately transformed manufactures exports to Japan widens . . .

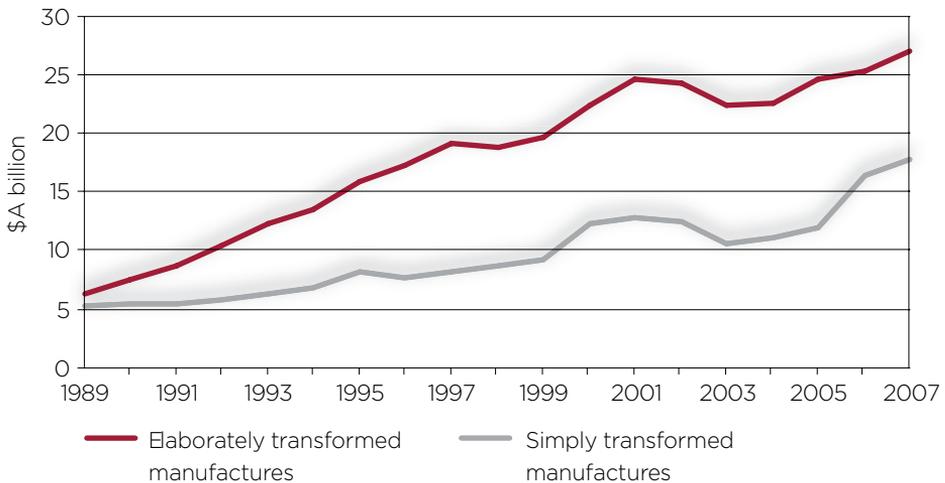
Australia's exports of simply and elaborately transformed manufactures to Japan, 1989-2007



Source: DFAT STARS database.

Figure 1.11
. . . even as elaborately transformed manufactures exports lead the way in trade with the rest of the world

Australia's exports of simply and elaborately transformed manufactures to the world, 1989-2007



Source: DFAT STARS database.

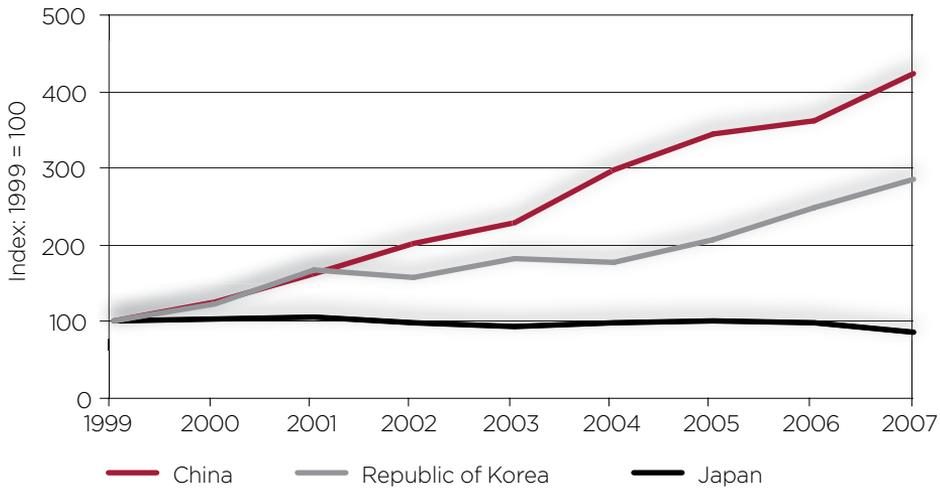
... in services as well as goods

Services trade poses a similar conundrum. For some time, both Australia's and Japan's economies have been dominated by services—in excess of 75 per cent of Australia's GDP and even more in Japan.

This has led many commentators on the relationship to posit that there is scope for a significant increase in bilateral services trade (see, for example, de Brouwer and Warren 2001). But such an increase has, to date, proved elusive. Despite the vastness of the overall trading relationship, Japan ranks only fifth as a trading partner (sixth as an export market) for Australia in services; and, worse, trade in this sector is actually falling—whereas with other major Asian trading partners (and the world) it is rising significantly (Figure 1.12).

Figure 1.12
Australia's services trade with other East Asian countries grows more rapidly than with Japan

Australia's exports and imports of services, selected countries, 1999–2007

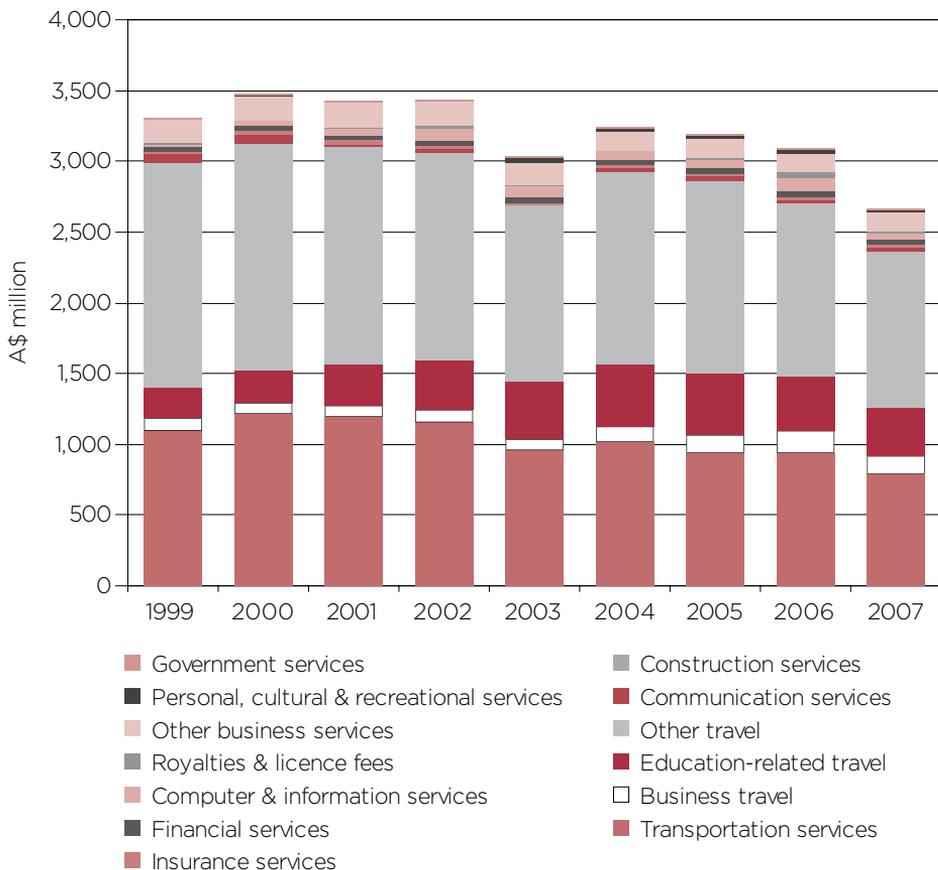


Source: ABS (2008f).

Australian services exports to Japan show tourism and transport services as the dominant components, with both declining over time (see Figures 1.13 and 1.14). Financial services exports, increasingly regarded as a significant Australian strength, are minuscule. Education and business-related travel are relatively moderate, both in absolute number—Japan (with the second-largest trade relationship) ranked sixth as a source of business visitors—and, by comparison with other markets, as a share of the total number of travellers, and show no significant signs of an increasing trend.

Nor would the situation be likely to improve if exports delivered through ‘mode three’—commercial presence in the other country—were able to be included.⁶ A survey of services trade in 2002-03 by the Australian Bureau of Statistics found that exports delivered in this way represented approximately 65 per cent of total sales of services overseas (and over 90 per cent of total sales of financial services) by Australian companies (ABS 2004). However, sales of services by Australian companies located in Japan represented only 11.8 per cent of Australia’s total services sales to Japan, the smallest proportion of any major market.

Figure 1.13
Travel and transport dominate Australian exports of services to Japan
 Australia’s exports of services to Japan, 1999-2007

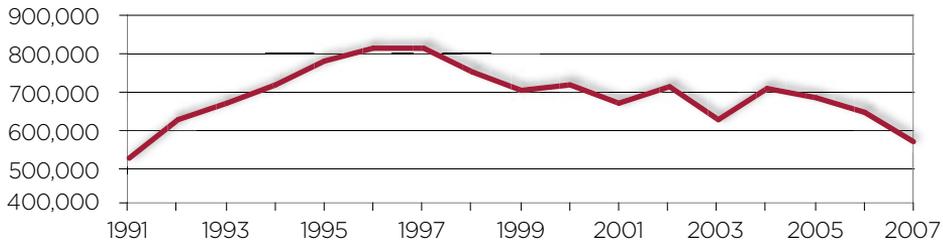


Source: ABS (2008f).

⁶ ‘Mode three’ exports are generally not included in trade in services data from the Australian Bureau of Statistics—a significant gap. In 2002-03, sales of goods and services by Australian affiliates overseas, at around \$142 billion, were approximately equal to all goods and services exports from Australia (ABS 2004).

Figure 1.14
Japanese visitor numbers to Australia trend downwards

Total visitor arrivals from Japan (holiday, visiting friends and relatives, business, education, employment and other), 1991-2007

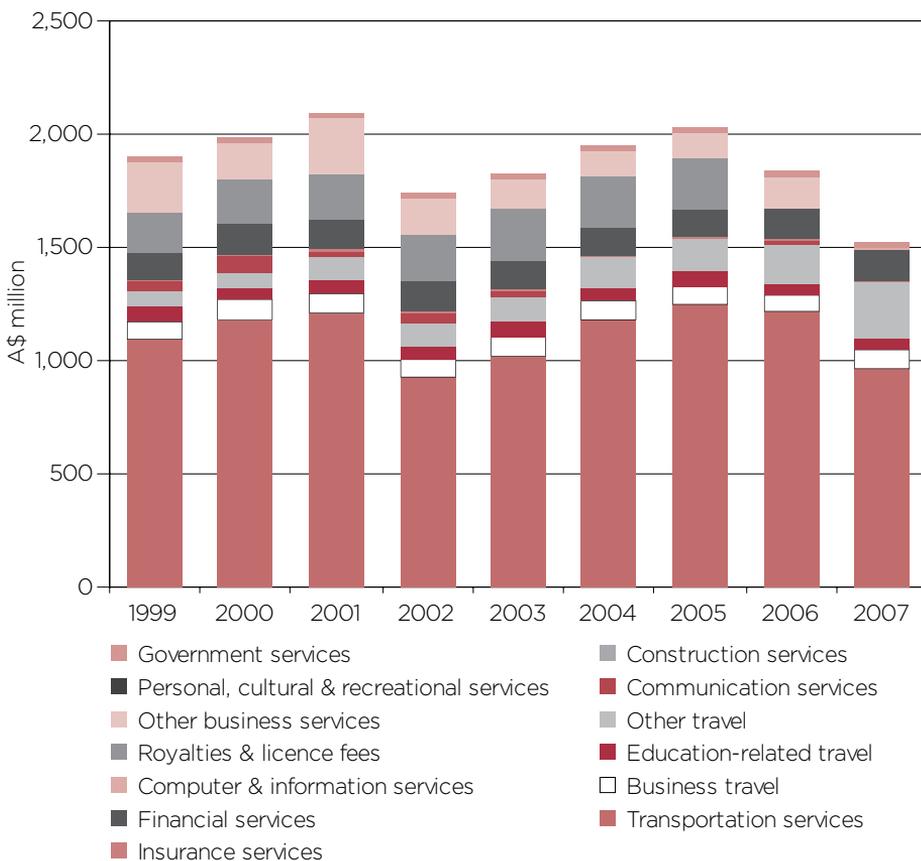


Source: ABS (2008g).

Australia's imports of services from Japan are similarly focused around transportation—unsurprisingly in light of the size of the goods trade between the two countries (Figure 1.15).

Figure 1.15
Transport services are larger than all other Australian imports of services from Japan

Australia's imports of services from Japan, 1999-2007



Note: No data are available for royalties and licence fees in 2006 and 2007, or for communications in 2007.

Source: ABS (2008f).

Again, business travel is conspicuously smaller than the size of the overall relationship would suggest, with Japan (Australia's largest export market) ranking just seventh as a business travel destination for Australia. Though education-related travel also looks relatively small, and is not growing, Japan is in fact the third-largest destination for Australians studying overseas in terms of expenditure per year. The overall picture on services, then, appears to be one of little dynamism and much reliance on external factors—such as volumes of goods trade.

Conclusions and implications

The data on trade and investment remind us that the bilateral commercial relationship between Australia and Japan is based on substantial flows of goods, services and capital; that the relationship is closely aligned with the strengths and needs of each economy; and that, as those needs and strengths have evolved, the relationship has evolved too. It is clear, also, that as Japan's and Australia's commercial interests in East Asia broaden and change, the two countries continue to benefit from their partnership in a wider range of ways, even if this is not reflected in bilateral trade and investment data. In this light, it is clear that talk of decline in the importance of the Australia–Japan relationship is indeed premature.

The same trade and investment data, and the comparison with other markets, however, make clear that commercial relations between Australia and Japan, while remaining strong and vital, are operating on two tracks. Japan is an enthusiastic customer for Australian primary and simply transformed manufactures, just as Australia is (still) for Japanese firms' manufactures, whether they are made in Japan or elsewhere. Trade in such products, even where there are very substantial barriers in place (such as in agriculture), is flowing at quite high levels. The picture on Japanese direct investment is similar: with Japanese investment in Australia's car industry now focused on Toyota and its suppliers, Japanese direct investment related to goods, too, is increasingly concentrated around energy, resources and agrifood. But beyond these relatively clearly defined and well-known strengths, the trade and investment relationship seems less robust than might be expected.

Does this matter? In one sense, the answer might seem to be no. Japan will continue to be hungry for Australian minerals and energy and, for some products, long-term contracts already in place will cement Japan's position as a dominant customer. While it is unclear whether future movements in commodity prices will continue the 2003–08 trend of increasing values for imports from Australia even while volumes varied little, contracts in place for LNG will see the volume of Japan's purchases of LNG from Australia, already larger than those of all Australia's other overseas customers combined, increase still further. The security of food supply provided by agricultural trade between Australia and Japan, equally, should ensure a healthy future for that part of the relationship. There are, therefore, strong grounds for expecting that the relationship will remain of huge importance for the foreseeable future.

But there are dangers in the relationship remaining too lopsided. The high degree of direct contact implied by healthy trade in areas such as education and business and financial services of itself creates a virtuous circle enabling early identification and exploitation of future opportunities. The lack of such contact can also be (detrimentally) self-reinforcing, as lack of knowledge leads consecutively to a failure to identify opportunities; thence to a perception that opportunities no longer exist; and then to a further loss of incentive to develop additional contact and knowledge; and so on. These themes are explored in subsequent chapters.

Key points

- The complementarity between the economies of Australia and Japan—each having what the other needs at a price it can afford—continues to be the principal driving force in the expansion of the commercial relationship.
- That complementarity is constrained by the distance between Australia and Japan, which results not only from geographic separation but also from differences such as in language, business practices and customs, technical standards, legal and political systems, and even relative standards of living.
- Overcoming the impediments presented by distance requires some effort. Where the complementarity is great, commercial incentives will lead firms to trade and invest despite the challenges. Where the complementarity is less marked, there may be a role for governments and business in working to reduce some of these impediments.
- As the economies of Australia and Japan evolve, it will increasingly be the effects of non-geographic distance rather than complementarity that shape the development of the bilateral commercial relationship.

Chapter 2

■ Shaping forces: complementarity and distance



Two powerful forces, pulling in different directions, have been instrumental in shaping the commercial relationship between Australia and Japan. On the one hand, the complementarity between the two economies makes them 'natural' trading partners. On the other, distance (in its many dimensions) between Australia and Japan has been, and remains, a significant impediment.

The relationship described in Chapter 1—one of tremendous strengths, but which has proved stubbornly resistant to moving into new areas of endeavour—is the product of the interplay between these two forces. This chapter examines the nature of both the forces and their effects to date, as the backdrop for the discussion of the future of the relationship in subsequent chapters.

The driving force: complementarity

It is the essence of a successful trade transaction that both sides of the bargain feel that they are better off for having made it—or, in other words, each has something that the other values more than what they already have. Things work better still when each side feels an interest in assisting the other to deliver what it needs.

The secret of the success of Australia's trade and investment relationship with Japan is that, from the earliest days, it has been ever thus. Australia had pearls for which there was a market in Japan; Japan had divers to help exploit the resource. Australia had wool to feed the looms of pre-war and early post-war Japan; Japan produced insulators that enabled the spread of electricity through the Australian continent. Australia has coal, LNG and uranium to power Japan's industrial sector—and Japanese buyers helped to finance the development of those resources. Japan has the affordable cars and electronic equipment Australians used to shrink their continent's vast expanse to a manageable size, as well as other consumer goods to make life comfortable. And, as the two countries have become increasingly affluent, and the thoughts of their people have turned to leisure, each has offered attractions not easily found at home—whether the coral of the Great Barrier Reef or the dry powder snow of the Hokkaido ski resorts—to travellers from the other, conveniently within the same time zone.

The strength of the complementarity can be seen in the figures: Australia has been the principal or one of the principal suppliers to Japan of a range of minerals and energy for four decades. Importantly, the strength of the complementarity is underlined by the fact that Japan's domestic production of almost all these commodities—coal, iron ore, uranium, silica, bauxite and alumina, and other minerals and base metals—has been minimal, so that Australia's domination of Japanese imports has effectively meant Australian domination of the supply of these products in Japan.⁷ Similarly, Japan has been a leading supplier of a number of manufactured goods imported by Australia; the most important of these in recent years have been cars and motorcycles, for which Japan has been the principal source.

⁷ This contrasts with the situation in relation to, for example, China, which imports large quantities of many natural resources and energy but is also a major producer in its own right, so that imports constitute a much smaller share of total consumption.

To date, these complementarities between the two economies have evolved as the economies themselves have. As we saw in Chapter 1, wool was for a long time the staple of Australia's exports to Japan, but the direct bilateral trade evaporated as Japan's looms moved offshore. However, another substantial agricultural export industry has grown up—considerably funded by Japanese investment—in grain-fed beef, of which Australia is Japan's largest supplier (displacing the United States from its long-held top rank following its problems with bovine spongiform encephalopathy (BSE, or 'mad cow disease')), in addition to the sizeable trade in traditional grass-fed beef. Similarly, as Japan's energy mix has changed, LNG (for which Australia was the third-ranked source of imports in 2007) and uranium have emerged alongside coal as highly significant imports from Australia. Australia's imports from Japan—while still concentrated in the manufacturing sector—have, likewise, shifted away from consumer electronics and electrical goods and textiles as Japan's own industry has become more capital intensive. Japan has long since ceded its place as the source of low-cost, labour-intensive light manufactures to others, and become viewed as a cutting-edge provider of top-quality, high-technology consumer and capital goods.

The constraining force: distance

If having what the other needed were all that mattered, the bilateral commercial relationship might be even larger and have been so for longer. However, concurrent with the story of complementarity has been a story of fluctuations in what we describe as 'distance' between the two countries. This concept encompasses the many potential impediments resulting from differences between Australia and Japan across a range of factors. These factors include commonality (or lack thereof) of elements such as language, business practices and customs, technical standards, legal and political systems, and even relative standards of living, as well as the traditional geographic definition of distance in terms of physical separation between the two countries. Ghemawat (2007) provides a useful framework for analysing what he characterises as the four dimensions of distance: cultural, administrative, geographic and economic (the 'CAGE' framework, set out in Table 2.1).

Focusing on this multidimensional concept of distance in analysing the Australia–Japan commercial relationship is of interest for a number of reasons. It can help us to explain what has *not* happened, as well as what has; and—through a look at how bilateral distance has been diminished throughout the history of the relationship, and where it still exists—it may provide clues to business as to how to open up opportunities for successful bilateral dealings, and to governments as to how they might go about ensuring that the conditions are right for the relationship to continue to flourish.

Table 2.1

The generic, country-level CAGE framework for distance

	Cultural distance	Administrative distance	Geographic distance	Economic distance
Country-pairs (bilateral)	Different languages Different ethnicities; lack of connective ethnic or social networks Different religions Lack of trust Different values, norms, and dispositions	Lack of colonial ties Lack of shared regional trading bloc Lack of common currency Political hostility	Physical distance Lack of land border Differences in time zones Differences in climates and disease environments	Rich-poor differences Other differences in cost or quality of <ul style="list-style-type: none"> • natural resources • financial resources • human resources • infrastructure • information or knowledge
Countries (unilateral or multilateral)	Insularity Traditionalism	Nonmarket or closed economy Extent of home bias Lack of membership in international organisations Weak institutions, corruption	Landlocked geography Lack of internal navigability Geographic size Geographic remoteness Weak transportation or communication links	Economic size Low per-capita income

Source: Ghemawat (2007: 41).

Ghemawat’s work, among others’, highlights the continuing impact of distance, in these many dimensions, on the likely success or otherwise of the trade and investment decisions of corporations. Notwithstanding the effects of globalisation—especially the impact of technological developments (in particular in information and communications), the decline in transport costs (although these are under pressure now) and the improvements in speed, efficiency and reliability (which permit companies to source inputs from foreign rather than local sources, for example), and the growth of international trade and investment—the majority of the world’s economic activity is local or regional.

All other things being equal, the level of trade and investment varies with proximity. The tools economists use to measure this effect—fitted gravity models—show that the further two countries are from each other the smaller their trade: in general, these models predict that an increase in physical distance is associated with a similar reduction in the volume of trade—that is, countries that are 5,000 kilometres apart would be expected to do only one-fifth of the trade that they would do if the distance between them were 1,000 kilometres (Ghemawat 2007: 37).⁸ Most of the largest bilateral commercial relationships have been and still are between countries that share a border (such as Canada and the United States, and France and

⁸ Note that the distance measured here is between the capitals of the countries, although some studies have measured the distance between the economic centres of gravity in partner countries.

Germany or, more recently, Mexico and the United States) or are near neighbours (such as China and Japan). This geographic proximity is often accompanied by cultural, administrative, political and/or economic similarities (frequently embodied in a preferential trade agreement between the countries, as in the case of Australia and New Zealand).

As the Australia–Japan relationship demonstrates, this does not mean that countries that are distant on one or more of these dimensions cannot trade with or invest in one another. However, these different elements of distance are likely to act as impediments to the development of a close and substantial commercial relationship. Research by Ghemawat and Mallick (cited in Ghemawat 2007) estimated that trade was greater by 42 per cent if the two countries used a common language, by 47 per cent if they were both members of a preferential trade agreement, by 114 per cent if they used a common currency, by 125 per cent if they shared a land border, and by 188 per cent if they had a colonial relationship.

Distance in the bilateral relationship

How, then, might we characterise the degree of distance, in all its dimensions, with which the bilateral relationship between Australia and Japan must contend? How have the various elements affected the relationship? And how has it evolved over time (see Box 2.1 for a summary of key developments)?

Box 2.1 Some milestones in Australia–Japan commercial relations

1853	<i>Arrival of Commodore Perry signals opening of Japan to the outside world</i>
1865	First recorded import of Australian coal by Japan
1868	<i>Meiji Restoration in Japan sees Tokugawa Shogunate overthrown</i> <i>Last ship carrying convicts from Britain arrives in Australia</i>
1888	First recorded Japanese imports of Australian wool
1889	Fusajiro Kanematsu establishes the first Japanese trading house to develop and expand the wool trade; Sydney branch set up in the following year
1890s	Efforts made by Japan and some of the Australian colonies to establish trading links
1897	Queensland adheres to the Great Britain–Japan Treaty of Navigation and Commerce Japan opens a consulate in Sydney
1900	Japan imports wheat from Australian colonies
1901	Japan is the 13th-largest trading partner of the newly federated Australia
1902	New South Wales appoints a commercial agent in Japan
1905	Jo Takasuka and his wife Ichiko travel to Australia and make the first sustained attempt to grow rice in Australia, on the Murray River, near Swan Hill, in the north-west of Victoria
1909	Mitsui is the first of the major Japanese trading houses to establish an office in Australia
1914–18	<i>World War I—Australia and Japan allies</i>
1915	Japan seeks a trade agreement with Australia
1930–31	Japan is Australia's third most important trading partner
1935	Australian Government appoints a trade commissioner to Japan

1936	Australia implements a trade diversion policy (which limits imports from Japan) as part of western sanctions in response to Japanese abrogation of the naval arms control treaty Japan's retaliation (restricting imports from Australia) leads to an uneasy settlement
1938	Concerned about security, the Australian Government bans iron ore exports after Japanese companies had secured the rights from the West Australian Government to mine and export iron ore from Yampi Sound
1941	Trade suspended when Japan enters the Pacific War
1947	Australian companies are allowed to trade with Japan under controlled arrangements
1950	In response to balance of payments problems, Australia imposes import restrictions on imports from all countries, but the tighter controls imposed on Japanese goods cause a dramatic reduction in imports
1951	<i>Signing of the San Francisco peace treaty, which formally ended World War II</i>
1953	Japan seeks trade talks with Australia
1955	Japan joins the General Agreement on Tariffs and Trade; Australia (like 13 other GATT Contracting Parties) invokes Article XXXV to allow continued discrimination against Japan
1956	Australia and Japan sign the first post-war bilateral, intergovernmental agreement (on aviation) and commence negotiations on an intergovernmental trade agreement Australia lifts all Japan-specific visa restrictions imposed during and after World War II
1956-57	Japanese trading companies (re)open offices in Australia to take advantage of the changed trading environment
1957	Agreement on Commerce between the Commonwealth of Australia and Japan signed
1960	Australia lifts many restrictions on exports of iron ore
1963	Renegotiation of the Agreement on Commerce: Australia agrees to give up the right to impose safeguards in the event of a surge in imports and to accept full GATT obligations towards Japan Western Mining Corporation signs a contract to supply iron ore to Japanese steel mills
1966-67	Japan surpasses the United Kingdom to become the largest market for Australian exports
1973	<i>Abolition of the White Australia policy</i>
1976	Basic Treaty of Friendship and Cooperation (known as the Nara Treaty) signed
1976-77	Japan's share of Australian exports of goods and services reaches its peak of 31 per cent
1985-86	Imports from Japan peak at 20 per cent of Australian imports of goods and services
1986	Tensions in the trade relationship run high after Japanese buyers force significant price reductions in annual negotiations on coal prices and volumes
1996	Two-way trade declines for the first time in 40 years
2007	Australia's two-way trade with China exceeds that with Japan for the first time Negotiations commence on a bilateral free trade agreement between Australia and Japan

Cultural distance

Cultural distance encompasses the many factors—including language, shared ethnic networks, the impact of values (especially trust) and religion—that arise from the interaction of people. The patterns of investment and services trade that exist between Australia and the world suggest that cultural distance is a particularly important factor in these areas. Australia's largest investment relationships—in both directions—are with the relatively culturally proximate United States and Great Britain—despite the geographic distance.

The transformation in bilateral cultural distance over the 150 years since the first export of coal from Australia to Japan could hardly be more remarkable. Mutual understanding has gone from an initial zero (reflecting the *sakoku* or 'closed country' policies of Japan during the Tokugawa era) through the awakening in the early years of the 20th century of a realisation in each country that goods from the other might be welcome even if migrants (courtesy of Australia's own partial *sakoku*, the White Australia policy) were not; via pre-World War II suspicion, wartime enmity and residual hostility in the immediate post-war era; by way of caution as bilateral trade and later investment started to increase with Japan's emergence as a major economic power; through increasing people-to-people contact as more young Australians studied Japanese language and culture and brought this knowledge to their careers, and as more Japanese people visited Australia for business or as tourists; to arrive at a current relationship of significant friendship and familiarity in which repeated surveys rank each country as among those most liked and trusted by the people of the other, and which, increasingly, is being reflected in the growth of intimacy and cooperation beyond the commercial arena.

Examples of institutionalised efforts to reduce cultural distance include the Australia-Japan Business Cooperation Committee and its Japanese counterpart, the Japan-Australia Business Cooperation Committee, some of the early leaders of which made considerable efforts to understand Japanese (and Australian) language and culture, as well as business practices; programs of Australia's (now-defunct) Asian Studies Council; the Australian National University's Australia-Japan Research Centre, which specialises in enhanced understanding of the two countries and their relationship; the Australian government-funded Australia-Japan Foundation; and the annual Australia-Japan Council, which brings together high-level business and government representatives from both countries. The Australian Government provided support for the development and operation of Australian studies programs in Japanese universities, and, at the more popular level, for a significant Australian presence at international expositions in Japan, most recently the Aichi Expo of 2005 (see Box 2.2). Australia has been one of the targets for Japanese Government-funded programs such as the Japan Foundation, which has promoted Japanese language and culture in Australia, and the Japan Exchange and Teaching (JET) program through which many young Australians have experienced Japan as teachers, leading to longstanding personal and professional connections. As well, there is a network of 45 Japan-Australia societies in Japan and 15 counterpart Australia-Japan societies active in Australia. Another non-government initiative is the number of exchange programs organised by groups such as Rotary that enable young people to spend time in the other country.

Box 2.2 Australia at Aichi—Australia's Japan savvy

Australia's popular pavilion at the 2005 Aichi World Expo in Nagoya (capital of Aichi prefecture) was a snapshot of change in the relationship between Australia and Japan.

Thousands of young Australians applied for the 60 positions as pavilion attendants, despite the high language proficiency requirements. As a result, the Australian pavilion stood out among the 120 countries represented at the Expo for its Japanese-speaking staff, and was consistently rated in the top five national attractions at the Expo.

Moreover, most of the Australian attendants had studied Japanese culture, had already experienced living in Japan and wanted to use their skills in an environment such as the Expo, resulting in an outwardly friendly and hospitable atmosphere that attracted Japanese people visiting the Expo. The evident skill of the staff was, of itself, a profound advertisement for the pavilion's promotion of Australian education services.

Other advantages of the Australian Government's growing engagement with Japan and the rest of Asia over more than 50 years were also evident, particularly in the cultural and business aspects of the pavilion's operations. Organisers were able to call on a large pool of entertainers who had experience touring Japan and other parts of Asia, which enabled audiences to readily identify and appreciate the performances. Strong existing business links between Australia and Japan laid the foundation for more than 200 functions, including 43 business events that strengthened existing business links in the Chubu region (the region of nine prefectures in central western Honshu, including the Aichi prefecture) as well as sowing the seeds for greenfield projects.

Despite these efforts, and the success that has been achieved, bilateral cultural distance remains significant. Most critically—given the interest in overcoming the apparent difficulties experienced in expanding the relationship beyond areas of clear complementarity—there are some crucial areas in which, *relative to the relationships both Australia and Japan have with other major commercial partners*, bilateral cultural distance seems to be increasing markedly.

Migration appears to be a particularly important factor in determining flows of both trade and investment, in large part, apparently, because of its capacity to enhance information flows between the countries concerned (Dolman 2008). In this area, it is clear that considerable distance remains. The numbers of Japanese living in Australia and Australians living in Japan are extremely low compared to the incidence of migration in Australia's relations with most other major and emerging trading partners. Japan is not a significant source of migrants to Australia, either overall or recently in either the skilled or business migration categories, despite the size of the bilateral commercial relationship. It was the fifth-largest source of working holiday visa holders in 2006–07—behind the United Kingdom, the Republic of Korea (which had more than two and a half times as many working holiday-makers visiting Australia as Japan), Germany and the Republic of Ireland.

The education relationship, too, is critical, given the strength and depth of the links that arise from long-term study. Japan has retained a significant position as the eighth-largest source of foreign students in Australia, but numbers are broadly steady (see Box 2.3) and have been falling slightly in the past two to three years (although official figures do not pick up when visitors from Japan are (legitimately) undertaking short-term studies while on working holiday or tourist visas). For its

part, Australia has maintained its interest in study in and of Japan at a level that is relatively high by western standards—Japan is the third-largest destination for Australians studying overseas and the largest foreign-language destination; but numbers are dwarfed by the huge numbers of students from other regional countries undertaking studies in Japan. Moreover, whereas students from China, the Republic of Korea, India and other major trading partners of both countries have tended to travel to Australia or Japan for the study of disciplines such as engineering or management, the principal focus of students travelling in both directions bilaterally has tended to be on the language or the culture of the other—something arguably less likely to lead directly to business links since it provides students with less direct exposure to the business strengths of the other country.

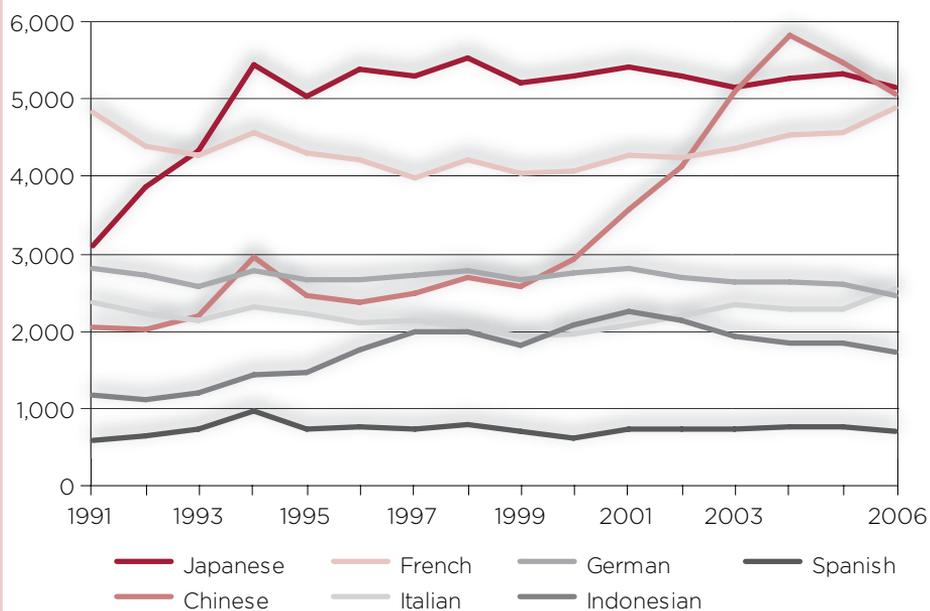
Box 2.3 The importance of education in breaking down distance barriers

Education is one of the keys to bridging cultural and political distance—particularly in the case of a bilateral relationship such as that between Australia and Japan, where language, history and culture differ significantly. Since the late 1980s, when the boom in Japanese language education occurred, Australia has been relatively well served for expertise in this area. However, although Australia remains the home to a number of tertiary institutions regarded as centres of excellence for Japanese studies, this situation may be changing both in relative and absolute terms. Among Year 12 students the recent trend has been for enrolments in Japanese courses to be relatively static, notwithstanding continuing government support (including through the National Asian Languages and Studies in Schools Program), while an increase in Chinese studies mirroring that in Japanese in the early 1990s has occurred (see Figure 2.1).

Figure 2.1

Year 12 school numbers studying Japanese hold steady

Total Year 12 enrolments in language courses in Australian schools, 1991–2006



Source: Schools Group, Department of Education, Employment and Workplace Relations.

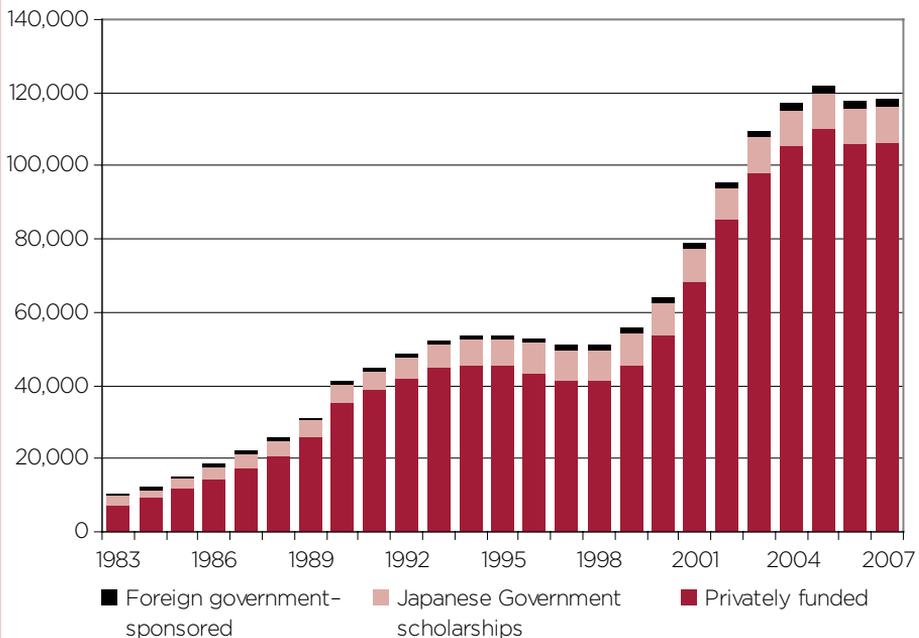
A similar trend is noticeable at the university level. A 2003 survey of 33 Australian universities found that there had been a huge rise in demand for Japanese studies before 1989 as evidenced by a rapid rate of increase in enrolments. This was followed by slower but continued growth until 1996. Between 1996 and 2003 (the latest data recorded in the joint Australian–Japanese study), enrolment numbers generally showed a declining trend across the 33 universities surveyed (JF and AJRC 2004).

Again highlighting the erosion of any advantage Australia might have had in this area in relative terms, Figure 2.2 shows that the total number of overseas student enrolments in Japan has increased rapidly in the past ten years. Numbers of Australian students in Japan, however, have remained relatively static at around 350 since the early 2000s—and in 2007 comprised only 0.28 per cent of total overseas enrolments.

Interestingly, while traditionally not a major provider of international education, Japan is emerging as increasingly attractive to students from many of the markets to which Australia is providing education. Japanese development assistance programs that have been targeted at developing countries in the region are part of the reason for this, but it is evident that Japan is also attracting substantially more privately funded students.

Figure 2.2
More and more foreign students study in Japan, especially privately funded ones

International students in Japan, total and by source of funds, 1983–2007
 (as of each May 1)

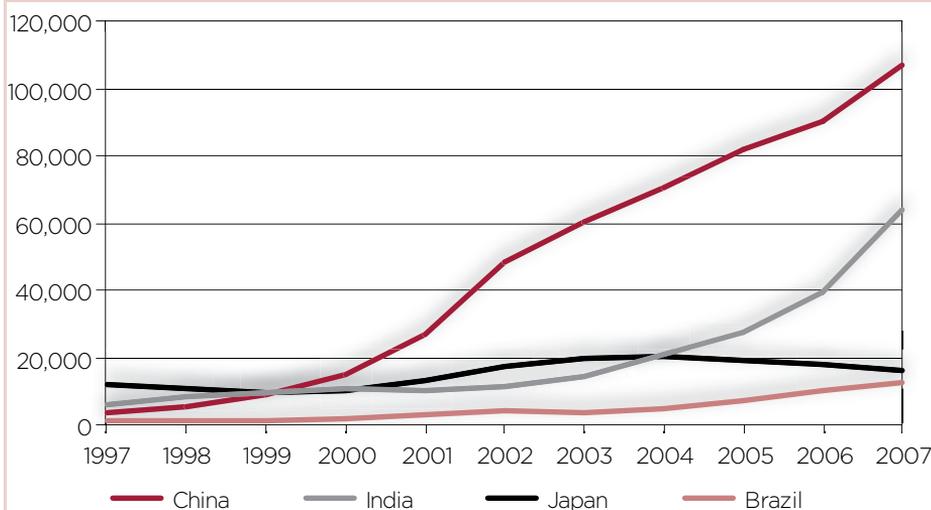


Source: Japan Student Services Organization, <www.jasso.go.jp/index_e.html>.

For its part, Japan has traditionally not been a major source of overseas students for Australia (unsurprisingly, given the highly developed nature of its education system, and the relative prestige attached to attendance at major Japanese, rather than overseas, institutions in the Japanese employment market), but it has been a significant one. From a Japanese perspective, Australia remains a popular choice: in 2006 and 2007 it was the second-ranked destination for higher education behind the United States. That said, it has declined markedly in *relative* importance in the past ten years. Since 1997, total foreign student numbers in Australia have more than tripled, and enrolments from some emerging economies, especially China, India and Brazil, have grown phenomenally while those from Japan have grown only slowly (by a total of 32 per cent) over the whole period, and have been declining in absolute terms since 2004 (Figure 2.3). The decline has been particularly pronounced in the ELICOS (English Language Intensive Courses for Overseas Students) sector (Figure 2.4), which is particularly price-sensitive, suggesting that exchange rate movements might have been influential.

Figure 2.3
Japanese student numbers fall slightly while those from selected developing countries grow rapidly

Numbers of students from Japan, China, India and Brazil studying in Australia (all sectors), 1997–2007

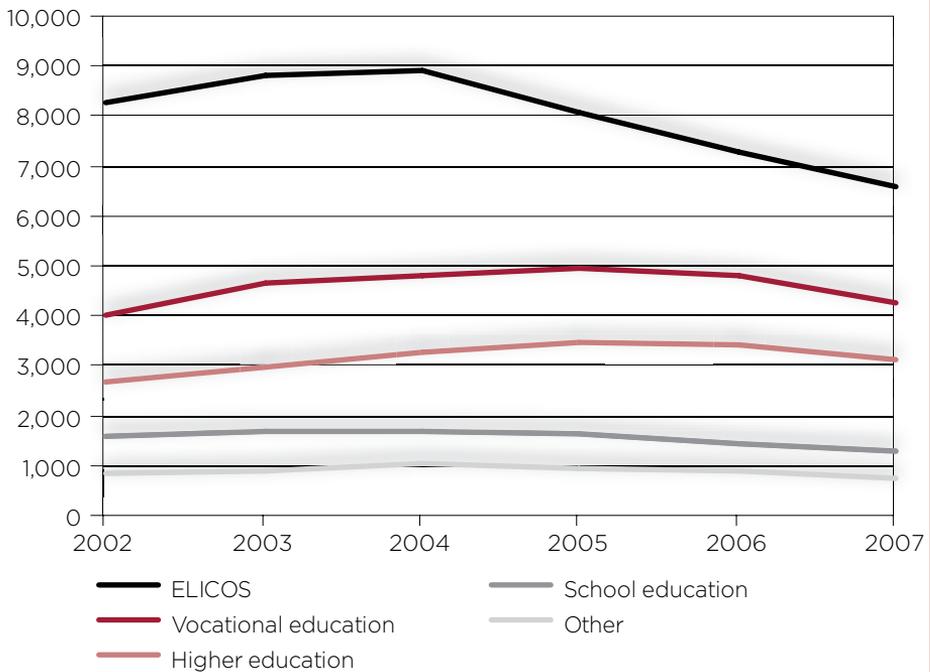


Source: Australian Education International Statistics, Department of Education, Employment and Workplace Relations.

Figure 2.4

Fewer Japanese come to Australia to study, especially ELICOS

Japanese international student enrolments in Australia by sector, 2002–07



Note: ELICOS = English Language Intensive Courses for Overseas Students.

Source: Australian Education International Statistics, Department of Education, Employment and Workplace Relations.

These numbers do not present the complete picture, as there have been positive developments at the secondary school level. Australia has become the most popular destination for Japanese 'school visits' (either *shugaku ryoko* (school excursions) or *kenshu ryoko* (school study tours)), with almost 50,000 primary and secondary school students travelling to Australia in 2006 as members of school parties. The challenge will be converting the interest resulting from this relatively superficial contact into return visits that lead to the development of deeper relationships.

One factor in the number of Japanese students studying in Australia, and vice versa, is the formal links between Australian and Japanese institutions (even though many of these agreements were more about opportunities for staff sabbaticals than student exchanges (Pokarier 2006)). In 1994, there were 133 such agreements; by 2002 the number had increased to 513, of which 299 were with private institutions (Pokarier 2006). Governments, too, have recognised the importance of cooperation and, in 2007, Australia and Japan signed the Memorandum on Cooperation in Education, which formalised a framework for new cooperative activities at both the governmental and institutional levels.

Administrative and political distance

The administrative–political dimension of distance includes the laws, policies and institutions by which a country is governed and its economy operates. While there are significant similarities between Australia and Japan—both stable democracies with well-established legal systems—for most Australian businesses seeking to do business with Japan, the devil is in the detail. The very different histories of the two countries and the absence of a shared political, legal or administrative heritage mean that many of the ways that laws are made and enforced and the administrative practices—most notably the use of administrative guidance by powerful Japanese government ministries to ‘encourage’ (or ‘discourage’) certain activities by companies—are different and can affect perceptions about opportunities for commerce. So, too, can the different approaches to corporate law and corporate governance, which, in practice, limit the managerial oversight of shareholders, together with policies that have traditionally discouraged inward foreign direct investment.

Despite these many differences between the two countries, there are some administrative commonalities that have had the effect of diminishing distance. For example, one consequence of both Australia and Japan driving on the left-hand side of the road is that Australia became the third-largest export market for motor vehicles produced in Japan. (Japanese motor vehicle companies with plants in North America and Europe often source cars for their local markets from those plants rather than from factories in Japan.)

While trade and investment can (and often does) take place in their absence, intergovernmental agreements and institutions can facilitate commerce. As the membership and influence of the World Trade Organization (and before it the General Agreement on Tariffs and Trade) grew, the multilateral framework provided a set of rules designed to engender security and predictability in trade, making traditional bilateral agreements less important than they once were. However, the recent proliferation of preferential agreements—free trade agreements in Australian parlance, economic partnership agreements in Japanese terminology—has added another dimension to intergovernmental frameworks.

The Agreement on Commerce between the Commonwealth of Australia and Japan, signed in 1957, was a successful example of a traditional bilateral agreement. Such traditional agreements focused on reducing the impact of or removing the administrative barriers that made commerce expensive and/or difficult, or even prohibited it.

The Agreement on Commerce did just that: it led to the removal of the restrictions that had disrupted trade since the 1930s. It provided a more certain and secure framework for firms to do business, and began a new phase in commercial links. It increased the pace at which commercial ties developed. The changes in rules, together with the public signal in both countries that such ties were welcome, both contributed to this expansion.

Box 2.4 Why the 1957 Agreement on Commerce was so significant

The Agreement on Commerce removed most trade restrictions between Australia and Japan in 1957. Principal among these restrictions on the Australian side were import licences, used extensively to protect domestic industry, support trade with the United Kingdom and ration the use of foreign exchange (in an era of fixed exchange rates and a shortage of US dollars in sterling-bloc countries). Foreign exchange was also an issue in Japan, and the Agreed Minutes attached to the Agreement on Commerce recorded Japan's commitment to ensuring foreign exchange limitations and other non-tariff measures were not used to constrain imports of wool.

Tariffs were also a key area of concern for both countries. The Agreement on Commerce provided for tariffs to be levied on the basis of MFN (most-favoured-nation, i.e. non-discriminatory) treatment. When Japan joined the GATT in 1955, 14 Contracting Parties invoked Article XXXV, which allowed them not to extend MFN treatment to Japan. Australia was the first of those 14 to commit to revoking its use of Article XXXV and treating Japan as it did other parties to GATT.

Both countries saw benefits from the trade relationship. Japan sought such an agreement because of its interest in Australian raw materials, and as a promising developed country market for its manufactures. While strong foreign exchange and cultural pressures in Australia favoured trade with the United Kingdom, even in the early post-war period Australia sought to source many of its specialised needs (such as insulators for the electricity grid) from Japan.

The Agreement proved successful. While trade had expanded significantly in the 1950s before the Agreement was negotiated, it both provided a more secure and predictable legal basis for commercial ties and highlighted, in Australia, that Japan was once again a respectable trading partner. The Agreement came about despite some strong opposition within Australia at bureaucratic and political levels and from Australian manufacturers.

The Agreement on Commerce was only the first step in removing restrictions on bilateral commercial ties. In 1960 the Australian Government relaxed many of the restrictions on exports of iron ore, and in 1963 removed the embargo. The Agreement itself was renegotiated and amended in 1963 after the intervening years had seen continued growth in two-way trade and a diminution of many of the concerns (for example, on exchange rates) that had been reflected in the original text. The 1963 changes removed the remaining discriminatory treatment by Australia (Article V, which provided a broad right to impose safeguards, was deleted; this right applied to both parties but had been included at Australia's request). As well, the exchange of notes between the Australian and Japanese ministers confirmed that Australia would no longer invoke GATT Article XXXV—although Australia had levied the same tariffs on Japanese imports as those from other countries since 1957, it had retained the right on other issues to treat Japan differently from other GATT Contracting Parties.

In 2007, 50 years after the Agreement on Commerce helped expand trade and investment ties, negotiations began on a free trade agreement/economic partnership agreement between Australia and Japan, which both governments hope will provide further assistance for business so that trade and investment will continue to flourish in the future.

While the Agreement on Commerce was not the first intergovernmental agreement between Australia and Japan after the Peace Treaty of 1951—an air services agreement was signed in 1956—it heralded an increase in governmental efforts to expand the relationship. The two countries negotiated agreements covering issues as diverse as fisheries, double taxation, culture and the peaceful uses of nuclear energy. Many of these agreements were intended to facilitate the development of commercial relations, often in particular sectors. These issue-specific agreements complemented the all-encompassing Basic Treaty of Friendship and Cooperation (commonly known as the Nara Treaty) of 1976. New agreements continue to be negotiated as needed: in January 2008 the two governments signed the Convention for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income, an update of the 1969 double taxation treaty that addresses issues affecting business today and reflects the current tax treaty policies and practices of the two countries.

Political distance has also diminished significantly, particularly if one considers starting points of almost complete mutual isolation and ignorance (1865 when the first trade was recorded) or absolute hostility (the immediate aftermath of World War II). Intergovernmental relations have progressed particularly rapidly in the past ten years, with Australia and Japan seeing each other as natural partners on a range of issues that extends well beyond the commercial—for example, cooperation between defence forces in Iraq and a trilateral security dialogue with the United States, as well as commitment to the Asia-Pacific Economic Cooperation forum (APEC) and cooperation on a range of regional architecture proposals. The Japan–Australia Conferences, of which four have been held since April 2001, also provide key participants in the relationship from government, business, the media, academia and the broader community with additional, less formal opportunities to share perspectives and make recommendations to ministers on issues of importance for bilateral relations. The current negotiations on a free trade agreement have the potential to culminate in extra institutional support to further reduce political distance. Governments at lower levels have also sought to build closer links: by 2008 there were 85 sister-city affiliations, six sister-port relationships and six sister-state relationships, as well as 11 sister relationships between broadcast stations.

Geographic distance

Geographic distance is important, particularly in the case of merchandise trade and especially when higher fuel prices lead to increased transport costs; and obviously presents a considerable potential impediment to trade between Australia and Japan. The two are a substantial distance apart. However, the negative effects of the 5,000-plus kilometres between them are offset by some countervailing factors; distance is relative as well as absolute. Iron ore imports to Japan from Australia have to travel less than one-third of the 18,000-odd kilometres from the other key supplier, Brazil, for example; and Japan, though distant, is still nearer than some of Australia's other major sources of supply of motor vehicles, such as Europe. Shipping routes are relatively direct, and the distance is short enough to permit direct flights (which encourages both tourism and air freight). The lack of a significant time difference is an important benefit to services trade in particular. For agricultural trade, the northern/southern hemisphere difference in seasons has provided opportunities for Australian producers, often in conjunction with Japanese investors, to grow varieties of fruit and vegetables favoured in Japan for sale during the months when local produce is not available.

Geographic distance is more than just the proximity or lack thereof between Australia and Japan: it also reflects the transport and communications infrastructure as well as the ease and cost with which they can be used. Here again, there does appear to be some evidence that developments in other commercial relationships are having some impact on Australia–Japan relations through the economics of air services. The phenomenal increase in business travel—passenger airlines’ largest profit driver—from both countries to India and China appears to be resulting in a decline in the relative profitability of airline services between Australia and Japan (where business travel is relatively low and not increasing). Unsurprisingly, given the highly competitive nature of the airline industry internationally, this is leading carriers to redirect planes away from Australia–Japan routes to more lucrative destinations, with consequent negative effects for other bilateral industries such as tourism.

Economic distance

Economic distance between Australia and Japan is relatively small. Both are wealthy economies with per capita incomes of a similar order of magnitude. Although Australia is a much smaller economy than Japan, it has, as we have seen, had a high propensity to consume Japanese products, and Japan’s absolute size, in particular, is an important factor encouraging exports from Australia. Even in the past, the complementarities between the economic structures of the two meant that differences of wealth had little impact on the ease of commerce between Australia and Japan. While there was a widespread perception in Australia of a lower standard of living in Japan in the early 20th century and when Japan was recovering from the devastation of war, the Japanese ‘economic miracle’ led fairly rapidly to production that relied on low labour costs (such as in textiles and clothing) moving offshore from Japan, thus diminishing opportunities for arbitrage based on cost differences between the two countries in that area.

An important economic factor is the current size of the bilateral trade and investment relationship itself. It is generally the case that significant economic interaction in certain sectors will create the links that lead to an expansion of economic relations into other fields. As we saw in Chapter 1 and as we discuss further in Chapter 4, this has perhaps been a weaker factor in some sectors than might have been expected.

Differences of economic structure, and the political consequences of this, continue to have some impact on economic and trade policy measures affecting bilateral trade. Australia and Japan have both opened their economies significantly to the world in the past 30 years, and tariffs in general are at very low levels, befitting developed economies. However, Japan’s low level of comparative advantage in agriculture, combined with a strong political imperative to preserve the sector despite its poor productivity, has resulted in ongoing high levels of protection, both through border measures such as tariffs and quotas, and through large subsidies, directly affecting the prospects for increased trade in an area of clear complementarity.

Unilateral and multilateral factors

There are also a number of other factors—some specific to an individual country, others consequent upon the nature of international interaction—that can affect the distance between two countries. Some of these are obvious, observable realities: for example, research shows that land-locked countries typically trade less than their counterparts with direct port access. For Australia, geographic remoteness—both of settlements within the country from one another, and of Australia from the rest of the world—has long been noted as an impediment to economic and other integration. Some characteristics of Japan are often identified as potentially affecting the extent to which it will develop commercial ties internationally. These include the relatively small percentage of Japanese who have emigrated or live overseas, especially by contrast with the larger (in both absolute and percentage terms) diasporas from India and China which have played significant roles in developing those countries' trade and investment links with the world. Another is the longstanding cultural and other traditions associated with agricultural production and lifestyle.

Some such factors are clearly relatively immutable—location is obviously a historical and political reality about which countries can generally do little. Others, however, may be subject to change—for example, Japan's post-Meiji development was generally based on a firm policy stance resisting dependency on inbound foreign direct investment, a stance that continued in the post-war era (LaFeber 1997) and continues to confound a number of would-be investors, but recent Japanese government policy documents have emphasised the importance of foreign direct investment.

The interaction between complementarity and distance

The idea that patterns of trade and investment between Australia and Japan can be analysed in terms of the interaction between complementarity and distance is not, of course, a new one. Drysdale and others have done much research in this area which posits that the *intensity* of trade (that is, the extent to which trade patterns between two countries correlate with their overall importance in world trade) could be explained as the product of two variables: complementarity and 'bias'—a variable equivalent in many respects to the concept of 'distance' that we have used in this report.

Broadly speaking, Drysdale's conclusions (Drysdale 2006, reproduced in Tables 2.2 and 2.3) demonstrated that the intensity of overall trade between Australia and Japan has consistently been far larger than would be predicted purely by the relative size of the Japanese and Australian contribution to world trade (a larger size than expected is shown by figures over 100); that complementarity—the degree to which each exports goods that the other imports in large quantities—has played a major role (again, figures over 100 show a positive contribution); and that bias—which correlates broadly with what we have called distance—has also played a substantial and almost always positive role (again, figures over 100). The notable and predictable exceptions to this were the immediate pre-war period through to 1954 for Australian exports to Japan, and the whole of the pre-war period in respect of Japanese exports to Australia, when the strength of former colonial ties with the United Kingdom was overriding.

The bias indexes for Japan's imports from Australia and Australia's imports from Japan also show that government actions can and do make a difference: the decline between 1935 and 1937 highlights the effect of the trade restrictions introduced by Australia and Japan's retaliatory measures. The much greater increase between 1954 and 1965 demonstrates that the 1957 Agreement on Commerce had a major effect as a policy and institutional change. Note that the bias and complementarity components of the index have fallen from highs in the late 1970s, reflecting economic restructuring in both Australia and Japan, with consequent changes in both countries' trade patterns and composition of trade.

Table 2.2**Distance matters, and so does government policy, for both Japan's imports from Australia . . .**

Complementarity (C), bias (B) and intensity (I) indexes for Japan's imports from Australia, 1913–2000

	1913	1929	1935	1937	1954	1960	1965	1970	1975	1980	1985	1990	1995	2000
C	57	139	147	183	190	198	204	194	217	216	186	194	151	156
B	170	171	203	82	151	233	240	157	158	138	166	148	148	140
I	97	238	298	150	286	462	490	316	348	300	310	295	229	219

Source: Drysdale (2006).

Table 2.3**. . . and Australia's imports from Japan**

Complementarity (C), bias (B) and intensity (I) indexes for Australia's imports from Japan, 1913–2000

	1913	1929	1935	1937	1954	1960	1965	1970	1975	1980	1985	1990	1995	2000
C	113	112	170	159	172	146	110	118	125	129	130	114	113	101
B	64	95	98	73	79	134	172	164	201	189	181	171	132	153
I	72	106	168	116	136	196	190	193	252	244	235	195	150	155

Source: Drysdale (2006).

Drysdale's complementarity, bias and trade intensity indexes essentially represent aggregated measurements of the relationship as a whole. In that sense, his approach provides us with a useful baseline. But to address the question in which we are most interested—the divergence between the fortunes of the very clearly complementary primary sector and tourism and those of elaborately transformed manufacturing and services sectors highlighted in Chapter 1—we need to consider how distance and complementarity interact in relation to specific sectors of the trade and investment relationship.

Areas of high complementarity

As noted above, the areas of the relationship—particularly Japanese imports from Australia—in which complementarity is clearly the driving force comprise largely primary products, in which it can be said both that Australia's revealed comparative advantage is strongest, and that Japan's is weakest. It can also be argued that, at least in relative terms, 'distance' is evolving in a way that generally favours Australia as an ongoing supplier.

Intuitively, geographic distance and ease of transport are significant issues in relation to transport of bulk resources; and Australia, as noted previously, is not

close. However, absolute distance is less important in this context than relative distance. As a source of LNG, Australia has played second fiddle to the more proximate Indonesia and Malaysia for many years; but the dwindling of these countries' easily exploitable reserves and new Japanese contracts with North West Shelf suppliers has Australia poised to become Japan's largest supplier after 2015. And as a source of food and many other raw materials, the calculus is shifting in Australia's favour as China's own internal demand reduces or eliminates the surpluses it once exported.

Australia's developed-country status and the inherent similarity of expectations between Australia and Japan about product quality is another economic distance factor that works in its favour. Both countries have (at times to the despair of their trading partners) stringent quality control and quarantine requirements for food safety, which help to underpin shared understandings about acceptable quality of food exports. The fact that Australia was able to step into the breach created when US exports of beef to Japan ceased as a result of the outbreak of bovine spongiform encephalopathy in the United States in December 2003 underlines the importance of these shared understandings and the high standards of food safety that result from them.

It is not yet clear, however, to what extent the economic distance represented by tariffs and other protective measures in agriculture, as noted above, will be susceptible to early reduction.

Manufactures and services

If geographic distance—relative to rivals and taking account of time zone and seasonal factors—favours Australia's exports of primary products to Japan, the reverse is often true for elaborately transformed manufactures. While there are strong international performers in these fields in Australia, it is certainly also the case both that Australia is less well known overseas for this type of activity, and that Japan is better served for domestic supply, than is the case with primary sector products; and that Australia's relative merits across the board stand out far less from those of international competitors. Australian businesses interviewed for this report repeatedly stressed that lack of name recognition for Australia as a whole in this field in Japan required prospective entrants to the market, in making their case to potential buyers, to be far more persistent than their competitors from countries better known for manufacturing or services products. Complementarity, if it exists, is much more likely to be between individual buyers' products and individual sellers' needs.

Similar considerations apply to exports of services by Japanese service providers: language barriers have contributed to a low propensity of Japanese companies to export services to all countries, not just Australia. And, while a high-income market, Australia is still far smaller than others such as the United States and European Union, deterring service providers and manufacturers from developing products specifically for the Australian market. On the other hand, Japanese manufacturers continue to have advantages, including well-known brand names and a strong association in consumers' minds with high quality and high technology. However, many of the rivals to factories in Japan are now found in other East Asian countries like China, Korea and Thailand, all of which are as close or closer, rather than the more distant Europe or North America.

As will be seen in Chapter 3 in relation to the growth of production networks (encompassing both good and services) in East Asia, this of itself need not mean that trade cannot flourish. Production networking has arisen as a result of ever higher degrees of specialisation according to very fine gradations of comparative advantage, dependent upon relative levels of skills, technology and capital intensity in different countries. Collectively, the sum of large numbers of individual complementarities between buyers and sellers can constitute strong and important bilateral economic relationships between countries. What this suggests, however, is that significant people-to-people contact is needed to build the relationships, trust and mutual knowledge of capability that are required to identify and exploit opportunities. Accordingly, the aspects of distance that affect the degree of human contact in the relationship are likely to be significant in determining its success.

Close examination of statistics that might be expected to provide proxies for measurement of distance in this regard suggests that bilateral distance—principally around the cultural and economic elements of the CAGE framework—appears, if anything, to be growing, rather than diminishing, at least in relative terms.

As noted in Chapter 1, for the past 40 years, Japan has been Australia's largest export market; for more than 35 of those, it was also Australia's largest trading partner. It is the third-largest source of foreign investment in Australia, and the fourth-largest destination for Australian investment overseas. It has also been a major source of tourism to Australia.

Against the background of these figures, the data that describe human contact in the business relationship between the two countries are somewhat disappointing. According to the Australian Bureau of Statistics, Japan is only the sixth-largest source of business visitors to Australia—behind the United States, United Kingdom, New Zealand, China and Singapore. It is the seventh-largest destination for Australian business travel overseas—behind the same five countries plus Hong Kong. Reflecting this, while overall Australian investment in Japan increased significantly between 2002 and 2007, official figures show that the growth has been in portfolio investment (where the requirement for people-to-people contact is significantly less) while direct investment (which requires closer personal engagement) has actually diminished. As we have seen above, other indicators of human contact—migration and student numbers—tend to reinforce the conclusion that, for both countries, other relationships are taking precedence.

Conclusions and implications

The history of commercial relations clearly demonstrates what a powerful force complementarity is. Notwithstanding a wide range of potential and actual barriers, trade and investment between Australia and Japan has flourished, to the advantage of both countries. Many of these barriers have been the result of the distance, in its many forms, between the two countries. As a result, a succession of reports, from Garnaut's *Australia and the Northeast Asian Ascendancy* in 1989 to de Brouwer and Warren's *Strengthening Australia-Japan Economic Relations* in 2001, have highlighted the importance of knowing more about each other, including knowledge of business regulations.

One lesson we can draw from the successes, and from the limited nature of commercial ties that have obvious potential to become broader (such as in the services sector), is that overcoming the impediments thrown up by distance requires some effort. Where the complementarity is great, commercial incentives will lead firms to trade and invest. Where the complementarity is less marked, there may be roles for governments and business to play in working to reduce some of these impediments. The history of success of the Agreement on Commerce and the valuable facilitative role played by issue-specific agreements such as those relating to double taxation shows what well-crafted agreements can do. Might the free trade agreement currently under negotiation between Australia and Japan play a similar role in the future?

Before such a question, and others about the future of this remarkable relationship, can be answered we need to consider in more detail some of the other critical forces shaping the economies of Australia and Japan. It is to these issues we now turn.

Key points

- Change in Japan's economy in coming years is likely to be significant.
 - Japan is growing older rapidly and demographic pressures will constrain its future growth, as well as contributing to the substantial further structural evolution in its economy, including greater emphasis on services and high-end manufacturing.
 - Improving productivity and increasing the income from international investment—the latter already a striking feature of Japan's economy—are options for ameliorating the demographic constraints.
- Australia will also face challenges, including improving productivity, skill levels and infrastructure, and, if demand for resources arising from the rapid growth of China, India and others results in a 'super cycle' re-emerging following the global financial crisis, dealing with the associated rise in terms of trade and exchange rate, as well as increasing its competitiveness in areas such as services trade and high-end manufacturing.
- Direct bilateral trade will continue to be replaced to some extent by indirect trade as a result of the relocation by Japanese firms of (part of) their production, especially to China and ASEAN countries. This relocation has been a driving force in the creation of regional production networks, which have grown in importance, especially in industries such as ICT equipment. Australian firms are not yet heavily represented in such networks.
- Policy and commercial responses to the challenges of climate change are likely to affect trade, investment and other links, especially if Japan's demand for energy or energy mix changes.
 - The relationship itself is a highly energy-intensive one.
 - Japan's high existing levels of energy efficiency present commercial opportunities but may also make further improvements more difficult.
 - Australia's economy is more energy-intensive and carbon-intensive than Japan's, with consequent challenges.

Chapter 3

■ Shifting context: change in the Japanese and Australian economies



Crucial to the way that the shaping forces of complementarity and distance examined in Chapter 2 evolve will be, of course, developments *within* the economies and societies of both Australia and Japan. These internal developments will also influence how firms and governments in both countries respond to and participate in the continuing change that is afoot in the regional and global economies. This chapter looks ahead at the key factors that are likely to drive those internal developments in the medium to long term, and speculates about their possible impact on the shape of the bilateral commercial relationship.

Predictions are almost always wrong. If asked 20 years ago where the two economies would stand today, many commentators would have predicted a future very different from that which has actually transpired. Japan at that point seemed in the heyday of its economic vibrancy, making large and highly visible investments in international assets, and touted by many as on a course to wrest economic ascendancy from the United States sometime in the first half of the 21st century. Since then it has been on a roller-coaster ride: from a 'lost decade' of economic stagnation in the 1990s; to its longest stretch of uninterrupted growth since World War II between 2002 and 2008 (OECD 2008); before, in late 2008, falling back into recession following the onset of the global financial crisis.

Twenty years ago, Australia, on the other hand, was still digesting the implications of its then Treasurer's 1986 warning that continuing on its existing course could lead it to 'banana republic' status, but it has since become consistently one of the fastest-growing economies in the OECD during what has also been its longest period of uninterrupted growth since World War II. More recently, expectations have again been turned on their head as the global financial crisis has seen a massive depreciation of the Australian dollar, a large appreciation of the yen and dramatic declines in commodity prices.

We do not, therefore, presume to know where the events of the next 20 years or more will leave either the Australian or the Japanese economy. Nor does the Economic Analytical Unit have specific insights of its own that would radically challenge the views of others—indeed, it must be noted at the outset that much of the commentary on the Japanese economy contained below draws on ideas from policy papers of the Japanese Government itself, which is acutely aware of the challenges the country faces. Rather, our aim is to bring together some of the key issues identified by authoritative commentators as important to the medium-to long-term future of each economy and use these as a prism through which to view the possible development of Australia–Japan commercial relations into the future. While our focus is the impact of these trends in the years to come, we start by examining the recent past to shed light on how these trends are developing and provide a basis for analysing how they will affect the two countries in the future.

The Japanese economy

Public commentary on the performance of the Japanese economy in recent times, and prognostications for its short-term future, tend inevitably to the gloomy. Growth in the 2002–08 period, though relatively long-lived, was anaemic and uncertain, and reform prospects are widely seen as remote in a fraught political situation where there is apparently no political party or political figure in a strong position to promote sustained reform. Not, in short, an apparently enticing prospect for business at the macro level.

But is all as it seems? It is not the intention of this report to gloss over the very real difficulties of economic and political management that Japanese governments are likely to face for some time to come. We do, however, believe that there is value in going beyond the headlines and challenging the idea that relatively low levels of aggregate growth and a problematic environment for reform mean that new opportunities for mutually beneficial business partnerships are not occurring. Why?

The first reason is Japan's size and wealth. These are important regardless of growth. Japan's economy remains the second-largest single national economy in the world (after the United States) in market exchange rate terms. Its GDP is several times that of Australia—meaning that even relatively small shifts are of disproportionate potential significance to Australian companies that are used to dealing with a smaller market. For example, though the growth *rate* of the Japanese economy as a whole has been relatively low since the 1990s, the *magnitude* of growth in the fastest growing sector—the services sector—alone since the beginning of the 1990s is in fact larger than the total size of the Australian economy (Figures 3.1 and 3.2).

It is also important to remember that, although Japan's per capita GDP has declined relative to that of the OECD as a whole since the beginning of its 'lost decade' of the 1990s, it remains the richest major market in Asia by some margin. While the slowing of the pace of its GDP growth is particularly stark by comparison with other regional economies—and despite its growth being forecast to remain slower well into the future (Goldman Sachs 2007)—Japan's purchasing power remains far higher and will be for the foreseeable future (Figure 3.3).

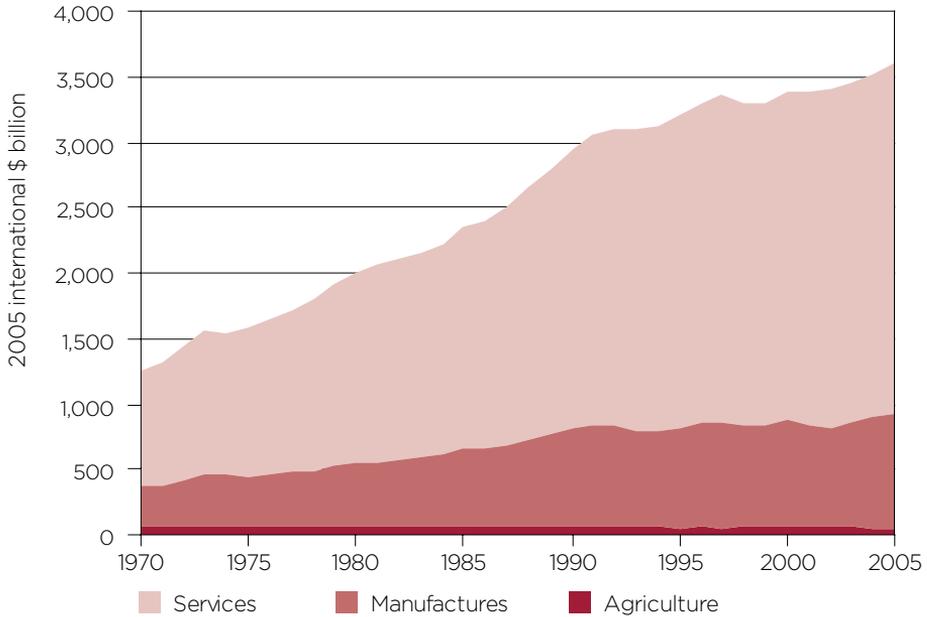
Noticeable from this projection—and remembering that it is just one possible scenario, even if it approximates what most analysts think likely—is the fact that while countries such as China and India are expected to grow at a greater *rate* from their low bases than Japan is from its high base, the actual *quantum* of increase projected per Japanese person between 2006 and 2030—about US\$15,900—is, in fact, slightly greater than the increase per Chinese person (about US\$15,500). Moreover, as we shall see, savings rates in Japan are already falling, and can be expected to fall further as the society ages; meaning that, overall, while the increase *relative to current expenditure* for Japan may not be as great as it is for China, the actual increase in potential expenditure per person is nevertheless likely to be substantial.

The second reason is expectations of rates of growth and changes in the structure of Japan's economy. Japan's success is that it has been one of the relatively few countries in the post-war era that has been able to move itself out of the low-income bracket, through the middle-income category, and into the ranks of high-income economies. While the high levels of economic growth Japan enjoyed in the post-war period have been replicated by many others at times, few have sustained the growth for long enough to achieve what Japan has (Gill and Kharas 2007).

Figure 3.1

Even when growing slowly, Japan's size makes the numbers large . . .

Japan's real GDP by sector, 1970–2005



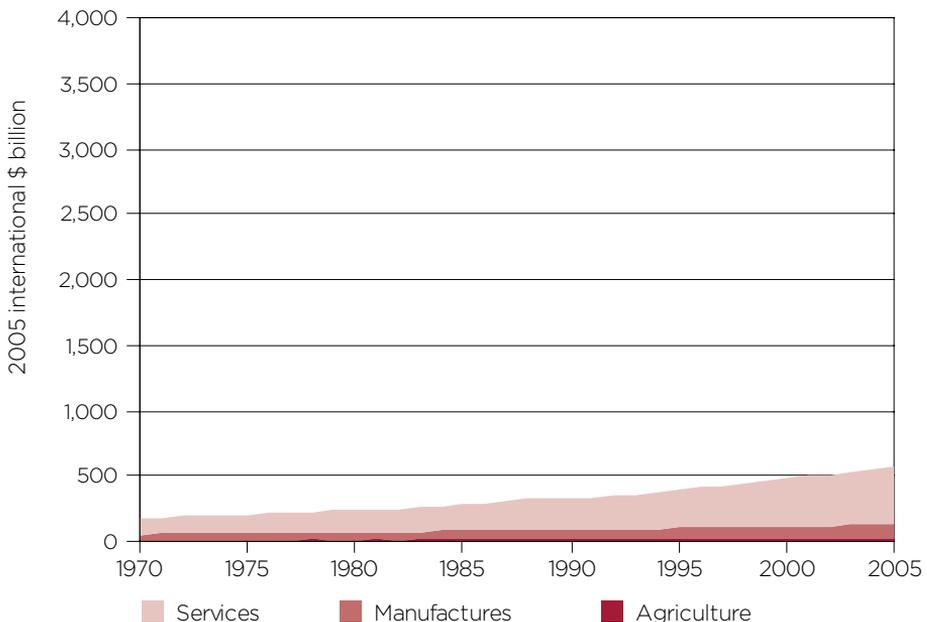
Note: An international dollar has the same purchasing power over GDP as a US dollar has in the United States at a set point in time, in this case 2005.

Source: OECD.Stat database.

Figure 3.2

. . . larger than for Australia, even when growing more rapidly

Australia's real GDP by sector, 1970–2005

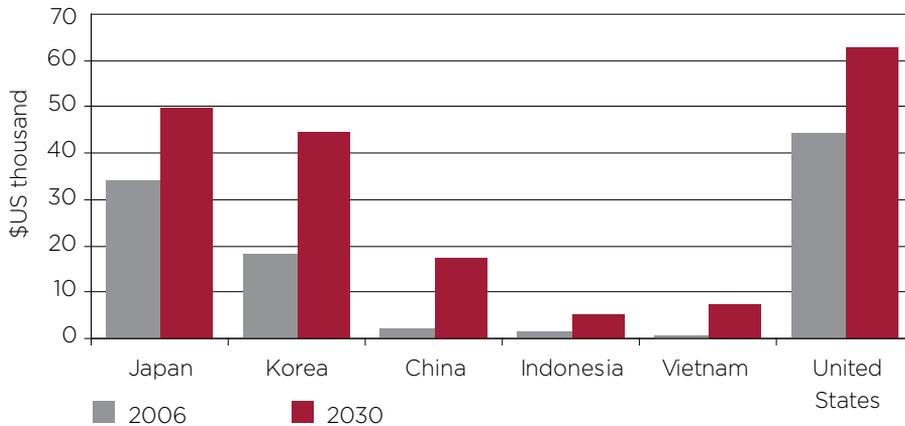


Note: An international dollar has the same purchasing power over GDP as a US dollar has in the United States at a set point in time, in this case 2005.

Source: OECD.Stat database.

Figure 3.3**Even as others catch up Japan grows a lot in absolute terms**

Per capita GDP in selected countries, 2006 (actual) and 2030 (projected)



Source: Goldman Sachs (2007).

Once the Japanese economy had essentially caught up with the productivity levels of other developed economies, it was inevitable that growth would slow down. In and of itself this would imply a smaller manufacturing sector as the absence of rapidly expanding industries reduced demand for capital equipment. This, and the shifts in the global economy explored later in this chapter, means that deep structural changes in the Japanese economy have been occurring since the early 1990s. This period of structural change has in itself tended to slow growth for the period.

Expectations of future growth based on memories of the post-war period therefore need to be revised, meaning that the comparators often used by commentators—China and the other dynamic Asian developing economies—are no longer relevant. Japan's growth rates between 2002 and 2008, which averaged around 2 per cent, seem insipid in the context of its post-war boom, but are not markedly out of kilter with those of the other rich developed economies, particularly when the demographic factors outlined below are taken into account. While Japan's economy has clearly made this transition, it is arguable that many observers' expectations have not.

Looking to the future: the demographic challenge . . .

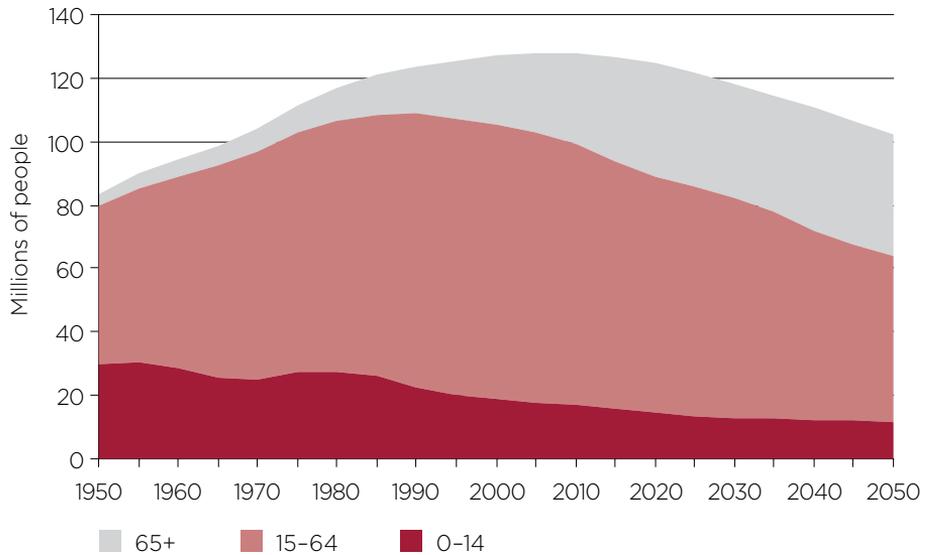
The single predominant structural challenge that Japan's economy will face in the future is to deal with the well-documented and profound demographic shifts now under way. According to UN Population Division projections, Japan's population has now peaked, and is likely to decline progressively over the years between 2008 and 2050, falling from a peak of around 128 million to approximately 112 million in 2050 (Figure 3.4).⁹

⁹ A range of scenarios for Japan's future population structure exist, with different assumptions for fertility, migration and death rates giving different outcomes. The data in the figure are derived from the UN's medium scenario. All basically agree, however, that Japan's population is starting to shrink; that its working age population started to shrink around 1995; and that by 2050, the workforce and dependent youth will represent a far smaller proportion of the population.

Figure 3.4

Japan grows older

Japan's population by age group, 1950–2050 (UN medium scenario)



Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, *World Population Prospects: The 2006 Revision and World Urbanization Prospects: The 2005 Revision*, <<http://esa.un.org/unpp>>.

The economic consequences will be exacerbated by the changing structure of the population that this implies. As the population gets older, birth rates, which fell below the rate of replacement in 1975, will continue to decline. Consequently, as Figure 3.4 shows, the proportion of the population that is potentially economically productive (notionally the 15–64 age group, though Japan's relatively high school retention rates mean this probably overstates the workforce to some extent) will decline significantly. Between 1990 and 2050, Japan's working age population is forecast to fall by around 20 percentage points, while the population over 65 will increase by 24 percentage points to 36 per cent of the population (Figure 3.4). Broadly speaking, this means that there will be a shrinking number of working people, and they will be required to support a constant number of their non-working compatriots—by 2050, the ratio of people nominally of working age (15–64) to those not of working age (0–14 or over 65) will be approximately 1:1 (it is currently approximately 2:1)—meaning, in other words, one dependant for each potentially productive worker.

The continued rapid ageing of the Japanese population will thus place a heavy burden on society—because of the impacts on fiscal policy, consumer demand, financial markets, and trade and labour markets—and therefore on future economic performance (Farrell and Greenberg 2005). Funding the pensions of Japan's retirees will be a major challenge, especially given the poor performance of the public pension fund. Returns have been on average half or less of comparable funds in other developed countries, which some ascribe to conservatism—much private saving is also invested in assets that produce low returns—and to the unwillingness to replace the bureaucrats in charge with professional funds managers (The Economist 2008). Demographic pressures are also expected to

have an impact on health care and the share of GDP spent on that sector. If the current health-care policies continue, the gap between the collections of the insurance system and its expenditure will widen. Total health-care expenses under the National Health Insurance system were 6.6 per cent of GDP in 2005 but could grow to 13.5 per cent of GDP by 2035 (Kadonaga et al. 2008).

Modelling results of the contribution of demographic change to the Japanese economy from 2005 to 2100 show that Japan's demographic change could start detracting from GDP growth in around 2010 and growth would be up to 1.2 percentage points lower by 2040. Demographic change in the rest of the world, predominantly in East Asia, will ameliorate this effect, so that in 2040 growth would be just under one percentage point lower than without demographic change; this is due to increased international demand for Japanese goods and increased income earned on Japanese overseas investments (Batini et al. 2005).

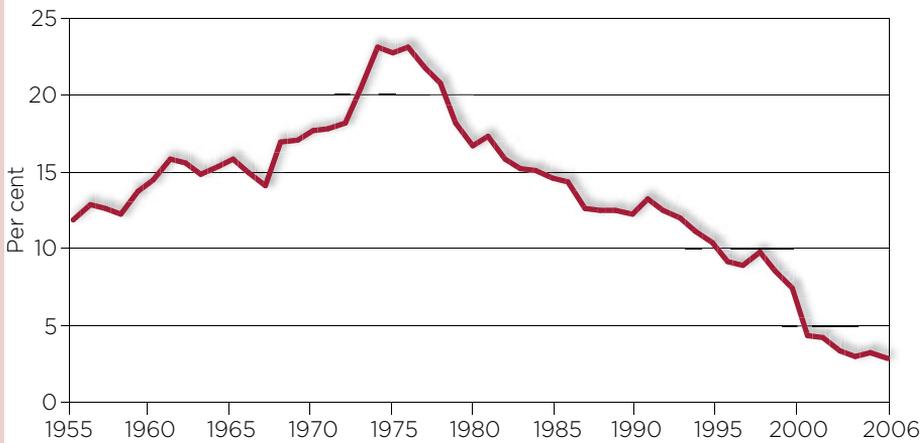
The ageing of the Japanese population has particularly serious implications for its agricultural sector. In 2007, 59 per cent of Japan's farmers were 65 years or older (MAFF 2008); in 2004, only 8 per cent were under 30 (Roberts et al. 2006); and, between 1991 and 2004, the number of people aged 15 years or over in commercial farm households declined by 26 per cent (Roberts et al. 2006). Current laws inhibit consolidation of small landholdings under the ownership of corporate farmers, though in 2007 the *Keidanren* (Japan Business Federation) proposed amending them. However, the combination of ageing and decline in the agricultural workforce is already leading to an increase in the contracting out of farming (Roberts et al. 2006).

Japan's dramatic population ageing will also pose challenges for macroeconomic management in a range of areas. Fiscal policy, already restricted by the highest levels of public debt in the OECD, will need to cope with higher social security and health costs; the contraction of the labour force will directly affect growth prospects; and financial markets will feel the impact of changes to financial wealth and savings (Japan's household savings rate is already showing signs of decline as older workers leave the workforce and start to consume their retirement nest eggs). Ageing also adds to the urgency for further reform of social security and the labour market, which will help to increase the efficiency of the Japanese economy.

Box 3.1 The end of Japan's high savings rate?

A key element in Japan's 'miracle' was the high rate of household savings. This provided an important source of capital for Japanese firms, often available at modest interest rates given that much of the household savings were in low-interest accounts, especially in the Post Office savings system. Already a combination of factors—including changing demographics (older people tend to spend rather than save) and a higher propensity to consume among younger generations—have led to a significant drop in the savings rate (Figure 3.5).

Figure 3.5
The rise and fall of Japan's household savings rate
Household savings rate for Japan, 1955–2006



Source: *The Oriental Economist* (April 2008), drawing on Japan's Cabinet Office and Bank of Japan data.

... and the consequent productivity imperative

GDP is essentially a function of two main factors: person-hours worked and productivity. In the face of a declining workforce, there are limited options for maintaining GDP growth. Where the workforce is not only declining in absolute terms but also as a proportion of the population, as appears likely to be the case in Japan, even maintaining growth in per capita GDP becomes increasingly challenging.

Logically, what are the available options?

The first is to take steps to reverse the decline in the workforce, either by importing labour (already evident in some sectors in Japan, where regulations have recently been amended to allow foreign workers greater access to Japan); increasing the birthrate (necessarily a longer-term solution); or increasing the participation rate—in the case of Japan an imperative that has focused policy-makers on reversing the traditionally low participation rate of women in the workforce. The second is to increase the number of hours worked by those who are in the workforce—an approach that clearly has limitations. The third is increasing productivity of the workforce, and the fourth is to supplement GDP through external income generated by external direct investment—effectively buying in foreign labour without an immigration program. (This is, of course, the effect of the approach

adopted by many Japanese firms since the late 1980s of shifting production offshore—primarily of labour-intensive goods—effectively increasing the workforce available to them.)

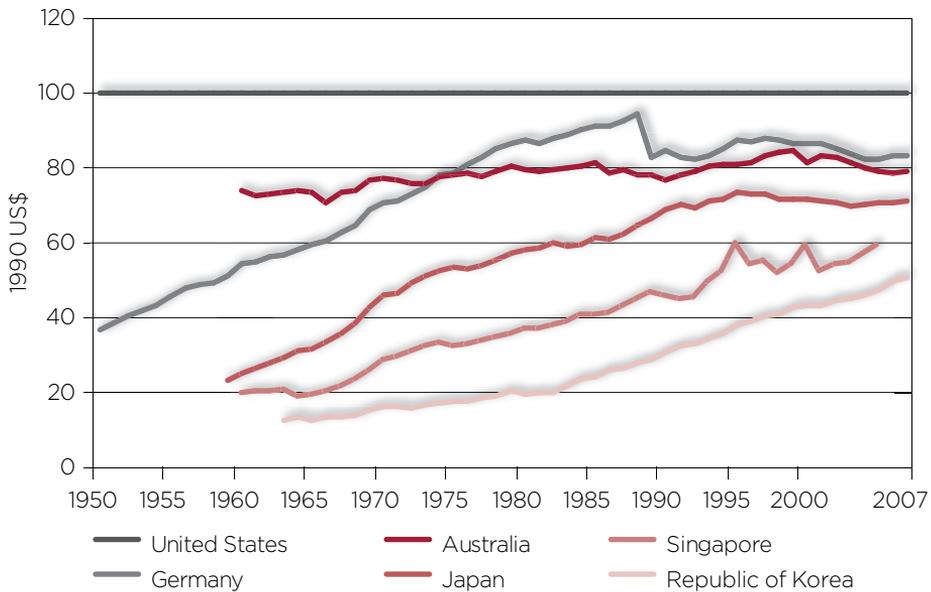
It is as yet unclear which, or what combination, of these steps Japan will implement to address the challenges raised by its demographic situation. Arguably, it is likely to be a response involving multiple solutions: ‘silver buckshot’ (Prins and Rayner 2007) rather than a ‘silver bullet’.

Productivity

Productivity assumes particular importance if we take a look at the drivers of Japan’s remarkable growth in the decades leading up to the 1990s. Productivity growth was high, and Japan rapidly closed the gap of output per hour worked with the United States (Figure 3.6). This levelled off, and even temporarily dropped, however, when GDP per capita reached approximately 80 per cent of that of the United States (Figure 3.7)—arguably the point at which obvious productivity gains through technological ‘catch-up’ became harder to achieve.

Figure 3.6
Productivity growth slows . . .

Output per hour relative to the United States, 1950–2007, selected countries

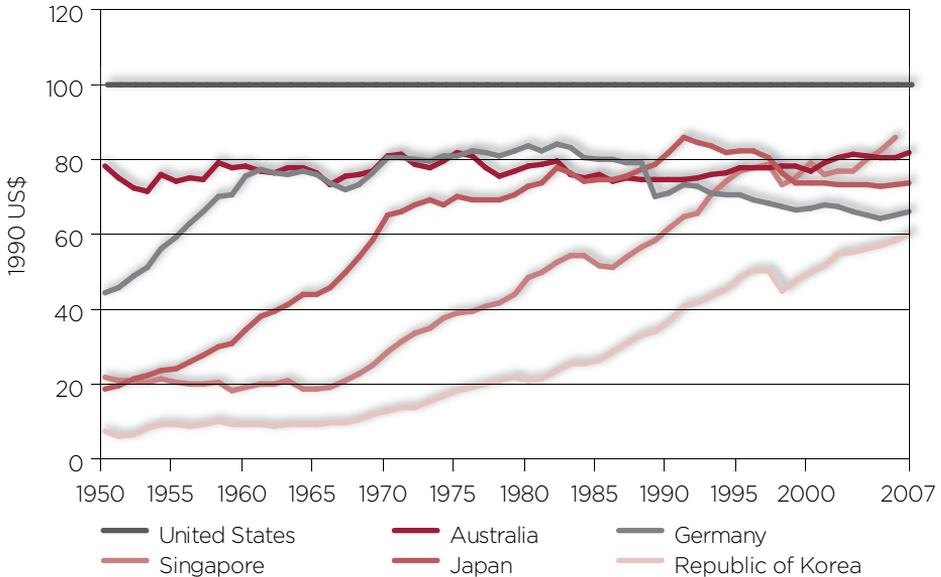


Note: US dollars converted at Geary Khamis purchasing power parities.
Source: Conference Board and Groningen Growth and Development Centre, ‘Total Economy Database’, January 2008, <www.conference-board.org/economics>.

Figure 3.7

... and so does growth in relative GDP per capita

GDP per capita as a proportion of US level, 1950–2007, selected countries



Note: US dollars converted at Geary Khamis purchasing power parities.
Source: Conference Board and Groningen Growth and Development Centre, 'Total Economy Database', January 2008, <www.conference-board.org/economics>.

Looking at the picture to date, it is clear that Japan in the 1990s faced what economists in their less technical moments might describe as a structural double whammy. Just as the workforce was starting to decline, both as a proportion of population and in absolute terms, productivity also plateaued. Unsurprisingly, rapid growth has been difficult to achieve since, though there have been some signs of improvement in productivity in recent years.

How can increased productivity be achieved? At the economy-wide level, there are essentially two factors that need to be addressed. The first relates to efficient allocation of resources—that is, ensuring that resources flow naturally to relatively highly productive sectors of the economy; the second is to improve the productivity of workers within the sectors in which they work.

Allocative efficiency is a critical emerging issue for Japan, with both sectoral and geographic factors in play. At the sectoral level, a striking duality exists in the Japanese economy between highly productive, highly competitive manufacturers that are subject to stringent international competition, and almost everybody else who is not. Essentially, Japan's fortune has been built on the former and distributed to the latter—in much the same way as was the case in Australia over the many years that it 'rode on the sheep's back', an era when the proceeds of competitive rural export industries were used as a means of subsidising a protected manufacturing sector. In Australia's case, the long-term secular decline in international commodity prices, resulting in falling terms of trade, made continuation of this policy untenable: in general, the proceeds of the efficient were no longer adequate to pay for the protection of the uncompetitive.

The drag caused on Japan's higher performing export-oriented sector became particularly apparent in the lost decade, when the performance of the domestic laggards swamped the excellence of the high-profile exporters, resulting in a widening gap in real GDP per capita between Japan and other industrialised economies (Kondo et al. 2000), a situation that improved somewhat after 2002 (Figure 3.7). The world-beating sectors of automobiles, steel, machine tools and consumer electronics have thrived; however, the other 90 per cent of economic activity takes place in companies that do not export, mainly domestic manufacturing and services firms. The 1999 labour productivity levels of the non-exporting firms were only 63 per cent of US levels (Kondo et al. 2000), and the productivity of capital in Japan was even lower (61 per cent of US levels). Agriculture, too, while a relatively small and declining proportion of the economy, demonstrates very low productivity, and consequently accounts for a far larger proportion of the workforce than of GDP. Average wages in the agriculture sector in 2004 were approximately half average wages overall (Roberts et al. 2006).

This issue is particularly acute in the services sector, because of the fact that, in common with the trend in other developed economies, the sector represents a large and increasing proportion of both employment (expanding by more than ten percentage points from 65 per cent in 1985 to 77 per cent in 2005) and GDP (growing from less than 70 per cent in 1985 to almost 80 per cent 20 years later).

Japan's services sector productivity has been disappointing. The OECD's 2008 survey of the Japanese economy found that the sector was largely responsible for low aggregate productivity within the economy, with a decelerating rate of improvement in labour productivity per hour worked over the past 30 years, significant productivity slowdowns in both market and non-market services sectors, and a large gap between services and manufacturing productivity gains. 'In sum', the OECD concluded, 'the slowdown in the service sector has brought down labour productivity growth in the entire economy from more than 4 per cent in the 1976-89 period to less than 2 per cent from 1999-2004' (OECD 2008: 126). Moreover, the OECD found that there had been very little shifting of labour from less to more productive service industries: indeed, in market services and ICT services, labour had been reallocated from *more* to *less* productive industries in recent years, leading to the conclusion that further structural change was required to promote the development of more dynamic services industries (OECD 2008).

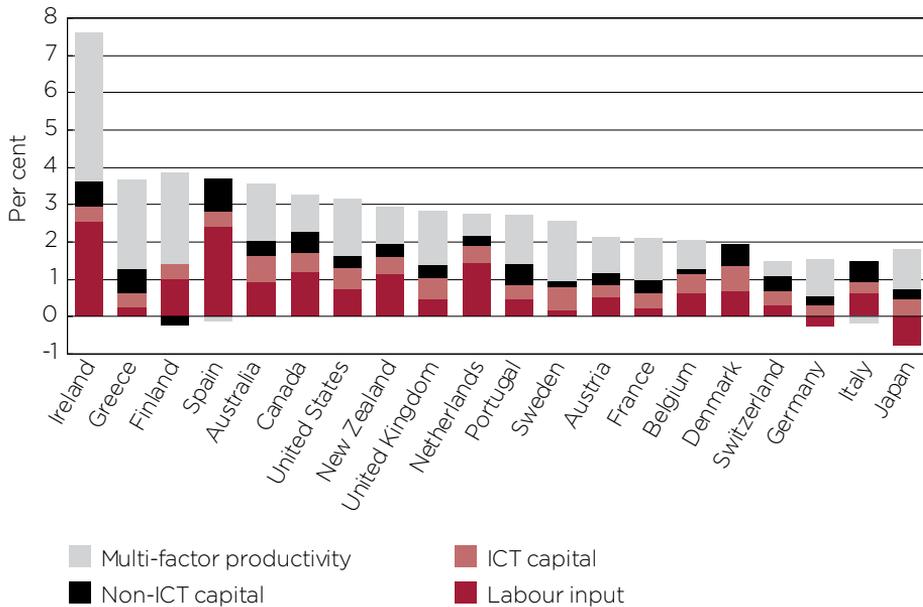
Another factor affecting allocation of resources within the economy is the geographic distribution of the population. Relative to many OECD countries, Japan retains a large share of its population in rural areas—home to industries that are generally among its least productive—and this is likely to continue despite the fact that a gradual shift to the cities (where more productive employment is generally available) is taking place.

If Japan is to achieve the ambitious increases in productivity needed to prevent declines in per capita income, these populations will have to be much more effectively deployed. The existing drag from declining labour availability is shown in Figure 3.8.

Figure 3.8

Declining labour availability slows GDP growth in Japan

Contributions to GDP growth, OECD countries, 1995–2005, annual average growth in percentage points



Source: OECD (2007: 1-3).

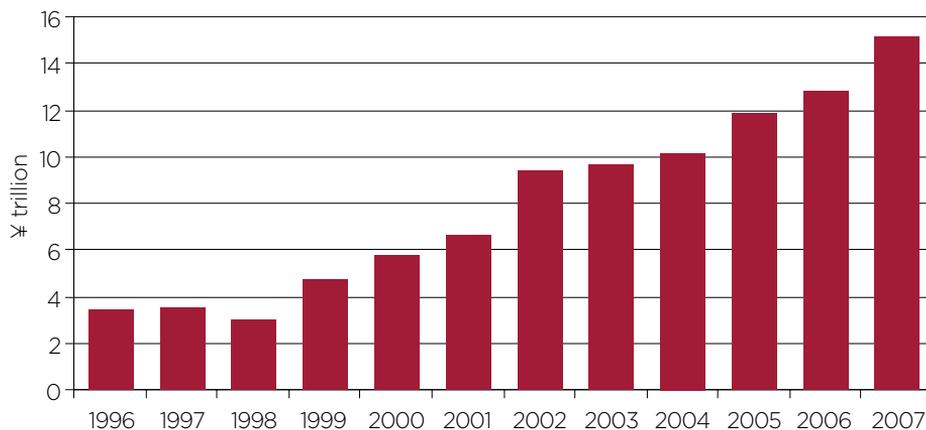
By no means coincidentally, the poor productivity performance of Japan’s services sector coincides with relatively low levels of participation in international services trade—Japan ranks very low among OECD nations in terms of the proportion of services trade to the size of its overall economy (OECD 2008). Another factor affecting productivity is that Japan’s policy approach has had the effect of discouraging inward foreign direct investment, which is the subject of continuing debate with some of its commercial partners. Low levels of inward foreign direct investment are a good indicator of likely levels of services imports, as much trade in services takes place through a commercial presence in the country where the services are delivered (what the World Trade Organization describes as ‘mode three’). According to the Bank of Japan, total inward foreign direct investment stocks in Japan as at 31 December 2007 were only ¥15.1 trillion (of the order of A\$150 billion)—less than half the direct investment stock held by foreigners in Australia, an economy less than one-quarter the size. Additionally, foreign direct investment into Japan as a proportion of total foreign investment in Japan was extremely low, at around 4 per cent, though this in itself represented a significant increase by comparison with previous years (Bank of Japan 2008); the comparable figure for Australia (which is near the other end of the spectrum) was around 22 per cent (ABS 2008b). It also seems clear that onerous regulatory requirements are significant in inhibiting effective allocation of resources within the services sector, hence reducing the potential for productivity gains (OECD 2008).

As recent Japanese Government policy papers have emphasised, increased competition through domestic deregulation and international trade (especially importing services) is critical to improving the productivity performance of less efficient sectors of the economy. It results in both static allocative efficiencies (as resources move out of low-productivity industries that cannot survive in the face of international competition into more productive industries that can) and in dynamic efficiency gains—as those industries that can compete lift their game to meet the challenge posed by both domestic and international competitors. There are already some signs that official encouragement for the concept of greater inward direct investment could be having an effect (Figure 3.9), but the stock of foreign direct investment remains low both as a share of GDP and as a share of total inward foreign investment.

Figure 3.9

Inward foreign direct investment grows, but from a low base

Stock of Japanese inward foreign direct investment, 1996–2007 (end of calendar year)



Source: Bank of Japan database.

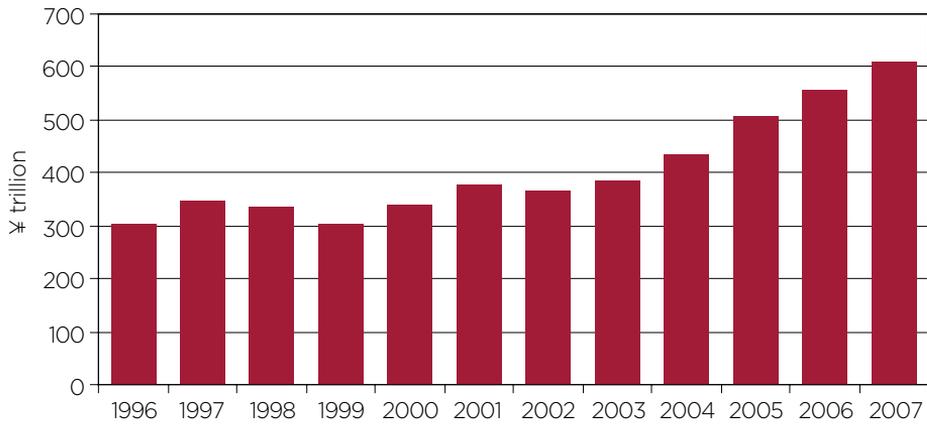
Integrating internationally

The other avenue open to Japan to increase its national per capita income is to make money overseas—either by achieving a higher return on its savings than is available domestically, through portfolio investment, or by effectively expanding its labour force without running a major immigration program, through foreign direct investment. There are clear signs that activity in both these areas is increasing, both at the aggregate level (Figures 3.10 and 3.11) and in the overseas acquisitions by a range of Japanese firms (in industries as diverse as pharmaceuticals, precision equipment and beverages)—to the extent that net earnings from overseas investments now exceed the trade surplus (Figure 3.12). Moreover, media reporting of recent developments suggests that the global financial crisis will result in a quantum increase in the current year, especially in the financial sector (and, indeed, appears also to have eliminated, at least for the time being, Japan's trade surplus).

Figure 3.10

Japan's investment overseas grows rapidly . . .

Stock of total Japanese outward investment (direct, portfolio and other), 1996-2007 (end of calendar year)

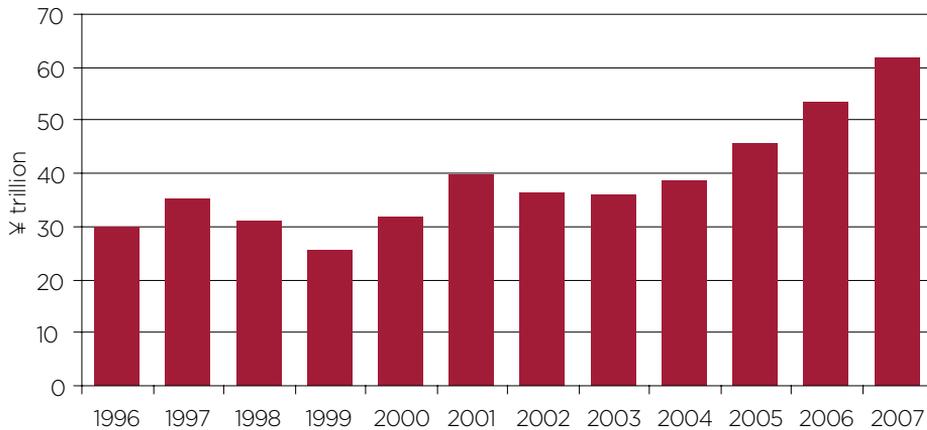


Source: Bank of Japan database.

Figure 3.11

. . . as does Japan's direct investment overseas

Stock of total Japanese outward direct investment, 1996-2007 (end of calendar year)

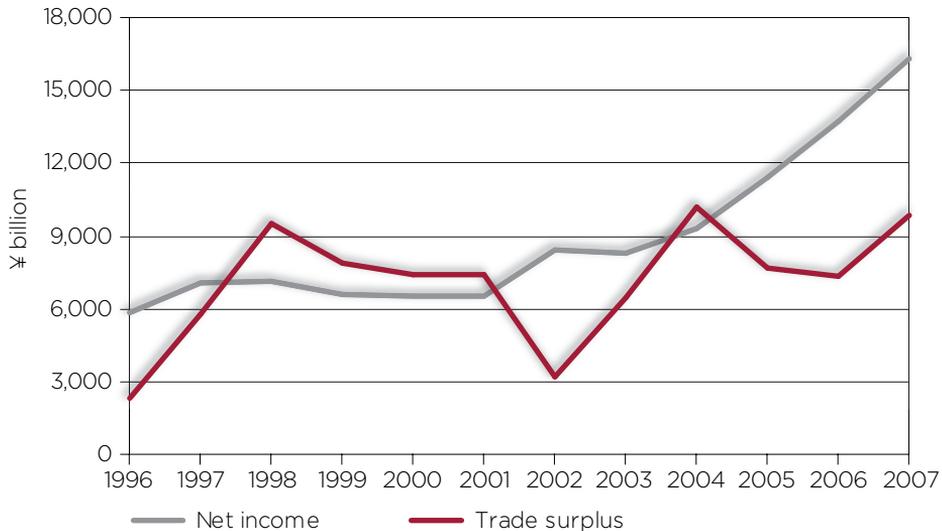


Source: Bank of Japan database.

Figure 3.12

Japan's net income from investment overseas exceeds its trade surplus

Japan's net income from investment overseas and trade surplus, 1996–2007



Source: Bank of Japan database.

‘Factory Asia’: the growth of East Asia and intra-regional trade

Japan’s and Australia’s economies—and the commercial relationship between the two countries—are also being affected by international integration, much of it linked to the growth of East Asia (in particular, China), and the changing nature of investment, production and trade in the region associated with the fragmentation of production and the growth of regional production networks. The response of companies—in Japan especially, but also to some extent in Australia—has altered the structure of the two countries’ domestic economies as well as the structure of trade with and within East Asia, and contributed to the growth of the region.

The growth of the region

No region of the world has grown more, or more rapidly, than East Asia during recent decades. In the wake of Japan’s expansion in the 1950s and 1960s and its subsequent economic success, first the Newly Industrialised Economies (Hong Kong, the Republic of Korea, Singapore and Taiwan) also grew rapidly and then the ASEAN4 (Indonesia, Malaysia, the Philippines and Thailand) expanded. These economies were joined in the 1980s and, especially, the 1990s by China and, more recently, by Vietnam.

The development of these economies has had a significant effect on both Australia and Japan. As a result of the policies adopted by their governments and the responses of firms, these East Asian economies’ share of trade and investment increased, and, consequently, so did their importance in the global economy.¹⁰

¹⁰ The success of East Asian economies has been widely analysed. For a recent review, see Gill and Kharas (2007).

Reflecting its size and its sustained rapid economic growth from the late 1980s, in the mid-2000s around 10 per cent per annum, it is China that has had the greatest impact. This can be seen in China's rising share of both Australia's and Japan's imports and exports (Table 3.1) and in its ranking among trading partners: in 2007 China ranked first among Australia's and Japan's partners in two-way trade (merchandise trade only for Japan, goods and services for Australia), in both cases for the first time.

Table 3.1

China grows in importance for both Australia and Japan

Australia's and Japan's imports from and exports to China, percentage share of total merchandise imports and exports, 1987–2007

		1987*	1992	1997	2002	2007
Australia	Imports	1.9	4.2	5.7	10.1	15.4
	Exports	4.0	3.2	4.7	7.0	14.1
Japan	Imports	5.3	7.3	12.4	18.3	20.6
	Exports	3.6	3.5	5.2	9.6	15.3

* 1988 for Japan.

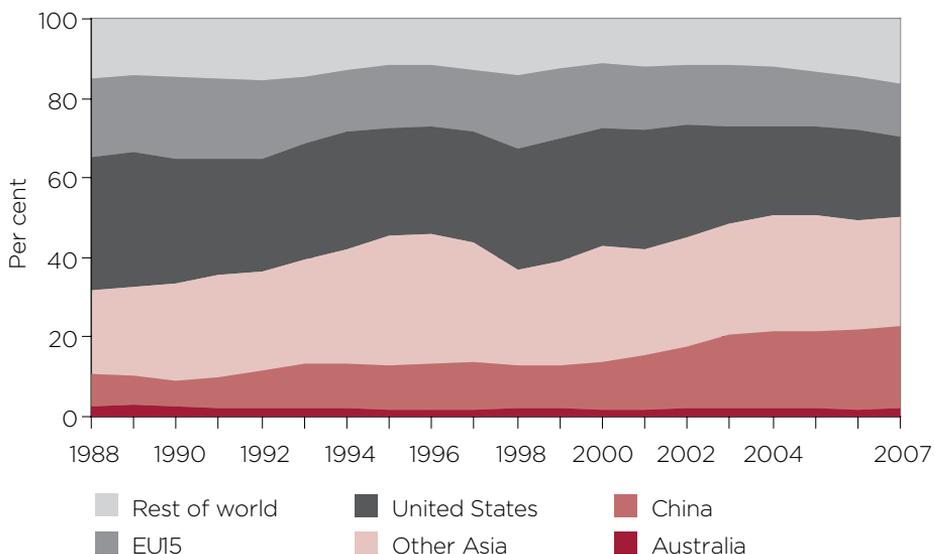
Sources: DFAT STARS database; Ministry of Finance, Japan, database.

Japan's closer trade and investment links with East Asia and, from a much lower base, South Asia—together, the source of more than 40 per cent of Japan's imports and the destination of nearly 50 per cent of its exports in 2007 (Figures 3.13, 3.14 and 3.15)—have been key factors in sustaining export growth (notwithstanding the relative decline in trade with the United States and the European Union). This was one of the major contributors to the expansion of the Japanese economy between 2002 and 2008; the difference from earlier periods of growth was that previously domestic demand was also growing, whereas this time domestic demand was weak.

Figure 3.13

Japan becomes more closely integrated with Asia, as an exporter . . .

Japan's exports to the world, country and regional shares, 1988–2007

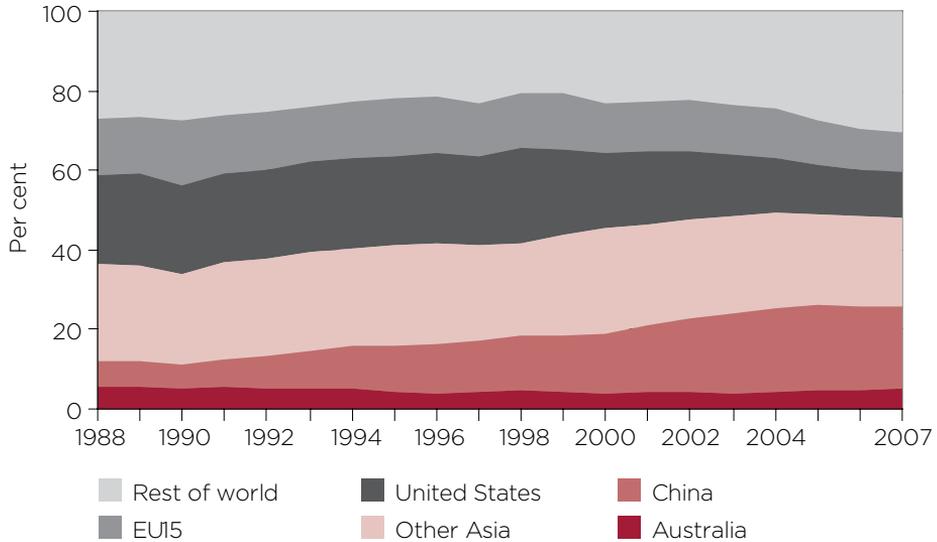


Note: China includes Hong Kong and Macau.

Source: Ministry of Finance, Japan, database.

Figure 3.14
 ... and as an importer ...

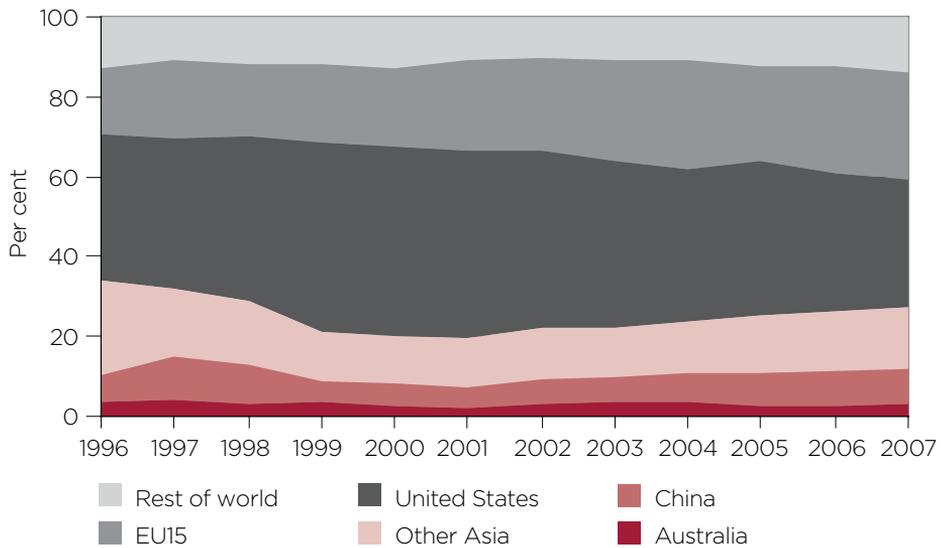
Japan's imports from the world, country and regional shares, 1988-2007



Note: China includes Hong Kong and Macau.
 Source: Ministry of Finance, Japan, database.

Figure 3.15
 ... but more gradually as a foreign direct investor ...

Japan's global foreign direct investment stock, country and regional shares, 1996-2007



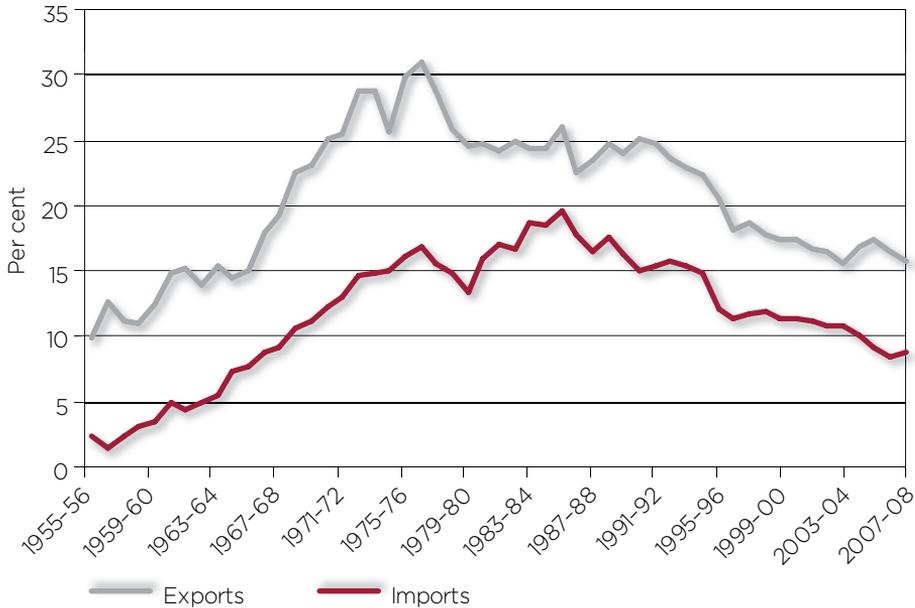
Note: China includes Hong Kong and Macau.
 Source: Bank of Japan database.

One consequence of the growing importance of trade with China for Australia and Japan is that Japan's share of Australia's trade has fallen from the peaks of the 1970s (Figure 3.16).

Figure 3.16

China's growth reduces Japan's direct share of Australia's trade

Japan's share of Australia's imports and exports of goods and services, 1955-56 to 2007-08



Note: The data for 1956-57 to 1965-66 are for trade in goods only as services data only became available on a country basis from 1966-67.
Sources: DFAT STARS database; ABS (2008c, 2008d).

One of the main reasons for the growth of imports from China is that Japanese firms (as well as firms from other countries) established factories there and export finished products—primarily consumer goods—to Australia, Japan and other markets. This has been especially true of consumer electronics, where Japanese brands remain significant, and machinery. Some commentators have described this phenomenon, which encompasses the ASEAN countries as well, as ‘factory Asia’ (Baldwin 2006a).

As noted in Chapter 1, one important consequence is that the nature of the Australia-Japan commercial relationship has changed: instead of Australian consumer purchases of the products of Japanese firms being reflected in the bilateral trade flows, they now show up as imports from China (and some other countries in the region). There have also been impacts on Australia's exports to Japan and China (and other countries in the region): sales of wool and some other raw materials moved from Japan to the new centres of production following the relocation of production or changes in the type of production undertaken in Japan.

Regional production networks and intra-regional trade

The investments by Japanese firms in China and other regional countries have contributed to and become an important part of production networks that are fundamentally changing the nature of the regional economy, with impacts on Australian firms and on direct commercial links between Australia and Japan. This can be seen in the dramatic increases in the number of affiliates¹¹ established by Japanese firms in East Asia and India (Table 3.2) and in the number of plants established in China and some of the ASEAN countries by Japanese automotive and electrical machinery firms (Figure 3.17). While total Japanese direct investment in East Asia is no greater than Japanese direct investment in Europe or North America (Figure 3.15), there are more Japanese firms with affiliates in East Asia than in North America or Europe, and a much larger percentage of these affiliates are in manufacturing, especially machinery (Ando and Kimura 2003).

Table 3.2

Japanese firms increase their affiliates in China and ASEAN countries

Number of affiliates of Japanese firms in Asian countries, 1990–2004

	1990	1994	2000	2004
China	315	1,061	2,432	4,041
Thailand	766	983	1,342	1,512
Hong Kong	793	1,022	1,112	1,121
Singapore	743	961	1,129	1,067
Taiwan	727	812	891	909
Malaysia	509	709	881	805
Indonesia	292	439	676	698
Korea	399	404	496	640
Philippines	171	234	426	453
Vietnam	1	21	174	220
India	71	81	168	193

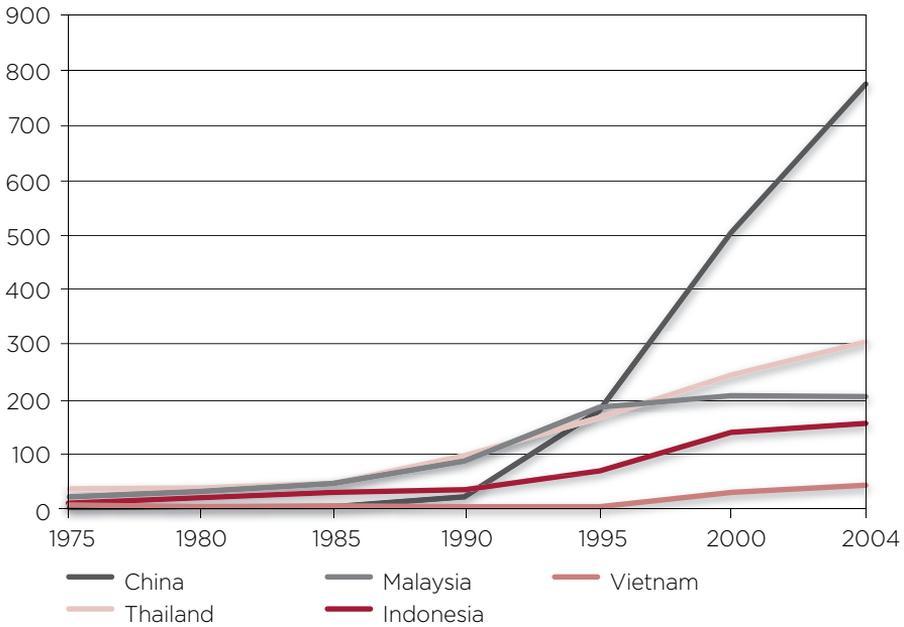
Source: Fujita and Hamaguchi (2006).

¹¹ Affiliates are defined in the Japanese context to include (1) wholly owned subsidiaries, joint ventures, and firms in which strategic (10+ per cent) shareholdings are held, and (2) firms that are owned 50 per cent or more by firms in category (1).

Figure 3.17

Japanese automotive and electrical machinery firms relocate to China and ASEAN

Number of plants (cumulative) established in East Asia by Japanese automotive and electrical machinery firms, 1975–2004



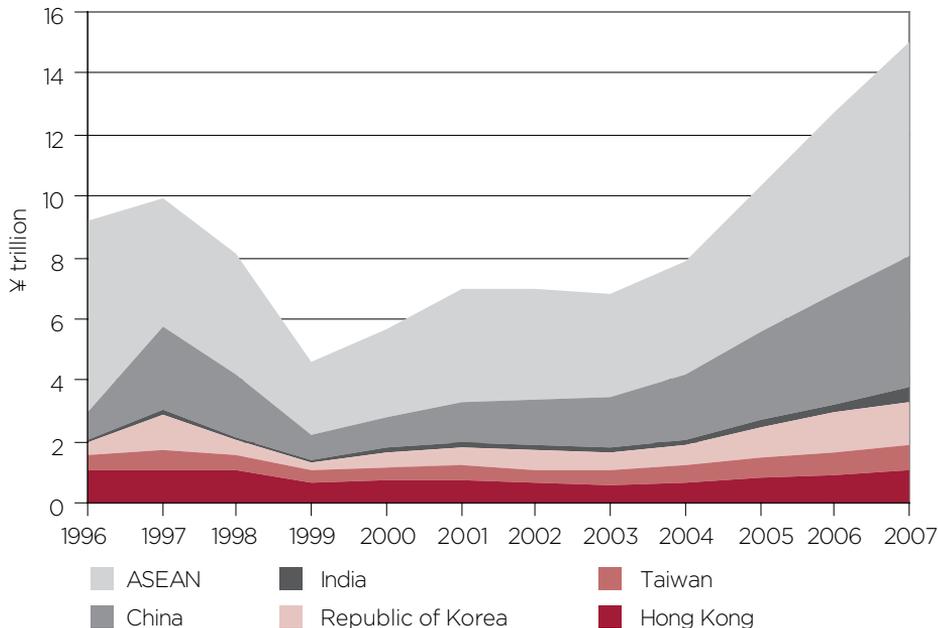
Source: 'The coming age of China-plus-one', Fujita and Hamaguchi presentation at IDE-JETRO workshop, January 2006, reproduced in Baldwin (2006a).

These firm-level data are reflected in the broader data on Japanese investment into Asia (Figure 3.18), which show that the major growth destinations are China and ASEAN countries—important centres for the cross-border production networks that are behind much of the expansion of manufactures trade in the region (Donald 2008).

Figure 3.18

Japanese direct investment into Asia is concentrated in China and ASEAN

Stock of foreign direct investment by Japan in Asia (end of calendar year)

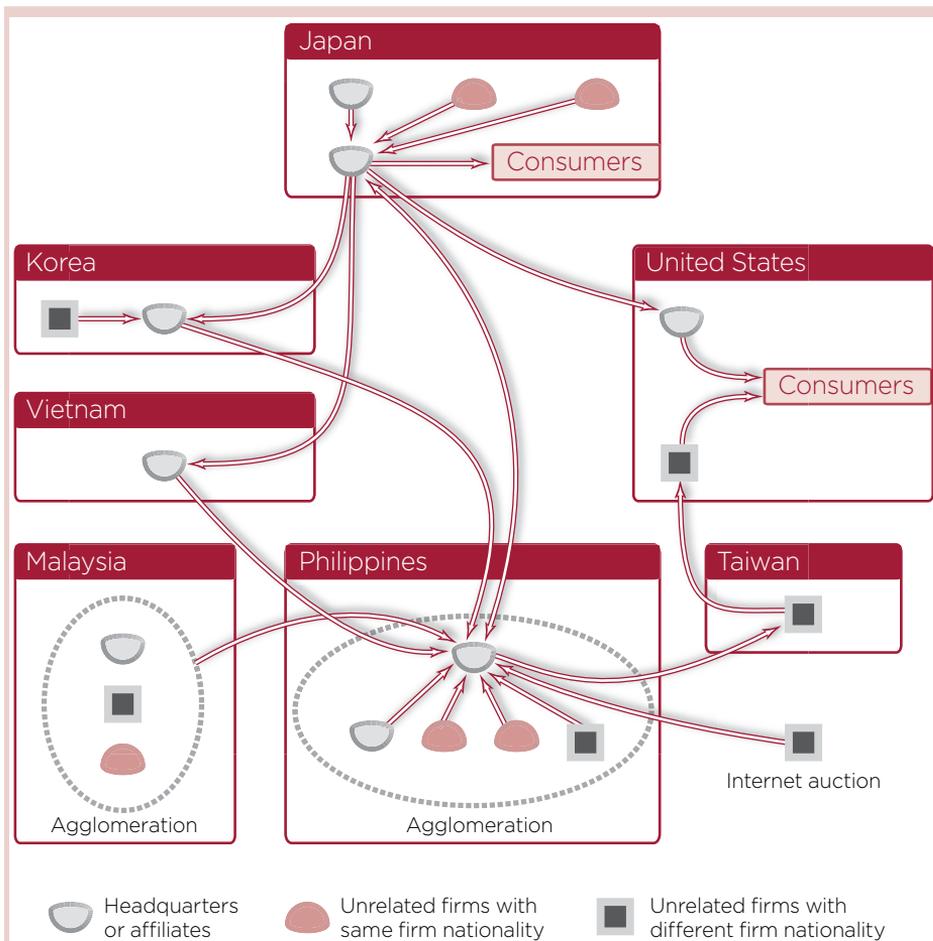


Source: Bank of Japan database.

Box 3.2 What are regional production networks?

The way that many goods are produced (and some services supplied) has changed. The essential element is that these are no longer processes that take place in one factory or office; instead, the tasks are divided so that each is performed in the place where it can be done most efficiently or most cost-effectively. Economists have labelled this the fragmentation of production. Sometimes what results are value chains, where the production remains essentially linear (company A completes the first stage of the production process, then the good is sent to company B for the next stage). In a production network, inputs are received from a variety of firms which are then integrated. Personal computers and other electronic products are frequently cited examples, typically involving assembly in China of components from countries such as Singapore (disk drives), Taiwan (memory chips) and South Korea (screens). Even individual components are produced in the same manner: a hard-disk drive assembler in Thailand purchases parts from Japan, the United States, Mexico, China, Taiwan, Hong Kong, the Philippines, Indonesia, Malaysia, Singapore and Thailand itself (Hiratsuka 2007).

The diagram on the following page, based on the operations of a Japanese electrical machinery producer, illustrates the extent to which such production networks extend across East Asia and even beyond.



Source: Ando and Kimura (2008).

A crucial element of production networks is efficient operation of the service links between the different parts of the network. To ensure the availability of essential components, firms have adopted a number of strategies. One is to employ specialist logistics firms to manage a 'hub warehouse' near the assembler; another is to require suppliers to deliver parts every two to three hours (Hiratsuka 2008). To meet the demanding production schedules, many parts are transported by air rather than shipped when moving from one country to another: in the machinery sector as a whole, more than 60 per cent of machinery parts have been air-freighted (Hayakawa 2008); this mode was chosen because these parts are (relatively) high value and low weight with consequent low freight costs.

A key driver of the investment decisions of Japanese firms, and the consequent growth of regional production networks, was the reduction in competitiveness that flowed from the major appreciation of the yen against the US dollar and other major currencies after the 1985 Plaza accord (under which the US, UK, Japanese, French and West German central banks agreed to intervene in currency markets), and the emergence of Japan's bubble economy in the second half of the 1980s (Urata 2006). Another critical factor, especially for many small and medium-sized enterprises, was the importance of maintaining relationships with their major

customers. Thus, many suppliers of parts and components, especially in the automotive, machinery, electronics and electrical equipment industries, followed large Japanese firms abroad. This was evident in Australia, where a number of 'tier one' and other preferred Japanese suppliers to Toyota and Mitsubishi opened factories near the carmakers' plants. Estimates suggest that up to 50 per cent of Japanese outward direct investment in the 1990s was by small and medium-sized enterprises (Urata 2006).

While there has been concern in Japan, from the mid-1980s, that this trend would lead to a 'hollowing out' (*kudoka*) of manufacturing industry in Japan, and in Australia about possible effects on Japanese demand for imports from Australia of minerals, energy and other inputs into manufacturing, the data are mixed. On the one hand, a 2006 survey of more than 5,000 large firms across all manufacturing sectors showed that only 21 per cent were outsourcing offshore (this included service delivery—research and development, information services, customer support and professional services—as well as production of goods) and this offshoring included both foreign-owned firms and subsidiaries of other Japanese firms, in addition to the firms' own subsidiaries (Ito et al. 2007).

On the other hand, earlier survey data cited in Urata (2006) showed that cheaper offshore production was a key factor in investment and affected the proportion of production undertaken in Japan. According to firms, especially those in the textiles sector and those producing non-transportation machinery, low-cost production for export back to Japan and other markets motivated much of the direct investment in East Asia (in contrast to direct investment in North America, where the most important reason was local sales). The overseas production ratio for Japanese firms with overseas investments rose from 18.3 per cent in 1993 to 41 per cent in 2002, and for all Japanese firms (multi-national and domestic) the increase was from 7.4 per cent to 17.1 per cent. However, there were significant differences between sectors: much of this increase came from the transport machinery and electrical machinery sectors (Urata 2006). Research by Ando and Kimura (2007) shows that the employment effects were mixed: manufacturing firms with offshore affiliates were more likely than other firms to increase employment in Japan and, when jobs in Japan were shed, the percentage decrease was likely to be smaller.

These investments in East Asia have led to patterns of production—and trade—that differ considerably from those associated with Japanese investment in North America, Europe and Latin America. In those regions, Japanese investment—while in total exceeding that in East Asia (see Figure 3.15)—has not been associated with production networks and with the dramatic changes to trade flows found in East Asia, including to and from Japan. In East Asia, Japanese investment has led to increases in intra-firm, intra-industry and intra-regional trade.

Intra-firm trade (trade between an affiliate and headquarters, or between different affiliates) rose sharply between 1992 and 2001 (Urata 2006). In the early years of Japanese investment in East Asia such transactions were largely parts and components being exported from Japan to factories offshore which then produced finished goods that were exported back to Japan or other developed-country markets. However, exports from affiliates to the parent firm in Japan constituted only a small proportion of the large increase in intra-firm trade, and the value of transactions where the Japanese parent sold intermediate goods to its affiliates in East Asia actually declined. Rather, most of the increase was in the share of intra-firm transactions by affiliates in their country of location and with affiliates

in third countries (Urata 2006). This finding is consistent with the clustering of related producers, as reflected in the investment and production patterns of the automotive industry and other machinery firms where preferred suppliers accompany producers when they establish offshore operations.

Intra-industry trade—indicative of regional production networks—expanded substantially from 23 per cent in 1985 to 40.9 per cent in 2003 (Aminian et al. 2007). Much of the increase was in 'vertical' intra-industry trade (in which products of different quality and price are traded, most commonly parts in one direction and finished products in another). Trade in parts is particularly important in the machinery and electrical equipment sectors.

Similarly, intra-regional trade in East Asia has grown considerably—from less than 35 per cent in 1980 to around 50 per cent in 2007—while intra-regional trade in the European Union and North America has not grown as much (Fujita and Hamaguchi 2006 and authors' calculations).¹² As a result of the growth of production networks, more than 60 per cent of intra-regional trade in 2003 was in parts and components (Fujita and Hamaguchi 2006), while, for some sectors such as electrical goods, the figure was even higher—85 per cent between 2000 and 2004 (Urata 2006). Intra-regional trade expanded across the spectrum of manufactured goods; only in the textiles and clothing sector did trade in parts not increase as a share of intra-regional trade (Urata 2006). Reflecting the industries in which production networks have been most significant, trade in electrical and general machinery as a share of total inter-regional trade grew from 28 per cent in 1990 to 46 per cent in 2003 (Fujita and Hamaguchi 2006).

Box 3.3 Trade with Japanese companies but not with Japan

One consequence of the expansion of offshore activities of Japanese firms is that an increasing proportion of the transactions between those firms and Australian buyers and sellers is no longer recorded as trade between Australia and Japan.

One example of this is in trucks and other motor vehicles for transporting goods. In 2005, after many years in which Japan had been the principal supplier of Australian imports of such vehicles, the value of imports from Thailand exceeded those from Japan. This was not because of some shift in consumer preferences in Australia away from the vehicles produced by Japanese firms. Rather, Japanese firms are increasingly sourcing such vehicles from their factories in Thailand. This continues a trend that began in the late 1980s and early to mid-1990s (although Japanese firms first established assembly operations in Thailand in the 1960s (Fujita and Hamaguchi 2006))—indeed, some firms no longer produce light trucks (pickups) in Japan.

A small number of Japanese companies are also sourcing a significant proportion of their passenger motor vehicles from Thailand. In response to continuing cost differentials between Japan and Thailand, a number of companies expect the proportion of their imports of passenger motor vehicles being produced in Thailand to increase.

¹² East Asia is defined as ASEAN 10, China, Japan, Hong Kong, Korea and Taiwan; the EU as EU15; and North America as Canada, Mexico and the United States.

One factor that is likely to see this trend continue is the duty-free entry to Australia of motor vehicles from Thailand under the Thailand–Australia Free Trade Agreement (TAFTA). (Imports from Japan are currently subject to the 10 per cent MFN tariff on passenger motor vehicles and 5 per cent tariff on motor vehicles for transporting goods.) While this is a relevant factor for most Japanese companies for many of their models of passenger motor vehicles, at least some firms had made their decisions about where to produce small trucks prior to the negotiation of TAFTA.

It is unclear to what extent a similar phenomenon is occurring with Australian exports to third countries: it is difficult to obtain data about purchases from Australia by Japanese firms based in China and ASEAN countries. Trade data about wool exports support the hypothesis that Australian exports have shifted from going directly to Japan to going to third countries for processing before export to Japan. (See Box 1.1.) As the production of motor vehicles uses metals such as steel (i.e. iron ore, metallurgical coal and manganese, as well as nickel for stainless steel), aluminium and magnesium in large quantities, it is likely that some of those raw or processed minerals and ores that were previously exported to Japan are now being exported to third countries such as Thailand.

In contrast to the significant participation of Japanese firms in regional production networks, the involvement of Australian firms—including subsidiaries of Japanese multinational corporations—is more limited, although the picture appears to be different for service providers than for manufacturers. (One reason few Australian subsidiaries of Japanese firms are participants in East Asian regional production networks is that the vast majority of these firms also have subsidiaries in China or other East Asian countries, and the degree to which these different subsidiaries are allowed to compete with each other is unclear.) Australian exports of parts and components for machinery (including motor vehicles) and ICT—the sectors where East Asian production networks and intra-industry trade are strongest—are small but growing. As a result of the geographic distance between Australia and East Asian countries, this trade is concentrated in higher value-added products that are less sensitive to time and cost demands (Donald 2008).

In the case of services, trade and investment data suggest a greater involvement by Australian firms in regional production networks. This includes production networks to deliver services (for example, hospital management) and services embodied in the production of goods (including business services and logistics) (Donald 2008). A growing proportion of direct investment into and out of Australia is in services. Australia's overall trade in services is greater than might be expected given characteristics such as distance from major markets and income levels, according to gravity model and trade intensity index research commissioned for this report (Corbett et al. 2008).

Box 3.4 The impact of trade agreements on regional trade and investment

An interesting issue is the extent to which regional integration and regional production networks have been affected by the proliferation of free trade agreements and other preferential agreements. The original decisions of Japanese companies in the late 1980s and 1990s to locate production of textiles, clothing and other relatively labour-intensive consumer goods in China were made at a time when China was not only not a party to any such agreements but not even a member of the World Trade Organization (WTO) or its predecessor, the General Agreement on Tariffs and Trade.

The growth of trade and investment in the region, especially intra-industry trade, supports the hypothesis that Japan's economic partnership agreements and other free trade agreements in the region have followed what companies are doing in some sectors—developing regional or global production networks based on trade and investment—rather than creating the conditions for such activity. Tapping into these powerful forces at work provides a substantial commercial foundation for such agreements.

If free trade agreements are following what companies are doing—at least in sectors such as machinery and electrical and electronic equipment and parts—other trade and investment policies of governments in the region have been crucial in allowing production networks to develop and trade and investment to expand. The decisions by many governments in the region to reduce their trade and investment barriers unilaterally played a significant role, as did the use of duty drawback schemes and duty-free treatment for plants operating in export processing zones that, in practice, ameliorated the effects of tariff and other barriers (Baldwin 2006a).

Another major influence was the decisions of countries in East Asia to become parties to the Information Technology Agreement. This plurilateral agreement under the WTO (which only applies to those WTO members that become parties to it) requires parties to reduce to zero tariffs on an agreed list of parts and equipment used in the information technology sector. It is this sector that is most highly integrated in the region and for which regional production networks are most important.

What does this mean for the Australia–Japan relationship?

If integration continues at current or greater levels—an assumption that may be threatened if increased transport costs reduce the profitability of such arrangements (see Hayakawa 2008 for a discussion of transport arrangements chosen by Japanese firms for intra-regional trade) or if exchange rate volatility increases the hedging and associated costs needed to sustain the production networks (Hayakawa and Kimura 2008)—the potential impact on firms in Australia and Japan may be profound. In particular, high levels of integration place a premium on participation, as the prospects for firms outside production networks will be curtailed. While Japanese firms have played a prominent role in the development and expansion of such networks, firms in Australia have been less successful to date, although there are exceptions, especially in the services sector.

The ongoing restructuring suggests both that Japanese investment in China and ASEAN countries in particular will continue to draw Australian exports of commodities into the region more broadly (rather than just to Japan), and that the region will continue to be increasingly important as the source of 'made by Japan' imports into Australia.

Combating carbon

Both Australia's and Japan's economies will be affected, perhaps transformed, by policy responses to concerns about climate change—in particular the emission of carbon dioxide (CO₂) and other greenhouse gases to the atmosphere. These effects may in turn have major implications for the bilateral commercial relationship given its highly carbon-intensive nature.¹³

Economic structure

The economic impact of climate change depends on a number of factors. One of the most important is the structure of each country's economy. Japan's economy is both less energy intensive and less carbon intensive than Australia's. This is a consequence, among other things, of the two countries' natural resource endowments and energy policies (and associated responses by companies and consumers).

Japan is more energy efficient compared not only to Australia but also to most other industrialised economies.¹⁴ Japan's high degree of energy efficiency reflects the changes in its energy policy (and consequent major adjustments by companies and consumers) in response to the first and second oil shocks in the early and late 1970s as well as, to a lesser extent, the policies Japan introduced to comply with its Kyoto Protocol commitments. These measures had the effect of partially decoupling energy use and economic growth: energy use had grown more rapidly than GDP from the late 1950s to the first oil shock but effectively plateaued between the mid-1970s and the early 1980s, and only then began to increase again, albeit more slowly than before. At the same time, energy intensity (measured in energy use per unit of GDP) improved: between 1973 (the time of first oil shock) and 2005, it decreased by 35 per cent (Kanekiyo 2007).

This end-point comparison of energy intensity, however, does not present a complete picture as most of the aggregate improvement in efficiency was achieved in the 1970s and early 1980s; since 1984 total energy efficiency has remained steady at about 0.14 kilograms of oil equivalent per dollar of GDP. (This contrasts with the steady improvement in energy efficiency in the United States and the OECD during that period, albeit to levels more than 33 per cent and 20 per cent respectively above those of Japan. A number of European countries, however, are improving rapidly and may overtake Japan in the next few years.) This is not to suggest that there have not been improvements in Japan: industries such as steel production now use up to 35 per cent less energy per tonne of steel than in the 1970s (Katz 2008). However, the improvement in the industrial sector has been balanced by worsening domestic energy efficiency, in part because of the

¹³ Strictly speaking, carbon intensity refers to either the ratio of carbon emissions produced to GDP or the ratio of carbon dioxide to energy of different fuels. Here the term is used more broadly to encompass the trade in energy-intensive products such as aluminium and smelted metals as well as in relatively carbon-intensive energy such as coal.

¹⁴ While energy consumed per unit of GDP is a commonly used measure of energy efficiency, there are issues relating to the calculation of such data. See Suehiro (2007).

increased number of electric and electronic appliances. Thus, energy consumption per capita, which fell after both the oil shocks, rose steadily from the early 1980s until the mid-1990s and has remained stable since, albeit almost 50 per cent higher than in 1982 (Kanekiyo 2007).

The oil shocks also caused a change in Japan's energy composition: oil had accounted for over 70 per cent of its energy mix at the time of the first oil shock; by 2000 it had fallen to about 55 per cent with some increase in the use of coal and the growth from virtually nothing of nuclear power and natural gas (Ninomiya and Jung 2003). Japan's consumption of oil has fallen by 13 per cent since peaking in 1996, with demand dropping more rapidly after the price of oil began to rise dramatically in 2004 (Katz 2008).

Japan's carbon intensity (emissions per unit of GDP) has also changed over time. The expansion of energy-intensive industries during the 1950s and 1960s, and the mix of fuels Japan was then using, meant that the carbon intensity of its economy increased up to the mid-1970s. Since the oil crises, Japan's carbon intensity has consistently decreased. However, the rate of the decline slowed during the 1990s from the 2.5 per cent per annum of the previous decade to 0.3 per cent per annum. The improvement (i.e. reduction) in carbon intensity has been greater than the 30 per cent improvement in energy efficiency during the same period, meaning that there has been a decline in carbon emitted per unit of energy used (Ninomiya and Jung 2003).

Table 3.3

Japan's economy is far less carbon intensive than Australia's

Emissions of carbon dioxide per unit of GDP, 2005

	GDP (US\$ billions)	CO ₂ emissions (millions of tonnes)	CO ₂ emissions per unit of GDP (tonnes/US\$ thousand)
Japan	4,571.3	1,293.5	0.283
Australia	708.0	387.3	0.547

Sources: IMF database; UNFCCC database.

Japan's high level of energy efficiency compared with Australia and other economies offers potential advantages and disadvantages in responding to concerns about climate change. On the one hand, the policies adopted in response to the oil crises show how firms can adapt, and offer some lessons in both designing and implementing energy efficiency policies and measures. On the other, Japan's previous success may constrain its future options for domestic action, at least in certain industries.

Improving energy efficiency has been identified as a central element of potential carbon abatement policies. Some analysts have argued that 'picking the low-hanging fruit' through easily implemented energy efficiency measures would allow significant reductions in carbon emissions without major economic disruption (Enkvist et al. 2008). In some sectors Japan's remaining fruit, however, are hanging higher, because many of the measures that can be easily implemented are already in place. In the production of steel and cement (including clinker), for example, firms in Japan already use less energy per tonne of output than their rivals in major developed and developing countries; and in the chemicals sector and the production of pulp and paper, Japanese firms are close to world's best. Similarly, while household energy consumption has increased, Japan has already replaced

incandescent globes with fluorescent ones and there is widespread use of highly efficient heat pump technology in water heaters (METI 2008).

Australia's economy is more energy intensive—and carbon intensive—than Japan's (and all but six other OECD countries). Notwithstanding this high ranking, Australia's economy is 'about 5 per cent less energy intensive than the world average and about 8 per cent more energy intensive than the OECD average' (Garnaut 2008: 158). In contrast to Japan, Australia's energy intensity was 'broadly stable during the 1970s and 1980s, and then fell by an average of 1.1 per cent a year during the 1990s' (Garnaut 2008: 158).

Australia's higher energy intensity is a consequence of many factors. One is the plentiful supply of many forms of energy—in contrast to Japan's almost complete dependence on imported energy—especially coal, of which Australia is a major global producer and the world's leading exporter. Another is that the oil shocks did not lead to similar policy responses in Australia, in part because a number of significant sources of energy were discovered and/or came on-stream around the time of the oil shocks (such as the Bass Strait oil and gas fields and the North West Shelf gas fields). Yet another is the extensive production of energy-intensive products such as aluminium and the smelting of non-ferrous metals.

This difference in economic structure—together with other aspects of the two countries' different resource endowments which have meant that land clearing has increased CO₂ and other greenhouse gas emissions in Australia but not in Japan—is reflected in the data on carbon intensity (Table 3.3) and on CO₂ emissions per capita: Australia has consistently emitted at least 175 per cent of Japan's levels and, for most of the decade since the late 1990s, closer to (or more than) twice Japan's levels. The major contributing factor is the high emissions intensity of energy generation and use in Australia, a consequence of Australia's reliance on coal for electricity (Garnaut 2008). Differences in economic structure and resource endowments also contribute to the differences between Australia and Japan in emissions of other greenhouse gases. For example, the large numbers of sheep and cattle mean that 'Australia's per capita agricultural emissions are among the highest in the world' (Garnaut 2008: 153).

Other factors can also affect the demand for energy and the efficiency with which it is used. One of these is change in population size. The extent to which Japan's demographic trends will contribute to reductions in energy consumption and increases in energy efficiency is unclear. In general, however, a declining population should reduce demand for energy; conversely, the expected growth in Australia's population is likely to increase demand for energy.

Policy responses

Another factor that will affect the impact of climate change on the economies of the two countries—and on the bilateral commercial relationship—will be the policies each chooses to respond to the issue. Both governments have identified climate change as a critical issue for the future and have foreshadowed additional policies to help their countries adjust.

The biggest potential impact on the bilateral commercial relationship will be Japan's decisions about its future energy mix. Prior to the hike in coal, oil and LNG prices in 2007 and 2008, Japanese authorities envisaged a continuing substantial role for coal as source of base load power generation but with an increasing role

for LNG. This has already been reflected in contracts for larger volumes of LNG starting from 2009. Any reconsideration of the share of coal-sourced electricity could have mixed effects on the bilateral energy trade: imports of coal may be reduced while imports of LNG grow. If government policy and public opinion towards nuclear power change, uranium imports may also grow. However, changing energy infrastructure takes a long time and the results of such a reconsideration would not show up in bilateral energy trade for several years. Changes in Japan's energy mix are also likely to be limited by the extent to which 'clean coal' technologies, including carbon capture and storage, become commercially viable after 2020. Successful commercial use of such technologies would be likely to enable coal from Australia to remain a principal source of energy in Japan.

Another critical factor will be the future size of energy-intensive industries such as steel and cement. Japanese production of these two products has remained substantial, notwithstanding the transition from a rapidly growing to a more mature economy with a substantially greater services sector. One reason has been the continuing domestic demand from infrastructure spending: one of the policies adopted by successive Japanese governments during the lost decade was high levels of spending on roads, bridges and other public works as part of the package to revitalise the economy. The high levels of public debt incurred as a consequence—now among the highest in the OECD—make it unlikely that such policies will be resumed, especially as expenditure on public works has declined steadily during the decade from 1998 from over 8 per cent to under 4 per cent of GDP (The Oriental Economist 2008). However, future steel production may be affected by industry relocation: two industry leaders, Nippon Steel and JFE Holdings, have foreshadowed plans to build blast furnaces offshore, something not previously done by Japanese steel companies (Iinuma 2008).

The impacts on the bilateral relationship of Australia's policy and technical responses to climate change are likely to be less and to be felt mainly on Australia's exports to Japan. These will include the impact of an emissions trading scheme and other measures on export efficiency and competitiveness; and the success (or otherwise) in developing carbon capture and storage and related technologies affecting the greenhouse gas emissions from the coal industry.

Abatement and mitigation policies are likely to make Australia a consumer of energy-efficient technology. While it will be a smaller market than Japan itself or some other developed countries, it may nonetheless still be potentially important for Japanese firms. Similarly, if research in Australia—some of which is being undertaken jointly by the Commonwealth Scientific and Industrial Research Organisation, Australia's national science agency, and Japanese researchers—is successful in developing carbon capture and storage and related technologies then there may be commercial opportunities for Australian (and Japanese) firms.

Commercial reactions

Yet another factor that will affect the impact of climate change on the economies of the two countries—and on the bilateral relationship—will be the reactions of companies to the issue and to the policies implemented by the governments. As many analysts have noted, climate change presents both challenges and opportunities for companies. Many of these will arise from the imperatives to develop new technology and/or enhance existing technology, including the support that is likely to be provided by both governments for R&D. Already a number of

Japanese motor vehicle producers, which are at the forefront of global technology in this area, have signalled their intention to increase production of and conduct further research into hybrid cars and technologies such as fuel cells. Another area where the technological edge of Japanese firms is likely to present opportunities is in the use of photovoltaic cells to generate solar energy. Australia's natural resource endowment—including plentiful sunshine, deposits of silica and relatively cheap energy—may enable commercial developments to deliver benefits to both countries.

Challenges confronting Australia

The performance of Australia's economy during much of the period since the late 1980s has contrasted with that of Japan's. For many of those years Australia was among the fastest-growing economies in the OECD, following major market-opening and regulatory reform in the 1980s and 1990s. After 2003 its growth was further underpinned by a dramatic increase in international demand for the natural resources Australia possesses in abundance—principally iron ore, coal, other minerals and energy—leading to a dramatic improvement in its terms of trade, a consequent increase in the international buying power of the Australian dollar, and substantial fiscal surpluses. Some of the issues that loomed large while the research for this report was being undertaken—the impact of a strong and appreciating dollar and the rise in terms of trade to levels not experienced since the Korean War-induced boom of the early 1950s (see Figure 3.20)—now look as though they may be yesterday's concerns as a result of the dramatic changes wrought by the global financial crisis. Others, however, such as the ongoing need for productivity improvements and the need to address infrastructure bottlenecks, will continue to pose challenges.

The imperative for improved productivity is as salient for Australia as it is for Japan, even if Australia does not face the same demographic pressures as Japan. The Australian Government's *Intergenerational Report* estimated that annual productivity growth across the economy of 2.25 per cent rather than 1.75 per cent would lead to an economy about 20 per cent larger in 40 years' time (cited in Davis and Rahman 2006). While there has been a relatively steady improvement in output per hour compared with the United States since 1960 (Figure 3.6), the trend since the late 1990s has been less encouraging. This picture at the aggregate level disguises considerable differences among industries. For example, Australia's productivity in the mining sector is superior to that of the United States, but there are large gaps between US and Australian levels in sectors such as manufacturing, wholesale trade, retail trade, utilities (electricity, gas and water), communications and finance (Davis and Rahman 2006; Dolman et al. 2007). (The United States is used for comparison because it is widely recognised as the international benchmark.) While a few European countries have levels of productivity higher than or similar to that of the United States (typically the result of high productivity in a sector that dominates the economy like oil and gas in Norway), there are a number of factors that suggest this is unlikely for Australia. These include aspects of geography and history such as Australia's relative distance from the global centres of economic activity and the distance between centres of economic activity within Australia, which may explain up to 45 per cent of the productivity gap (Battersby 2006).

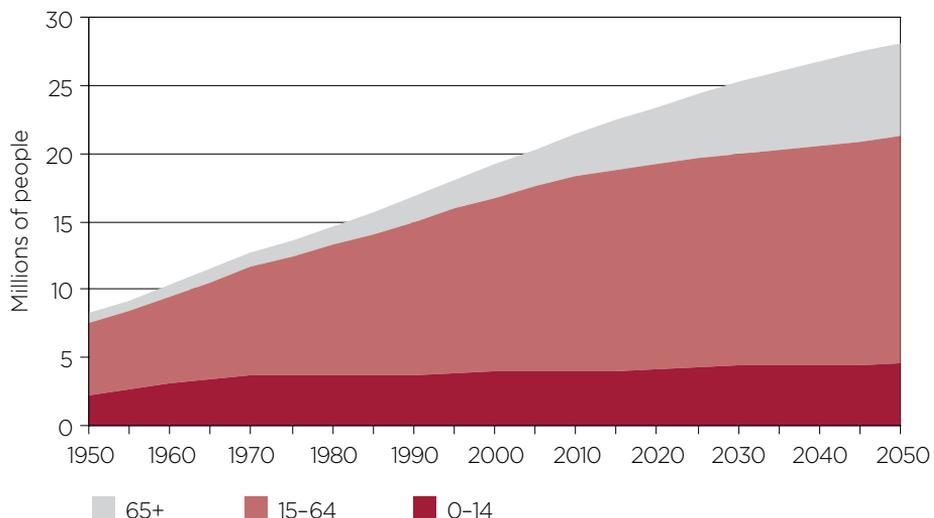
Productivity is also affected by skill levels. Historically, there has been a large discrepancy between the United States and Australia in the share of the population completing high school, often used as a proxy for skill levels. This has changed over the decades as the proportion of school leavers in Australia completing high school has increased, and there is little difference now between the two countries (Davis and Rahman 2006). Nonetheless, shortages persist in a number of skilled and semi-skilled occupations and, as in Japan, the government faces policy challenges to address the problems. Immigration has been seen as a partial solution but, while attracting considerably less opposition in general than in Japan, recent policies aimed at addressing shortages of unskilled workers in the horticulture sector through a guest worker program, for example, have been criticised.

Demography also affects economic growth prospects and the longer-term demographic trends look more favourable for Australia than for Japan. UN population projections suggest that, while Australia's aged dependency ratio is also starting to rise, Australia will still benefit from a growing workforce and youth population in absolute terms through to 2050 (Figure 3.19). The increase in the birthrate in the 2000s and the increasing levels of net migration from the late 1990s in Australia are having an impact on projected total numbers and, given the increased emphasis on skilled migration, on the skill levels of the workforce.

Figure 3.19

Australia grows older more slowly than Japan

Australia's population by age group, 1950–2050 (UN medium scenario)



Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, *World Population Prospects: The 2006 Revision and World Urbanization Prospects: The 2005 Revision*, <<http://esa.un.org/unpp>>.

Of course, it is not population size and age structure alone that determine the size of the labour force: changes in the participation rate, which measures the percentage of the working age population in or seeking paid employment, are also relevant. While the participation rate has increased steadily since the late 1970s, recent projections assume stable levels in the future, leading to a slight decline in the contribution to future growth (Commonwealth of Australia 2007).

Another challenge confronting Australia is infrastructure. Again, geographic dispersion and the large distances between major centres of population and

economic activity act as constraints on and impediments to the easy or cheap provision of the infrastructure necessary to maintain economic growth and a high standard of living. This problem has been compounded by underinvestment during the 1990s and the first half of the 2000s. While plans are now under way to remedy this, it has already had an impact on the Australia–Japan relationship (see Box 4.1).

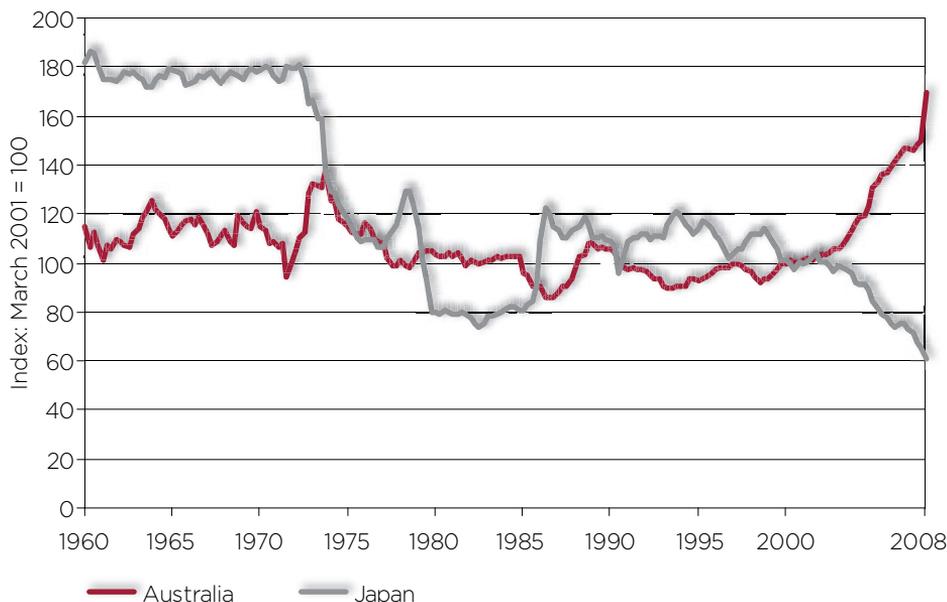
One of the factors that will affect the ongoing demand for infrastructure is whether the resources boom resumes. The rapid decline in prices began for commodities like nickel in the second half of 2007 and has now affected virtually all resources and energy, as well as a number of food and agricultural commodities. What is unclear is whether these dramatic falls are the bust that has historically followed every boom or whether they are a hiccup in what some analysts (for example, Garnaut and Song (eds) 2007) have described as a ‘super-cycle’ in which prices stabilise at high levels rather than return to their long-term secular decline.

If prices do return to anything approaching the levels reached during the 2003–08 period, Australia will face an additional range of challenges. Past experience suggests that higher commodity prices translate into a surge in the terms of trade (Figure 3.20, which also shows the impact of rising commodity prices on the terms of trade for Japan, a considerable importer of many commodities) and an appreciation of the Australian dollar, and then lead to inflationary and other pressures in the domestic economy that are difficult to manage. These pressures were mostly contained during 2003–08 (McKissack et al. 2008). However, a particular concern is the extent to which such pressures might translate into ‘Dutch disease’, where the competitiveness of firms in other sectors of the economy declines. To the extent that such pressures develop and lead to firms going out of business, they can limit the longer-term options at an economy-wide level by narrowing a country’s economic base.

Figure 3.20

Australia’s terms of trade improve while Japan’s deteriorate

Terms of trade for Australia and Japan, 1960–2008 (quarterly)



Sources: ABS (2008b); IMF, International Financial Statistics database.

What we can expect is that if Australia's terms of trade return to anything like the levels of 2007 then manufacturers and services providers in Australia will be under pressure to increase the value added to their products through intellectual and technological content. These trends are likely to drive greater exposure of the Australian economy to trade in services and to result in increased flows of outward foreign direct investment from Australia, particularly in the manufacturing and services sectors. Gravity models currently suggest that Australia actually trades somewhat more in services than the characteristics of its economy (including distance from major markets) would suggest, but it remains, nonetheless, a relatively small international trader in services by OECD standards.

Conclusions and implications

As noted above, it is not possible to state with any certainty what the economic fortunes of either Australia or Japan are likely to be in the medium to long term. Given the important structural factors outlined above, however, it seems clear that the Japanese economy, in particular, is likely to undergo significant change, especially if it is to meet the challenges posed by its demographic structure. Specifically, it is likely that a successful Japanese economy in the 2020s and beyond will have:

- a population that is at least somewhat more diverse, reflecting the need to import labour in the face of shortages of indigenous labour supply
- a far more open and hence productive services sector with larger proportions of services consumption in Japan sourced from overseas—this in turn is likely to mean that it will also have become a larger exporter of services
- a manufacturing sector that remains leading-edge in terms of its international competitiveness in highly technology-intensive fields—driving a still larger network of offshore affiliates, meaning that its economy is far more tightly integrated with that of the rest of Asia
- a more productive and efficient farming and food processing sector, focused more on higher-value agricultural and food products, mainly supplying the domestic market but with some exports of high-value, distinctively Japanese-style food products, including into Australia; and with Japanese food processing firms even more integrated into regional production and trade networks, but with Australia continuing as an important base of operations
- a significantly higher propensity to invest savings overseas so as to maximise returns
- public infrastructure development that is both funded through more diverse mechanisms than at present and delivered through more competition with overseas providers.

For its part, a successful Australian economy in the 2020s is likely to be:

- still heavily reliant on areas of comparative advantage in trade—though even with the shift to ‘clean coal’, the climate change phenomenon may have resulted in a shift in, for example, energy-related exports towards fuels such as LNG and uranium which produce lower levels of (or no) carbon emissions per unit of output
- more highly educated than at present, with consequent benefits in the skill levels and productivity of the workforce
- equipped with better infrastructure
- more involved in regional manufacturing networks, with a clear niche in high value-added parts and components and the provision of design and integration services to those networks
- adapting to the challenges of climate change, including for the agrifood, resources and energy and manufacturing sectors
- significantly more integrated in regional services trade.

As well, it seems clear that Australia and Japan will have particularly convergent interests in relation to two trends likely to shape the regional trade and investment environment into the future. The heavy basis of the commercial relationship in energy products—largely fossil fuels and particularly carbon-laden coal—dictates a strong interest in both countries in the pursuit of technological solutions to the carbon emissions problem, and an incentive to cooperate to find such solutions. And both political and economic factors are likely to drive still closer cooperation between the two countries in ongoing efforts to develop an open, inclusive regional architecture that will facilitate the ongoing economic integration of the Asia-Pacific region.

Chapter 4 looks at the implications of these trends for the bilateral commercial relationship in the future.

Key points

- Trade and investment in areas of traditional complementarities—especially in energy, resources and agrifood—will continue to comprise the vast bulk of the Australia–Japan relationship, even as these commercial links evolve further, including in response to the challenges of increased competition for resources and energy, and climate change.
- Opportunities will continue to arise for new business, driven by the changes in both economies, which will mean some sectors are growing even as others decline. Neither government nor business should let their awareness of these opportunities be obscured by unimpressive aggregate growth figures or the rapidity of the emergence of other economic partnerships that are growing faster.
- The predominance of the services sector in both Australia and Japan suggests that there should be opportunities to develop new areas of substantial trade and investment. However, a number of factors (including perceptions of each other’s economic strengths and structural hurdles such as barriers to entry and operation) present obstacles.
- Taking up these opportunities will require action to overcome distance (in dimensions other than geographic). Some of the issues (such as regulatory barriers) can be addressed by governments; others (including greater cultural familiarity and language skills) are more difficult for governments to deal with directly.
- As the indirect share of the commercial relationship (that is, between the offshore operations of Japanese firms and Australia) grows, both business and governments need to be aware of the opportunities this presents for firms in Australia to participate in regional production networks.

Chapter 4

■ The next generation



How the forces identified in Chapter 3 will play out is unclear. What is evident is that they will affect both the Australian and Japanese economies and, consequently, the commercial relationship between the two countries. The interplay between these forces and the long-term drivers of the relationship—complementarity and distance—will crucially affect the opportunities open to business and the challenges that the two governments will face.

It is important to remember that the direction and impact of the changes wrought by the shaping forces identified in Chapters 2 and 3 are not inevitable. In particular, governments in both Australia and Japan, together with business and the broader community, can address some of the impediments posed by distance—in its many dimensions—to the relationship.

Building on complementarity

It seems clear that whatever changes take place within the economies of Australia and Japan, it will be traditional complementarities that continue to drive much of the trading relationship.

Clear national and commercial interests on both sides of the relationship mean it is inevitable that **energy and resources** will remain critical to it. Regardless of Japan's future rates of economic growth, the sheer size and scale of its economy; the fact that it has very limited indigenous sources of minerals and energy; and the relative geographic proximity and political and economic stability of Australia compared to other potential sources, together with Australia's transparent foreign investment screening process, underpin the complementarity that exists here.

Box 4.1 Energy security and infrastructure

Energy security is a growing issue in Japan as concern increases over international competition for scarce supplies. Consequently, Japanese energy companies are focusing on problems that are affecting or may affect the quantity and reliability of supply. While Australia is highly valued as a source of many forms of energy, including because of the relatively low risk that flows from Australia's political and economic stability and Australia's foreign investment regime, Japanese users have identified the need for continued improvements in aspects of the supply chain such as infrastructure.

Two issues raised publicly by Japanese customers for coal are the absence of sufficient infrastructure and skilled labour in Australia to respond to the increase in demand since 2004 for coal from Australia. Shipping queues off major coal-loading ports in Queensland (Dalrymple Bay) and New South Wales (Newcastle) affected export volumes and incurred demurrage, estimated to be US\$900 million (in excess of A\$1 billion at the time) in 2006–07, with costs borne by the exporters (MINEC Pty Ltd 2007). In addition to the direct and indirect commercial impact there is the potential for the delays to 'ero[de] . . . Australia's credibility as a reliable long-term supplier to meet customer needs' (MINEC Pty Ltd 2007).

This situation arose as a consequence of excess capacity in coal transport infrastructure during much of the 1980s and 1990s, the absence of investment from the late 1990s until 2003 in response to low coal prices, and the dramatic surge in demand from 2004 which caught mining companies and infrastructure operators unprepared, utilised spare capacity and then encountered long lead times for installing additional capacity (in some mines as well).

Additional demands will be placed on the whole supply chain by any further expansion of export volumes. While Japan's imports are likely to be stable or grow at the modest rates of recent years, continued growth is forecast for global exports of Australian coal (Fairhead et al. 2006).

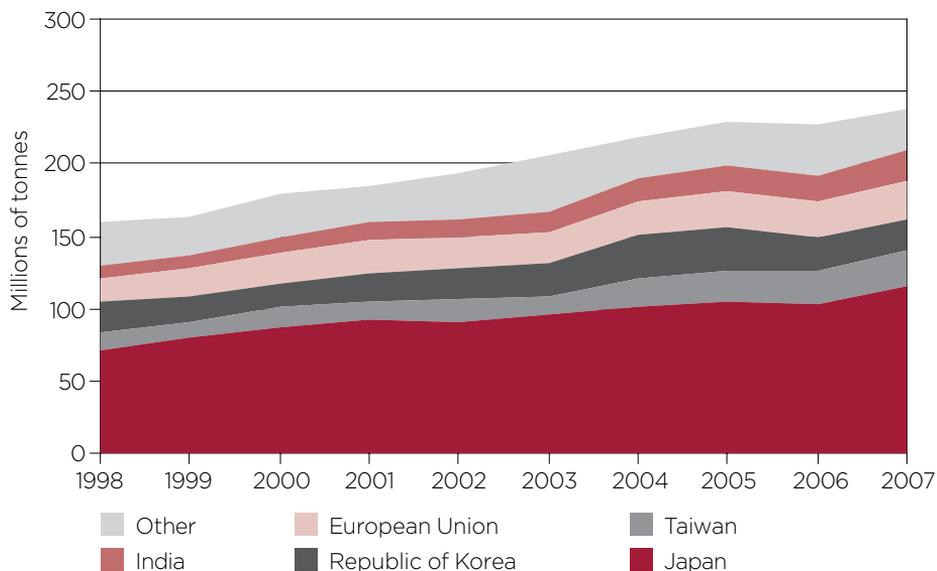
Further investment—including expansion of Dalrymple Bay and other coal-loading ports in Queensland, additional or expanded rail links, and the development of new mines and supporting infrastructure—is under way or under consideration to ensure Australian suppliers remain capable of meeting demand from Japanese and other customers. These responses are part of a broader effort afoot in Australia to address infrastructure issues, with governments at all levels recognising the importance of upgrading infrastructure to ensure Australian firms remain internationally competitive. Similarly, the additional funding provided for skills training is just one element of the broader measures to enhance the skill levels and, consequently, productivity of Australia's workforce.

Thus, for the foreseeable future, Australia and Japan will be enormously important to each other in this sector. The predominance and stability of Japanese firms as customers for Australian raw materials clearly underscores the Australian interest in maintaining and enhancing this partnership. This is the case not just for coal (Figure 4.1) and LNG (Table 4.1) but also for a wide range of other resources: in addition to its substantial purchases of nickel, mineral sands and other minerals, as noted in Chapter 1 Japan buys more than any other country of Australia's exports of aluminium and copper. For many of these minerals and energy resources there is a contrast with markets such as China, which is well endowed with natural resources (such as coal). In such markets imports can be marginal inputs—that is, the requirement for them fluctuates as overall production (of steel or whatever products they are inputs into) varies—and, if production falls, imports may not be needed at all. By contrast, in markets such as Japan imports are necessary for all production, with the result that Japanese firms will be steadier, more predictable buyers.

Figure 4.1

Japan remains the largest customer for Australian coal

Australia's exports of coal (steaming and metallurgical), 1998–2007



Source: DFAT STARS database.

Moreover, as noted in Chapter 1, with the reduced availability of LNG in the next decade from Indonesia and Malaysia—currently major sources for Japan—this trade is set to expand significantly in the medium term (Box 4.2).

Box 4.2 The demand for liquefied natural gas

Concerns about energy security and carbon constraints are making LNG a more important focus of trade and investment between Australia and Japan. From the beginning, Japanese customers—many of the regional electricity and gas utilities—have been key partners in exploiting Australia’s LNG reserves, with their long-term contracts underpinning the development of the North West Shelf. This model is being repeated in the expansion of the North West Shelf: foundation customers Tokyo Gas Company and Kansai Electric Power Company Inc. have become joint venture partners with Woodside Petroleum Ltd in the Pluto gas field, the associated exploration acreage and the infrastructure to exploit the field. This includes each company supplying a dedicated vessel to transport the LNG to Japan (Woodside Petroleum Ltd 2008).

The same concerns—energy security and carbon constraints—have also led to all the longstanding Japanese customers for LNG from the North West Shelf committing to additional contracts for periods of between six and 12 years after their current contracts expire in 2009 (Woodside Petroleum Ltd 2008). Some of these customers have also committed to take LNG from other gas fields being developed nearby: for example, Tokyo Electric Power Company and Tokyo Gas Company, both of which are shareholders in the project, have contracted to purchase the entire output of the Bayu-Undan gas field (between Darwin and East Timor) for 17 years (Mayne 2008).

Table 4.1

The long-term demand for LNG from Australia

Publicly announced agreements for LNG with Japanese customers

Buyer	Quantity (million tonnes per annum)	Period (years)	Field
Chubu Electric	0.5	7	North West Shelf
Chugoku Electric	1.2 - 1.4	12	North West Shelf
Kansai Electric	2.0	15	Pluto
Kansai Electric	0.4	8	North West Shelf
Kyushu Electric	0.73	8	North West Shelf
Osaka Gas	0.5	6	North West Shelf
Toho Gas	0.76	10	North West Shelf
Tohoku Electric	0.5	8	North West Shelf
Tokyo Electric	0.3	8	North West Shelf
Tokyo Electric	2.0	17	Bayu-Undan
Tokyo Gas	0.53	8	North West Shelf
Tokyo Gas	1.75	15	Pluto
Tokyo Gas	1.5	25	Gorgon
Tokyo Gas	1.0	17	Bayu-Undan

Sources: Woodside Petroleum Ltd (2008); Mayne (2008); Tokyo Gas (2002).

A factor likely to affect the bilateral resources and energy relationship will be climate change and possible domestic and international measures to combat it. There is now international acceptance that major reductions in greenhouse gas emissions will be required. This will inevitably create pressure to reduce demand for fossil fuels but could give rise to opportunity as well.

Japan's technological sophistication, combined with its vested interest in finding economical ways to deal with the climate change challenge, make it an ideal partner for collaborative research on techniques such as carbon sequestration and 'clean coal' technology. As shown in Table 4.2, as part of the Asia-Pacific Partnership on Clean Development and Climate, Australia already works closely with Japan on collaborative efforts between industry, government and researchers in the development, deployment and transfer of cleaner, more efficient technologies.

Table 4.2

Shared interests lead to collaborative efforts to address climate change

Asia-Pacific Partnership on Clean Development and Climate (AP6) projects involving Australia and Japan

CO ₂ -enhanced coal bed methane (Australia, Japan, China)
Oxy-fuel combustion technology road mapping and demonstration program (Australia, Japan, United States of America)
Ultra Clean Coal (Australia, Japan)
Identifying optimal legal frameworks for renewable energy in China, India and Korea (all AP6 partners)
Solar-enhanced fuels for electricity and transport (Australia, China, Japan)
Improving the cost-effectiveness of biomass energy generation (Australia, Japan, Republic of Korea, China)
Accelerating deployment of smart mini/micro grids in AP6 markets
Energy Regulatory and Market Development Forum
Best practice in power generation (all AP6 partners)
Cement centre of excellence (all AP6 partners)
Coalmine safety strategy (all AP6 partners)
Integrated coal production and methane extraction (Australia, China, Japan)
Annual steel experts workshop (all AP6 partners)

In addition to collaboration on research and development, cooperation on policy and regulation may also offer benefits for both countries. An obvious example is the possibility of linking the emissions trading schemes under consideration in both countries.

Just as the long-term trade in fossil fuels will be affected by the responses to climate change, demand for uranium, another source of energy of which Australia is already Japan's principal supplier, is expected to increase (subject to the caveats about popular support noted in Chapter 3). Japan already generates some 30 per cent of its domestic electricity from nuclear power; by 2030, this proportion is projected to rise to above 40 per cent (METI 2006) even without the more stringent measures to counter climate change that are now being mooted.

Moreover, Australia has been identified as having large reserves of renewable energy sources including wind, solar, wave power and geothermal resources (Garnaut 2007). As work continues to maximise the exploitation of these renewable energy sources, many of which are also of significant interest to Japan, increased collaboration and cooperation will become important.

Box 4.3 Using solar energy to increase the energy from natural gas

Research is being undertaken by the Commonwealth Scientific and Industrial Research Organisation (CSIRO), the Australian Government's R&D organisation, in collaboration with Mitsubishi and with some funding from Japan's New Energy Development Organisation, which could enhance the energy efficiency of natural gas. Solar energy is used to break natural gas into various components. The main objective is to obtain hydrogen for fuel cells, but there are substantial additional benefits: when natural gas is bombarded with solar energy concentrated to a temperature of about 600 degrees Celsius it can yield other hydrocarbon gases which have a combined thermal yield significantly greater than the natural gas when burnt. In effect, this process would allow the solar thermal energy to be stored in those other gases.

The climate change challenge is also highly relevant to another area in which a complementarity exists between the two economies that is yet to be fully exploited. **Agriculture and food**, as well as being one of the key complementarities on which the trading relationship has thrived, is also an area in which change, in both countries, seems inevitable. Both the Australian and Japanese agriculture sectors face the likelihood of externally imposed constraints that would result in significant structural changes in the medium to long term.

Trade in food and other agricultural products can, in effect, be thought of as trade in water and land (MAFF 2008). Australia has a lot of land but relatively little water, and much of the precipitation falls outside the major existing agricultural production areas. This situation is forecast to be exacerbated by climate change. While there are numerous scenarios for the possible impact of global warming on Australian agriculture, they tend to converge around conclusions that 'many regions [are] likely to experience increased downside risk in agricultural production' with 'regions such as southwest Australia particularly at risk of adverse outcomes associated with climate change', with farmers 'likely to face additional costs of capital adjustment due to climate change' (Kingwell 2006: 1; see also Garnaut 2008). Other environmental factors such as soil erosion and salinity are also in play—and may be exacerbated by climate change (DCC 2008).

Japan, by contrast, has much water but relatively little land—and faces continual erosion of the amount of land under cultivation through industrialisation and urbanisation. Additionally, as we have seen, Japan's agriculture sector effectively faces demographic pressure from two directions. The ageing of Japan's population and the numerical decline of its workforce are dictating that Japanese policy focus on raising labour productivity throughout the economy; agriculture is one of the key areas where labour productivity is lowest, with average wages in the sector in 2004 running at approximately half average wages overall.

Beyond farming, however, Japan has some strengths in food processing and production that suggest one avenue for increased exploitation of the complementarities between the two countries. In particular, there are likely to

be further opportunities to integrate Australian producers with the significant size, strength and growing regional and even global presence of Japan's leading agrifood companies. These companies have made a strategic decision to expand beyond the Japanese market and have established sizeable regional (and for some, global) production and distribution networks, with overseas sales a growing share of their revenues. The recent major investments by the Kirin Group in the Australian dairy sector—National Foods in 2007 and Dairy Farmers in 2008—and the additional investments it is seeking to make in the broader beverages sector may be just the first step in this direction.

Box 4.4 Food security and food safety

Two key concerns for Japan are food security and food safety. In an attempt to address food security, successive Japanese governments have set targets for the production in Japan of a specified proportion of Japanese food consumption under the Basic Plan for Agriculture, Food and Rural Areas. The targets for self-sufficiency by 2015 are 45 per cent on a calorific basis and 76 per cent on a value of production basis, an increase from the levels of about 40 per cent and 70 per cent respectively in the period from the late 1990s to the mid-2000s. Even if these targets are met, Japan will still need to import much of the food its population consumes. Food safety is also a high-profile issue, with consumers concerned following a number of incidents internationally and in Japan.

The partnership between Australia and Japan is playing a key role in helping address Japan's concerns about food security and food safety: Australia has proved a reliable supplier of safe food over many years. An important element has been the strategic investments by Japanese firms in growing and producing food for the Japanese market, including varieties preferred by Japanese consumers (such as sweeter strawberries, Fuji apples and grain-fed, marbled beef). Allied with this has been the recognition by Japanese quarantine authorities that Tasmania is free from a range of pests found elsewhere, which has facilitated sales of horticultural and other products in Japan. The substantial links between, and the changing production imperatives in, both countries will lead to opportunities for closer cooperation and integration to address the concerns about safety and security of supply.

From an economist's perspective, greater integration of agrifood production between Australia and Japan in this context would hold out the promise of significant benefits to both economies. The principal benefit would arise through the allocative efficiencies generated by the movement of relatively unproductive resources out of Japan's agriculture sector into areas where they could add greater value—a movement that would appear to be imperative for Japan if it is to achieve the economy-wide improvements of productivity necessitated by its demographic challenges.

It need not be the case that a shift of *employment* out of agriculture would lead to a decline in *production* or food self-sufficiency—particularly given that another consequence of Japan's ageing and declining population is likely to be a reduction in demand for food. Indeed, it is quite possible that a demographically driven move to larger-scale, more sophisticated farming techniques in Japan, taking advantage of new economies of scale, would have the potential to *increase* self-sufficiency through higher productivity. It is worth noting in this regard that average productivity of Australian *land* devoted to (larger-scale) rice growing is around

30 per cent *higher* (at around 8.6 tonnes/hectare) than in Japan (6.5 tonnes/hectare) (Roberts et al. 2006).

Ultimately, pressure will continue to mount on farmers in both countries to adjust their practices further so that they produce crops that maximise returns on the factors involved in production. Liberalisation of trade between the two countries would facilitate a redistribution of resources in each so that market forces provided an incentive for farmers to focus on areas where they would add the most value. The improved competitiveness brought about by dynamic gains from this increased internationalisation of Japanese agriculture could also contribute to an improved capacity to export—particularly in lucrative, high-quality products for which markets in East Asia are emerging and where Japan has strong capabilities.

Box 4.5 Adoption of Australian slaughterhouse technology assists Japanese meat industry

Cooperation on food safety and food technology has already delivered benefits to both Australia and Japan. Automated slaughterhouse technology, which was developed in Australia in the wake of E. coli outbreaks in the mid- to late 1990s, was introduced into Japan as a result of a relationship between the CSIRO and Itochu Corporation, one of the large Japanese trading houses. The adoption of this technology by Japanese abattoirs—which automated all stages of the process from slaughter to packing—enabled improvements in food safety and helped Japanese firms respond to a decline in the number of abattoir workers.

This project was just one result of the cooperation between the CSIRO and Itochu in the area of food safety and food technology. Others included the use of additives and food substitutes. A related project led to the introduction of machine-readable information on traceability: food was accompanied by a barcode that recorded where it was from, when it was best eaten and other information.

The successful adoption of Australian-developed technology flowed from the placement of a CSIRO officer in Itochu's headquarters in Japan. This arrangement is no longer in place, but cooperation continues between the two organisations in Australia.

It is fairly clear from an economic perspective that the more market forces are allowed to come into play, the more likely it is that these beneficial developments will happen. Market-distorting protectionist measures ultimately hurt domestic consumers, provide disincentives to farmers to export, and damage the broader economy by encouraging misallocation of resources.

It is, however, well known that economics is not the only discipline in play here. Economists can identify the destination for reform, in which optimal economic outcomes are achieved. But identifying a practical path to that destination, determining whether the benefits merit the trade-offs to be made in terms of managing the effects of change on existing interests, and leading events in the desirable direction, are all activities that fall under the preserve of politics. In both Australia and Japan, achieving reform is particularly complex given that farming is often seen as much as a way of life as an economic activity. Nevertheless, the Australian experience has demonstrated that it can be done—and that the benefits are real, not illusory.

Box 4.6 Dairy industry reform in Australia

The reform of the dairy industry in Australia may offer some experiences that can be drawn on when considering the potential for agricultural reform in Japan to lead to increased productivity and greater international competitiveness.

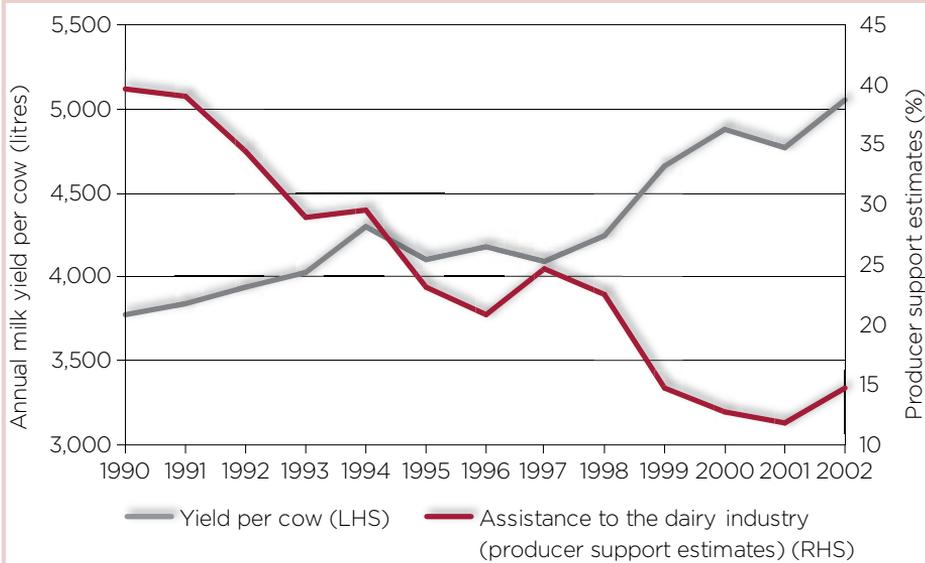
Historically, the dairy industry in Australia received extensive protection, even if substantially less than its counterparts in many other countries. This was provided through tariffs and other border measures as well as a price support scheme whereby high domestic prices for milk for drinking effectively cross-subsidised milk for manufactured dairy products, including those that were exported.

Tariffs were reduced in the 1990s, although some protection still remains, but the big changes were to domestic arrangements. Price support began to be phased out from 1986, with full liberalisation in July 2000. This accelerated the pace of adjustment: there were falls in income and a number of farmers left the industry because their farms were too small or were otherwise uneconomic. The government recognised the social dislocation that economic reform might cause and provided assistance to farmers who chose to leave the industry. However, the productivity response was remarkable: farmers responded to the changed support and pricing arrangements by expanding farm size, increasing herd numbers and/or making improvements to pasture (including through increased use of fertiliser and/or irrigation), which improved milk production per cow.

Figure 4.2

Liberalised cows produce more milk

Annual milk yields and levels of industry support, Australia, 1990–2002



Source: Centre for International Economics (2008).

There have been domestic and international benefits from these changes. Domestic consumers have paid lower prices for dairy products. Taxpayers are providing less support, even though 'the dairy industry continues to record the highest level of assistance among agricultural industries, with an effective rate of around 15 per cent in 2006–07' (Productivity Commission 2008: 2.15). As well, this assistance 'has been "decoupled" from dairy output and farm activity levels, thus diluting its effects on production incentives' (Productivity Commission 2008: 2.15). Importantly, the increased competitiveness of Australian producers since reform started in the late 1980s has led to a sizeable increase in the volume and value of exports of dairy products.

As Japanese decision-makers confront the demographically driven imperative for increased productivity they will doubtless focus increasingly on where to place the balance between the need for governments to continue to seek short-term political support and the requirement to implement economic reform that will be beneficial in the longer term. It needs to be recognised that it is for Japan's political system to work through these sensitive issues in its own time. However, we would argue that ultimately demographics, together with economics, will prevail and, in the long term, reform of Japan's agriculture sector will take place. A constructive approach by Australia's agrifood sector to the issues faced by Japan at that time could lead to a deeper partnership in this area, in a manner that could strengthen both the commercial and political relationships between the two countries.

The importance of Japanese exports of **manufactures** as inputs for Australian life and commerce, too, will continue to evolve as comparative advantage changes. So too will the nature of the trade relationship between Australia and Japan. 'Made in Japan' products—already at the high end of the value chain—can be expected to continue to become still more capital intensive as competition increases from other, particularly Asian, sources of manufactures. Australia, as one of the major developed economies in the region, can be expected to remain an important consumer of these increasingly sophisticated products. As well, if the trends towards regional production described in Chapter 3 continue, a significant proportion of Australia's imports from other regional partners—principally China and the ASEAN countries—will, in reality, be 'made by Japan' or 'made for Japan'. Australian businesses and policy-makers will do well to remember the value of their business links with Japan as they seek either to locate new sources of quality inputs or to lock Australia in as a source of supply of inputs to those manufacturing industries.

Evolution will continue to take place in **tourism and travel**, too, as it has in merchandise trade. Fundamentally, the complementarity continues to hold good: each country offers leisure travellers from the other something that they cannot easily find in their own. But economic and demographic dynamics are changing the nature of the relationship here, too. Whereas in the 1980s and 1990s Japan, with its large, increasingly affluent population of aspirational travellers wielding highly valued yen, was a growth market for the Australian tourism industry, between 2003 and 2008 it was Australian travellers who benefited from the strength of their dollar. Japan, until the massive currency movements caused by the global financial crisis, had become a price-competitive destination, and this was reflected in tourism numbers. Its profile has been raised for Australian travellers, too, by the prominent Australian investment in skiing-related tourism in Hokkaido.

Many Australian travellers are experiencing Japan for the first time as a result: this, together with the repeat business associated with the skiing, makes further growth possible, although the exchange rate remains an important wildcard.

Australia's popularity as a destination for Japanese travellers was also affected by the appreciation of the Australian dollar, as well as demographic and other factors (see Box 4.7). Even if maintained, the recent depreciation of the dollar against the yen alone may not be sufficient to attract more Japanese tourists to Australia in the face of significant competition, primarily from the increasing openness of China as a tourism destination. Australia will need to work hard and be innovative if it is to maintain its position, let alone enhance it.

While a positive brand name has been established broadly for Australia as a tourist destination, Japanese tourism operators are now emphasising the need to present Australia as a diverse destination to which it is worth making multiple visits, and to meet the specific needs of inbound Japanese tourists, in conjunction with Japanese tourism operators. More work needs to be done in this area, and to evolve Australia's approach to accommodate more diverse groups of travellers—whether the increasing numbers of schoolchildren travelling in school groups, or an older and possibly less adventurous group of retired travellers. By contrast with the past, when fears were frequently expressed that competition between different states for tourist dollars could be detrimental to Australia's image overall, different states are now being encouraged to market themselves individually (but within the overall Australia tourism umbrella)—and with the specific needs of the Japanese market in mind. One other important factor will be whether sufficient air services are maintained between Australia and Japan to provide potential tourists with suitable options.

Box 4.7 Some of the reasons behind Australia–Japan tourism trends

While it seems unlikely that the halcyon days of the late 1980s and 1990s—when millions of Japanese visited Australia and made Japan Australia's leading source of inbound tourists—will be repeated, much research is going into options to ensure Australia remains an attractive alternative for potential tourists from Japan. This research is focusing on what lies behind the data: why is it that the numbers of tourists from Japan have been declining steadily since peaking at 814,000 visitors in 1997?

A number of factors are at play, some of which relate to demographic and other social changes in Japan, others to changes in Japanese tastes and preferences and yet others to tourism services, infrastructure and marketing. For example, the changing demographics are reducing the number of travellers (even though Australia's share of Japan's outbound market has remained steady for a number of years at about 4.2 per cent—down from the peak of 5.6 per cent—the absolute numbers continue to fall), including of young people (young women were a driving force in the rapid growth of popularity of Australia), and changing social patterns have reduced, for example, the number of honeymooners.

Japanese preferences are also changing: there is increased emphasis on shorter rather than longer travel (both in terms of distance travelled and time away), which has coincided with the increased opening of China as a destination, and a growing interest in India. Notwithstanding these changes, Australia's market share has declined less rapidly than other long-distance markets. As well, more Japanese are combining leisure travel with business rather than travelling for pleasure alone. About 90 per cent of Japanese visitors to Australia come solely for leisure, a much larger share than visitors from other countries, a higher proportion of which come for business, education, employment, medical treatment or to visit friends or relatives.

Tourism services and infrastructure are also having an impact: the decline in numbers has led some operators to reduce the frequency of air services and the number of points of departure and arrival, with flow-on effects on what is available for those tourists who do come. One consideration for airlines is that they are less able than on other routes to use revenue from air freight and business travel to lower costs and justify maintaining frequency when tourist numbers fall.

Japan will remain a key market for Australia. It now ranks fourth among sources of inbound tourists to Australia, and is expected to remain in that position, even if the numbers continue to fall by 1-2 per cent per annum until 2011 as recent research suggests (R. Beere February 2008, pers. comm.). A recent major report for Australia's minister responsible for tourism (Watson et al. 2006) identified a number of objectives for marketing and planning (including the need for a strong, aligned and collaborative approach to marketing, and the need to target products at key market segments), all designed to ensure Australia remains a destination of choice for Japanese tourists. These objectives and others relating to capacity and supply issues have been foreshadowed as the focus of the National Long-term Tourism Strategy, which is to be finalised in 2009.

If it is the case that existing complementarities will remain important, but that their nature will continue to change, a frequently posed question is where we might seek the emergence of new ones.

New areas for services trade and investment

In order to develop Japan's economy, it is essential to achieve sustainable growth in the service industry, given that this sector accounts for 70 per cent of GDP and employment. At the same time as achieving enhanced international competitiveness through the introduction of new business models including the promotion of IT investment and utilization that is lagging behind in Japan in international terms and the expansion of new business entrants, including foreign companies, it is important to realize active efforts to enter overseas markets...

[T]he service industry of Japan has not made any advances towards globalization except in a limited number of fields, including the finance and insurance industry, and wholesale and retail industry. (METI 2007.)

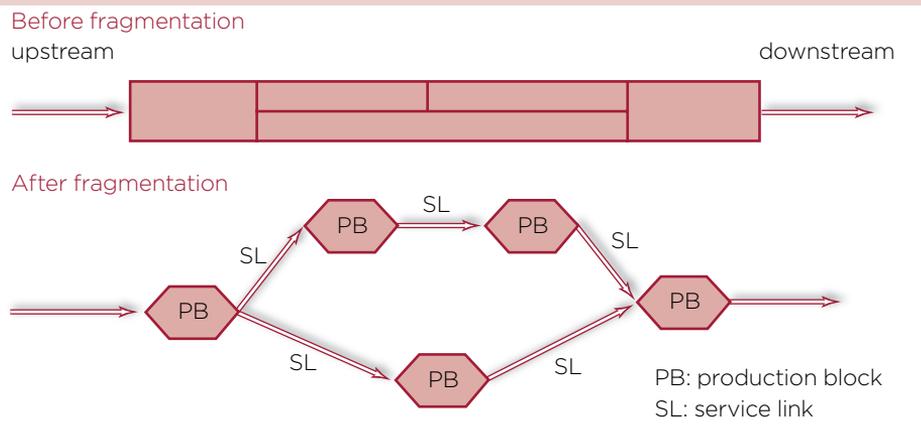
As we have seen, the direction of change in both the Australian and Japanese economies has been in favour of the services sector, which in both countries has expanded significantly during the past 15 years. Yet by comparison with the

extraordinary health of bilateral merchandise trade, services trade between the economies of Australia and Japan seems relatively small. This has led a number of commentators to suggest that services should be a prime area to look for ‘new complementarities’.

The idea that the next generation of the Australia–Japan relationship might incorporate a boom in services trade also has significant appeal in terms of the productivity challenge faced by each, as identified in Chapter 3. Particularly with the emergence of international production networks requiring sophisticated logistical and communications services, an efficient and productive services sector is seen as essential to improving productivity of the economy as a whole.¹⁵ As services trade worldwide is increasing, so (as with goods) is specialisation and the fragmentation of production driving productivity improvements. Further, there are increasing links between trade in services and trade in goods (Kiyota 2005). It is clearly in the interests of both economies that bilateral services trade be allowed to flourish, and that no obstacles be created to the involvement of service providers in regional production networks (see Box 4.8).

Box 4.8 Services and production networks

The increasing proportion of global economic activity that revolves around production networks and supply chains, as discussed in Chapter 3, opens important opportunities for services trade. Services are an integral component of production networks and supply chains for goods, which are often service intensive by comparison with traditional modes of production. Such networks exist only where supply is reliable and cost-effective, placing a premium on a range of services including transport, logistics, communications and business services (to ensure that contractual arrangements, financing and related requirements are satisfactory). The importance of services can be seen in the following graphic contrast of traditional production within a firm (before the fragmentation of production) with a production network (after the fragmentation of production).



Source: Kimura (2005).

Similar networks are developing in the services sector as digitisation and cheap, fast and reliable communications make possible, among other things, the offshore processing of data, provision of medical diagnosis (for example, X-rays), and writing of software modules.

¹⁵ For a summary of academic literature on the importance of services trade to economic growth, see Hoekman and Mattoo (2008).

While the idea that new complementarities might emerge between the two countries that would significantly boost services trade is beguiling, it is important to keep prospects in perspective.

First, it appears that the perception of underperformance in this part of the commercial relationship may be somewhat overstated. As noted in Chapter 1, empirical research undertaken for this report by the Australia–Japan Research Centre at the Australian National University (Corbett et al. 2008, available in an online appendix to this report at <www.dfat.gov.au/eau>) suggests that while it is considerably less intense than the goods trade between the two countries, bilateral services trade is greater than might be expected given the extent of each country's participation in global services trade.

Moreover, gravity modelling, which takes into account various elements of distance,¹⁶ shows that services trade flows between Australia and Japan are comparable with the flows predicted by the model for flows between OECD economies—indeed the Australia to Japan flow does not differ from the average, while the Japan to Australia flow appears slightly above average. The model is, of course, just that, and the findings of this research are not conclusive. But it can be said that it does not produce strong evidence for performance that differs from the average, at least among OECD countries (Corbett et al. 2008).

It seems likely, then, that the perception of underperformance in the services relationship may in fact be an illusion created by the overperformance of other parts of the relationship. If this is so, it is possible that the scope for an increase in services trade might not be so great as we might otherwise think.

That said, supplementing this picture with more detailed data from Japanese and Australian sources strengthens the impression that many services sectors are below the average of bilateral trade, even after taking account of country characteristics and the intensity of goods trade. There are a number of sectors (travel, insurance, finance, personal and computer services) where Australia's exports to the world are greater than might be expected given the size of its economy and its share of global services trade, but where the share of those going to Japan is lower than might be expected. These are also sectors where Australia has below-average imports from Japan, suggesting that there may be possibilities for increasing two-way flows (Corbett et al. 2008).

The second point to be made is that certain elements of the CAGE concept of distance (see Chapter 2) are particularly applicable to trade in services. Services exports, unlike goods (and particularly bulk commodities) can be delivered in a range of ways; and, far more so than for trade in commodities, many of these require a capacity by a firm or individuals to operate within the market of another country. Aspects of distance such as differences of culture, language and legal and administrative systems can be particularly important in inhibiting trade, and its close companion investment, in these areas.

The success of the Australia–Japan bilateral trade and investment relationship in respect of goods has been that the two economies' complementarity has been such that the hurdles of distance, even when high, have been overcome. In the case of services, the complementarities are less clear, and the hurdles seem higher.

¹⁶ Intensity indexes are useful as a general measure of the extent to which trade is higher or lower than proportional to the share of the exporting and the importing countries in world trade, but they do not fully capture whether a bilateral trade flow is greater or smaller than would be expected given the characteristics of each country relative to the characteristics that, on average, determine bilateral trade flows. For that, gravity models are required.

Australia is known worldwide as a world-class source of primary products, and Japan as a world-class source of manufactures. Both have significant high-end capabilities in services. However, as Australian business interlocutors in Japan who were consulted in the research process for this report repeatedly emphasised (with some notable exceptions), neither country has such an established general reputation in this regard as to make it the first port of call for potential customers from the other. As others (for example, de Brouwer and Warren 2001) have pointed out, this means that Australian companies in Japan, and Japanese companies in Australia, are likely to have to compete for both initial attention and subsequent business with a much wider range of domestic and international companies in seeking to enter each other's market than is often the case with goods trade. While a certain degree of expansion of the services relationship can be expected as a result of the ongoing development of merchandise trade (for example, the need for legal services for new energy and resources contracts), pushing the relationship into new areas may be harder.

Other, more structural, hurdles exist that will have to be overcome if services trade is to emerge as the new growth area of the bilateral relationship. In Australia's case, in particular, corporate size and structure is an important issue. Many of Australia's most innovative services providers are relatively small companies, especially in international terms. Even for major companies, undertaking steps toward internationalisation or globalisation of operations should not be done for its own sake, but rather needs to be based on a rigorous assessment of the specific opportunity in question (Ghemawat 2007). If anything, smaller companies need to be even more rigorous in their assessments, as the costs of failure are more likely to threaten the success of the company.

Box 4.9 Financial services and portfolio investment flows

Financial services and related portfolio investment flows is an area where current trends and regulatory reform could lead to an increase in trade and investment. So long as returns on investment in equities and bonds in Japan remain below those available in Australia, demand is likely to continue from both mutual funds and individual investors, subject to expectations of a substantial depreciation of the Australian dollar against the Japanese yen (of the kind induced by the global financial crisis), as this would reduce or even wipe out the gains from the interest rate differentials. Further reforms to the Japanese pension system—foreshadowed by the Japanese Government to make it more responsive to the needs of the country's ageing population—could make it easier for more investors and/or a greater proportion of their assets to be invested offshore.

Reducing the barriers to the participation of Australian funds managers and other financial service providers could also increase portfolio investments in both directions. Already the Australian Government has announced that it will improve the international competitiveness of Australian managed investment trusts by replacing the 30 per cent non-final withholding tax rate that applies to certain distributions with a reduced final withholding tax of 7.5 per cent, phased in over three years.

There is also scope for mutual benefit from broader cooperation between financial regulatory authorities in both countries. This was recognised by the Australian and Japanese Prime Ministers in June 2008.

Issues such as the lack of common standards and complexity—or perceived complexity—of regulation and its application have also been identified as hurdles that have tended to deter Australian companies from embarking on establishing a presence in Japan.¹⁷ Discussions with Australian companies operating successfully in Japan during research for this report suggested that in some key growth sectors, such as health-care products and services, this could be particularly discouraging for companies—whether Japanese or foreign—with new or innovative products, which could be subjected to long and arduous testing processes before acceptance. As such, these regulations and their enforcement were seen as potentially affecting Japan’s ability to react nimbly to the increasing health-care challenges likely to result from the ageing of its population.

At the same time, it has long been suggested (see, for example, de Brouwer and Warren 2001) that both Australian and Japanese services providers have tended to be less than fully aware of the opportunities residing in each other’s market—whether due to stereotyping of each economy in the minds of companies in the other, or because other, seemingly brighter, opportunities are perceived to exist elsewhere.

Interlocutors consulted in the research process for this report suggested that this issue may have assumed greater prominence in recent years as an obstacle to further development of Australia–Japan commercial relations. The high-profile emergence of China and India, in particular, but also increasingly other East Asian economies such as Vietnam, as growth centres, has, not unnaturally, acted as a magnet for the attention of both Australian and Japanese business in a way that each other’s economies have not.

Australian companies established successfully in Japan view these developments with a degree of bemusement. While conceding that Japan is not the place to go in search of overnight success, they point in particular to what they characterise as the greater certainty provided both by the more developed legal systems and business practices that Japan offers, and by the store set by Japanese partners on the development of long-term relationships, involving a level of trust seldom found in other markets. Australian companies cited examples such as that of a long-term Japanese customer paying in advance (on their own initiative) for large orders of agricultural produce when they became aware that the drought was causing financial problems for their Australian supplier, and of handshake deals that were honoured without question despite significant adverse price shifts between the shaking of hands and the signing of a contract.

Companies with a more global outlook reiterate, too, that the often tortuous process of developing a market for their products or services in Japan—arguably one of the most quality-conscious markets in the world—has proved enormously beneficial to their overall ability to produce and guarantee higher-quality product and to develop the flexibility to meet changing customer specifications. They frequently cited these results of expansion into Japan as having assisted them to sell into other developed country markets.

¹⁷ Japan does rank high according to the World Bank’s Doing Business project (<www.doingbusiness.org/economyrankings>), but this is heavily influenced by its rating as the easiest place to close a business, not to establish or operate one.

Box 4.10 Making it in Japan—the Australian way(s)

The relatively small proportion of the bilateral commercial relationship that is occupied by exports of Australian elaborately transformed manufactures and services to Japan should not obscure the fact that there are also many highly successful Australian manufacturing and services ventures there. Individuals' stories show that, while there are common themes in these success stories—notably the need to approach dealings with Japan as a long-haul venture, and work on building relationships accordingly—there are also many different paths to success. For example:

- Ansell Healthcare, the Australian global market leader in barrier protective solutions (hand and arm protective solutions, medical gloves and condoms), has had a physical presence in Japan for over 20 years. In addition to the commitment to the Japanese market demonstrated by establishing an office in Tokyo, Ansell cites its willingness to listen to customers and attend in detail to their needs, including by modifying products and significantly improving quality control as a key factor in the success of its Japanese operation. This patient approach has had spin-offs elsewhere: 'As a result of making these improvements for the Japanese market, we now have products that are able to be sold into any market in the world'.
- Entrepreneur Terrie Lloyd first visited Japan in 1983 as an English teacher under the JET (Japan Exchange and Teaching) program, and has been there almost ever since. Starting small, he is now the Chief Executive of J@pan Inc and three other companies that work together under the banner of Japan Concierge, providing information technology, human resources, accounting, corporate governance, marketing, and management support for foreign companies entering Japan. More recently, the group has also started working with Japanese technology firms wanting to establish overseas markets. Terrie believes many Australian small businesses are put off trying to do business in Japan: 'There are many Australians already operating in Japan (myself included) who are more than willing to provide help and advice to others who want to come here. Too many of these companies feel they are alone and that it's all too much. They need to reach out to those of us who are here and know how good this market is, and how possible it really is to get up and running in business here with a bit of hard work.'
- Melanie Brock, founder and Managing Director of Agenda, a company focused on consulting, importing and distributing products from hand-selected high-end gourmet food and beverage companies from Australia, the United Kingdom, the United States and Europe. A former professional interpreter, Melanie has parlayed her strong language skills, love of Japan and network of high-end clients into a successful business representing some 25 boutique producers in a highly lucrative market.

Common to most Australians operating successfully in Japan is significant knowledge of the country and its language. But some find other ways into the market, choosing to source specific expertise in Japan from elsewhere. For example, BSD Robotics, an Australian-based company involved in the design, manufacture and supply of high-technology laboratory instruments, and the associated software, has been selling into Japan since 1998. BSD sought to attract a supplier of complementary equipment, technologies or services, or an organisation wishing to pursue an increase in its market share, to be its distributor in Japan. BSD director Allan Morrison emphasises the importance of long-term relationships for 'building a knowledge (marketing and technical aspects) base ... and trust'. He also advocates active participation in trade shows around the world, including Japan.

Micropace, an Australian small business specialising in sophisticated electro-physiological cardiac stimulators, has entered the Japanese market in a more roundabout way. Having established itself as the supplier of the leading electro-physiological cardiac stimulator in the United States, it has now started to export to Japan, using links between its US distributor and a Japanese importer to navigate Japan's medical clearance procedures. Micropace Managing Director Michael Cejnar comments: 'The Japanese market for medical equipment was previously very difficult to crack, although there was a high price premium for those patient enough to do so. The premium has gone down now, but the market is much more accessible than it used to be.'

Overcoming distance

Implicit in much of the above is that any 'new complementarities' that might arise, especially in the services sector, are likely to be less obvious and more nuanced in nature than the 'raw materials for manufactured products' complementarity that has underpinned the merchandise trading relationship to date; and, being less obvious, they are likely to require more work on both sides both to identify and to pursue. This is because these new complementarities are likely to be in areas where distance is a greater factor, and the relevant dimensions will not be the lack of geographic proximity. Some of these dimensions (in areas such as regulation and enforcement) can be addressed directly by governments. For example, Japanese authorities have reformed accounting standards to align them more closely with those in other jurisdictions. Others can only be addressed indirectly by governments (supporting increased people-to-people contact through scholarships and similar programs, for example) or not at all (changing cultural values and norms).

Governments can make a real difference in the development and implementation of regulation, as the vast majority of regulations are administered by government. Recognising that these are impediments is the first step; altering them is the second. One important vehicle for both identifying impediments and taking appropriate action will be the free trade agreement under negotiation between Australia and Japan.

Ensuring that the skills exist on both sides to take advantage of opportunities to develop 'new complementarities' will be critical if the relationship is to move further into these areas. In that regard, a crucial role—and one that needs to be continued and nurtured—must be played by education.

It appears that in this area, too, the rise of other major economies is having an impact. Australia has traditionally been quite well placed, relative to competition in the Japanese market from other developed countries, for availability of Japanese language skills; but the signs (see Box 2.3) are that this important resource is likely to be eroded in coming years, at least in relative terms. Japanese interest in studying in Australia also appears to be waning, even as Australia's provision of international education is expanding rapidly. If on-the-ground knowledge of each other's economy is likely to be crucial to identifying and taking up new opportunities for mutual benefit, this is an area that needs to be addressed urgently. The Japanese Government's decision, announced in June 2008, to create a young business persons program which will bring 50 young Australians to Japan each year, is an example of how governments can contribute to the building of closer links.

Box 4.11 New opportunities in education

While the numbers of Australian and Japanese students studying in Japan and Australia (respectively) are fairly static, new opportunities are being developed. One is the cooperation at the Crows Nest (Sydney) College between the Technical and Further Education (TAFE) NSW Northern Sydney Institute (NSI) and the Global Career Academy (GCA), a private company, to capitalise on the high-quality vocational and technical training available in Australia. (In Japan, vocational training is limited as there are no government-funded institutions; while there are a small number of private institutions, many companies rely on in-house training.)

This initiative is a powerful example of the inter-relationship between people-to-people exchanges and commercial relations. The driving idea for GCA's founder, Soichiro Fukutake (who is also Chairman and CEO of the Benesse Corporation in Japan), is that the acquisition of English language competence and a focus on vocational skills will enable young Japanese to compete and succeed in the global marketplace, and that TAFE is the best place to pursue this. NSI provides English language and vocational programs and GCA provides support services starting from the students' preparation period before leaving Japan and throughout their English and vocational training at TAFE.

This program encourages Japanese young people to rethink how they can embark on a career in the global marketplace and to question the traditional pathway from school through university to employment and be open to other avenues and opportunities.

Governments can also play a crucial role through their cooperation in other areas such as research. While the cooperation noted earlier on climate change issues is echoed in some other areas, more active approaches by other countries—which use a considerable proportion of the available capacity for joint research—can reinforce pre-existing perceptions that there might be only limited benefits from programs of cooperation between Australia and Japan.

Box 4.12 Cooperation on science and technology

One area where the cooperative arrangements between Australia and Japan have been overtaken by dealings with others is in science and technology research and development. In terms of the number of joint projects, Japan ranks seventh among the countries that the CSIRO, the Australian Government's R&D organisation, works with. For many years it ranked second or third, behind one or both of the United States and the United Kingdom, but has been overtaken, in particular, by the rapid increase in the number of joint projects with China. There are several factors behind this: one is the separate funding available for projects with China under the Australian Government's International Science Linkages Program. Another is the recognition given by Chinese universities to research undertaken under Australian joint supervision at the CSIRO towards a PhD degree back in China. This has led to a substantial number of Chinese researchers working at the CSIRO compared with a handful of Japanese counterparts. No such arrangement exists for doctoral research in Japanese universities, where there is less imperative to study overseas and where the preferred choice for overseas research is the United States. The number of joint CSIRO–Japan publications has also declined over the years, reflecting the decline in the number of joint cooperative activities.

Thinking beyond 'bilateral' relations

As noted above, both Australia and Japan, as developed economies in the Asia-Pacific region, are increasingly engaging with the rapidly emerging countries in the region. Both Australian and Japanese business could arguably benefit from leveraging their existing engagement and cooperation with each other to exploit opportunities in third-country markets.

Of particular relevance in this regard is the emergence of cross-border production networks, in which Japanese companies have been key players. As a result of these new patterns of trade, simple bilateral flows are becoming less relevant as an indicator of the economic interactions of trading partners.

Production networks essentially represent the natural progression of the economic theory of comparative advantage, in which each producer increasingly specialises in what it does best relative to others, so that production of individual items is 'unbundled' into a number of separate processes often performed geographically remotely from each other (Baldwin 2006b). As such, trade liberalisation, through measures such as tariff reduction, has been a major catalyst; international networks are most prevalent in industries such as electronics, where protection is lowest. But another factor in the spread of production networks has been the rapid improvement in the efficiency of enabling services, such as transportation, communications and logistics—services in which Australia has significant capabilities (Donald 2008).

Australia and Japan stand to benefit from cooperation in relation to these developments at two levels. At the policy or intergovernmental level, the impact of the conclusion of the Australia–Japan Free Trade Agreement currently under negotiation—as the first such agreement between major developed economies in the region—is potentially of real significance in the context of the ongoing emergence of production networks.

There is a significant literature on the interaction between free trade agreements and the new trading patterns emerging both within the Asia-Pacific region and globally (see, for example, Baldwin 2006a). Among the key findings of much of this literature is that, while they are generally liberalising in nature, free trade agreements differ from multilateral liberalisation efforts in that they may also be distorting of broad patterns of trade if they tend to *divert* rather than create trade by favouring less efficient producers over more efficient producers. Additionally, there are well-known concerns about the potential for a 'noodle bowl' effect, in which a multiplicity of different provisions between different countries (especially in relation to rules of origin) acts to complicate, rather than simplify, trade.

As two of the major developed economies on the western side of the Pacific, the shape of any arrangement between Australia and Japan stands to be highly influential in the dynamics of negotiations between other major economies. Additionally, Australia and Japan are currently undertaking negotiations with a range of other countries or groups in the region. The extent to which there is effective consistency or otherwise between their respective agreements could have a significant impact on the future workability of trade in the region.

At the business level, the increasing internationalisation of both Japanese and Australian companies, and their involvement in production networks and international supply chains, could open up new opportunities which, we would argue, should lead to the recognition that the Australia-Japan relationship extends beyond the bilateral trade and investment flows. As the case of wool suggests, the shifting of Japanese productive capacity offshore in the region has the potential to drag with it flows of raw materials from Australia previously used for production in Japan. Use of their existing relationships with Japanese buyers to open new avenues of trade could be symbolic of a shift in thinking in Australian export strategy away from the purely 'bilateral' towards a regional perspective.

Services are likely to be important in this context too, both for their role as the 'glue' that binds existing manufacturing production networks together, and because of the increasing trend for the production of services to be networked. As Japanese firms play their part in driving the ongoing trend towards manufacturing production networks, opportunities will arise for Australian services providers in a range of markets well beyond Japan to participate in the activity generated.

It remains to be seen what the precise division of roles will be in services networks as they develop. Typically, the fragmentation of roles that occurs in manufacturing networks is characterised by the specialised production of high value-added components in those economies where labour skills and costs are higher, with final assembly taking place where labour costs the least—predominantly China, but also increasingly countries such as Vietnam. In the case of services, different patterns may apply and, as two of the major developed economies in the region, Australia and Japan, with their large and relatively sophisticated services sectors, are likely to have a major role in the coordination of these networks.

Conclusions and implications

The change in the ranking of the Australia–Japan trade relationship serves as a valuable stimulus for those on both sides to take stock, and to ponder future directions. This report has sought to place such consideration into context, and to raise issues that might be expected to shape the relationship into the future.

The key conclusion is that there will be a need for perspective and realism in viewing and presenting the importance of the Australia–Japan commercial relationship into the future. Existing complementarities will continue to ensure the relationship remains one of Australia’s top three commercial relationships in absolute size far into the future, even if commodity prices were to fall significantly from current levels.

The rapid emergence of China, India and other developing economies in the region is likely to mean that the *relative* importance of the direct relationship to overall Australian and Japanese trade and investment patterns will continue to decline. In the terms of the gravity model used to assess services trade for this chapter, distance remaining equal, objects of greater mass (economic size) will tend to demonstrate more attraction. Governments will need to resist the temptation to see an inevitable decline in the *relative* size of the direct trading relationship as an indication of failure or lack of future potential. It will be crucial, in this context, in assessing the importance of the relationship to both countries, to focus on its size in absolute terms, rather than on fluctuating relativities between it and other trading relationships.

If it is governments that wish for strong commercial relationships between countries that share many other factors in common, it is companies that build them. Robust bilateral relations in general do have spin-offs for companies—for example, by creating favourable generic perceptions about national capabilities that make market entry easier, or by creating a critical mass of support networks that facilitate operating in an otherwise alien environment. But they do not, of themselves, form a rationale for commercial decisions. Companies can only properly make those decisions based on a hard-edged assessment of their own commercial interests. The task for governments in pursuing *their* goals is to maximise the chances that businesses will see advantages for themselves in behaving in ways that also further government objectives.

The first key to this is ensuring that businesses are able to do business. The free trade agreement negotiations may provide a useful stepping stone. It will be important that these negotiations identify the real impediments to bilateral trade and investment and do something about them. Identifying such impediments will mean not only talking to those companies that are already doing business bilaterally, but also to those that are not, to find out why, and what would make them change their minds. Publicity for the changes that result from the free trade agreement will also be crucial, and it will be important that such publicity occurs at a time that maximises the head-turning effect that the signing of the agreement should have.

The second key will be ensuring that businesses become aware of the opportunities that exist within the market, and that it is in fact possible for them to act upon them. This involves more than the provision of information—though that, too, is important. As this report has suggested, it can mean looking below the flood of information at the aggregate level to identify individual sectors where growth

may be occurring, and individual opportunities. It also involves understanding the ways in which collaboration and business relationships develop in the new fields in which there is potential for the relationship to grow, and encouraging and facilitating the type of in-depth contact that is necessary for companies in both countries to identify and exploit such opportunities.

Acting on opportunities that arise within services sectors, where, as we have seen, cultural and linguistic distance can be a particularly relevant factor, requires people with the necessary cross-cultural skills. Both countries have a reasonably solid foundation in this regard, with study of the language of the other at a relatively high level in each. However, it needs to be recognised that the skills and relationships required to develop and take advantage of full-blown commercial opportunities are relatively time-consuming to acquire. More opportunities need to be made for Australians to hone their Japanese language and cultural skills in Japan, and for Japanese people to gain experience of Australia through education, living and work placements.

It will be through such efforts to overcome the many dimensions of distance that new complementarities can emerge alongside the traditional ones that will continue to drive so much of the Australia-Japan commercial relationship.

Acknowledgments

This report was written by the Economic Analytical Unit, Department of Foreign Affairs and Trade (DFAT). The principal authors were Richard Andrews and David Morgan. An earlier draft was prepared by Joanne Frederiksen, and Stephen Foster. Bruce Donald and Tanzila Fatema provided substantial assistance at various stages of the project.

The Economic Analytical Unit would like to thank the following people, who held the positions listed at the time they were consulted, for their contributions during the preparation of this report, noting that while their opinions and assistance were invaluable and gratefully received, any errors or oddities resulting from their having been consulted are solely the responsibility of the authors:

In Canberra and Sydney, Sue Begley, Frank Bingham and Karen Medson (Market Information and Analysis Unit, DFAT); Judith Laffan (Agrifood Research Unit, Office of Trade Negotiations, DFAT); James Baxter, Michael Growder and Ric Wells (Japan Free Trade Agreement Task Force, DFAT); Tom Dowling, Warren King, Peter Nagy and Daniel Sloper (North Asia Division, DFAT); Hian Yap and Patrick Stortz (Austrade); John Barbour and Graeme Rankin (Department of Education, Employment and Workplace Relations (DEEWR)); Bill Wise (Office of National Assessments); Ivailo Arsov, Chris Becker, Natasha Cassidy and Joshua Kirkwood (Reserve Bank of Australia); Ta Yan Leong (CSIRO); and Richard Beere (Tourism Australia).

In the Australian Embassy, Tokyo, Ambassador Murray McLean, Alison Airey, James Bloomfield, Joanne Loundes, Allan McKinnon and Bruce Miller (DFAT); Bill Withers (Department of Agriculture, Fisheries and Forestry); Derek Brown and Dr Chris Locke (Department of Resources, Energy and Tourism), Michelle Allan (DEEWR), Bruce Paine (Treasury); and Phil Ingram, Liz Masamune and Catherine Taylor (Austrade); and in other Australian missions in Japan, Michael Clifton, Consul-General in Osaka and Jarrod Waring, Consul-General in Fukuoka, and the staff of the two Consulates-General.

In Australia, Michael Carapiet (Executive Director and Joint Head of Corporate Finance, Investment Banking, Macquarie Bank Limited); Michael Cejnar (Managing Director, Micropace); Professors Jenny Corbett, Rikki Kersten and Warwick McKibbin (Australian National University); Sir Rod Eddington (Chairman, Australia Japan Business Co-operation Committee (AJBCC)); James Fridley (Research Officer—Australian and South Pacific Economies, Japan External Trade Organization); Masao Fujita (Managing Director and CEO, NTT Communications Group, NTT Australia Pty Ltd); Paul Gallagher (Executive Director, AJBCC); Associate Professor Aurelia George Mulgan (Australian Defence Force Academy, University of New South Wales); Kevin Harris and Stephen McManus (respectively Director and International Business Manager, TAFE NSW Northern Sydney Institute); Cassandra McCarthy and Peter Morris (respectively Director Policy and International and Director Economics Policy, Australian Coal Association); Huw McKay (Senior International Economist, Westpac Economic Research); Hugh Morgan AC (immediate past Chairman, AJBCC); Allan Morrison (General Manager and Managing Director, BSD Robotics); Manuel Panagiotopolous (Principal, Australian and Japanese Economic Intelligence); and Ian Williams (Partner, Blake Dawson Waldron Lawyers)

In Japan, Teruo Aoyagi (Managing Director, International Bureau) and colleagues at the Kansai Economic Federation; Melanie Brock (Managing Director, Agenda);

Kyoji Fukao (Professor, Institute of Economic Research and Research Director of the Center for Economic Institutions, Hitotsubashi University); Bill Hall (President, Synovate Healthcare Japan Ltd); Yasukazu Hamada (Member of the House of Representatives, Liberal Democratic Party); Tomoko Hayashi (Director for International Economic Affairs) and colleagues at the Cabinet Office, Government of Japan; Akira Hirai (Director-General) and colleagues at the Kyushu Economic Federation; Takumi Hirai (Institute for Advanced Industry Development); Masayoshi Honma (Professor of Agricultural and Resource Economics, Tokyo University); Motoshige Itoh (Professor of Economics, University of Tokyo); Samantha Jamieson (Regional Manager, Japan, Meat and Livestock Australia); Banri Kaieda (former member of the House of Representatives); Shigeharu Kato (Director for Science and Technology Policy, Bureau of Science and Technology Policy, Cabinet Office); Professor Fukunari Kimura, Kazu Hayakawa and Arata Kuno (Keio University); Kazuyuki Kinabara (Director, International Economic Affairs Bureau I, Nippon Keidanren); Fumihiko Kinnou (Director, International Business and Tourism Promotion Division, Commerce and Industry Department) and colleagues in the Fukuoka Prefectural Government; Professor Shinichi Kobayashi (Nippon University); Akira Kojima (Chairman, Japan Center for Economic Research); Taro Kono (Member of the House of Representatives); Yuki Koshida (Leader, Fuel Planning Group) and colleagues in the Kansai Electric Power Co., Inc.; Professor Kazuyoshi Kurokawa (Faculty of Economics, Hosei University); Terrie Lloyd (J@pan Inc); Sawako Maruyama (Researcher, Osaka Prefectural Institute for Advanced Industry Development); Harufumi Mochizuki (Director-General, Agency for Natural Resources and Energy, Ministry of Economy, Trade and Industry); Roger Moore (Senior Vice-President, Chairman and Representative Director, Novo Nordisk Pharma Ltd); Ryuichi Murata (Deputy President) and colleagues in the Bank of Tokyo-Mitsubishi UFJ; Yasuhiko Ota (Senior Editorial Writer, Nihon Keizai Shimbun); Greg Plemmons (General Manager) and colleagues in Ansell Healthcare Japan Co. Ltd and Ansell-Sumisho Ltd; Masayo Shigetome (International Relations Division) and colleagues in the Osaka Prefectural Government; Matsuo Shimojima (Executive Director, International Division) and colleagues in the Tokyo Chamber of Commerce and Industry; Koji Shinmachi (Chairman) and colleagues in the Japan Association of Travel Agents; Katsuaki Shiraishi (Economic News Editor, The Nishi-Nippon Newspaper); Anthony Sorrenti (Executive Director, International Bankers Association); Greg Story (General Manager, Shinsei Bank); Katsuhiko Suetsugu (Secretary General, Asia-Pacific Energy Forum); Naoki Tabata (former Director, World Bank and Bank of Japan); Hiroshi Takaku AO (Takaku Associates); Kazuhiro Tamenaga (General Manager) and colleagues in The Bank of Fukuoka Ltd; Naoki Tanaka (President, 21st Century Public Institute); Professor Terada (Waseda University); and Dr Tsutomu Toichi (Senior Managing Director) and colleagues in the Institute of Energy Economics, Japan.

The Economic Analytical Unit would also like to thank the following companies for their cooperation in providing information for this report:

G&K O'Connor Pty Ltd, Hakubaku Australia Pty Ltd, Itochu Australia Ltd, Ito En Australia Pty Ltd, Itoham Foods (Australia) Pty Ltd, Japan Food Corporation (Australia) Pty Ltd, Kirin Australia Pty Ltd, Marubeni Australia Ltd, Mazda Australia Pty Ltd, Meiji-Dairy Australasia Pty Ltd, Mitsui & Co. (Australia) Ltd, Mitsubishi Australia Ltd, Mitsubishi Motors Australia Ltd, Nippon Meat Packers Australia Pty Ltd, Saizeriya Australia Pty Ltd, Sojitz Australia Ltd, Sumikin Bussan Oceania Pty Ltd, Sumitomo Australia Ltd, Suntory Australia Pty Ltd, Tasman Group Services Pty Ltd, Teys Bros, Toyota Tsusho (Australasia) Pty Ltd, Yakult Australia Pty Ltd, Yoshinoya Australia Pty Ltd, and Zenchiku (Australia) Pty Ltd.

References

- ABS (Australian Bureau of Statistics) 2004, *Australian Outward Foreign Affiliates Trade, 2002-03*, cat. no. 5495.0, ABS, Canberra.
- 2008a, *Australian National Accounts: National Income, Expenditure and Product, Jun 2008*, cat. no. 5206.0, ABS, Canberra.
- 2008b, *Balance of Payments and International Investment Position, Australia, Jun 2008*, cat. no. 5302.0, ABS, Canberra.
- 2008c, *Balance of Payments, Australia, 1992-93*, cat. no. 5303.0, ABS, Canberra.
- 2008d, *Balance of Payments, Australia: Supplementary Country Statistics, 2004*, cat. no. 5338.0, ABS, Canberra.
- 2008e, *International Investment Position, Australia: Supplementary Statistics, 2007*, cat. no. 5352.0, ABS, Canberra.
- 2008f, *International Trade in Goods and Services, Australia, Sep 2008*, cat. no. 5368.0, ABS, Canberra.
- 2008g, *Overseas Arrivals and Departures, Australia, Sep 2008*, cat. no. 3401.0, ABS, Canberra.
- AJRC (Australia-Japan Research Centre) 2003, *Review of Wool Trade Relations with Japan*, Report by the Australia-Japan Research Centre (ANU) for Australian Wool Innovation Limited, 24 June.
- Aminian, N., Fung, K.C. and Iizaka, H. 2007, 'Foreign direct investment, intra-regional trade and production sharing in East Asia', *RIETI Discussion Paper Series, 07-E-064*, available at <www.rieti.go.jp/en/publications/summary/07120003.html>.
- Ando, M. and Kimura, F. 2003, 'The formation of international production and distribution networks in East Asia', *NBER Working Paper*, no. 10167, December.
- 2007, 'Can offshoring create domestic jobs? Evidence from Japanese data', *CEPR Policy Insight*, no. 16, December.
- 2008, 'Fragmentation in East Asia: further evidence', *KUMQRP Discussion Paper Series, DP2006-23*.
- Australian Financial Review 2007, 'Japanese mutual funds come to Australia', *Australian Financial Review*, 11 July.
- Baldwin, R. 2006a, 'Managing the noodle bowl: the fragility of East Asian regionalism', *Centre for Economic Policy Research Discussion Paper*, no. 5561.
- 2006b, *Globalisation: The great unbundling(s)*, available at <http://hei.unige.ch/~baldwin/PapersBooks/Unbundling_Baldwin_06-09-20.pdf>.
- Bank of Japan 2008, 'International Investment Position of Japan 1996-2007', Bank of Japan, Tokyo, available at <www.boj.or.jp/en/theme/research/stat/bop/bop/index.htm#iip>.
- Batini, N., Callen, T. and McKibbin, W.J. 2005, 'The global impact of demographic change', *Working Papers in International Economics*, no. 5.05, June, Lowy Institute for International Policy.
- Battersby, B. 2006, 'Does distance matter? The effect of geographic isolation on productivity levels', *Treasury Working Paper*, 2006-03, April.
- Centre for International Economics 2008, *Benefits of Trade Liberalisation and Foreign Investment*, report prepared for the Department of Foreign Affairs and Trade, Canberra.

- Commonwealth of Australia 2007, *Intergenerational Report 2007*, available at <www.treasury.gov.au/igr>.
- Corbett, J., Kimura, F., Hayakawa, K. and Kuno, A. 2008, 'A note on results', DFAT-ANU Services Trade Project research, January, available at <www.dfat.gov.au/eau>.
- Davis, G. and Rahman, J. 2006, 'Perspectives on Australia's productivity prospects', *Treasury Working Paper*, 2006-04, September.
- DCC (Department of Climate Change) 2008, 'Australia's agriculture—impacts of climate change', available at <www.climatechange.gov.au/impacts/agriculture.html>.
- de Brouwer, G. and Warren, T. 2001, *Strengthening Australia–Japan Economic Relations*, report prepared for the Department of Foreign Affairs and Trade, April.
- DFAT (Department of Foreign Affairs and Trade) forthcoming, *Agrifood Globalisation and Asia Series, Vol. V: Asian Agrifood Supply Trends and Asian Agrifood Companies*, DFAT, Canberra.
- Dolman, B. 2008, 'Migration, trade and investment', *Productivity Commission Staff Working Paper*, February.
- Dolman, B., Parham, D. and Zheng, S. 2007, 'Can Australia match US productivity performance?', *Productivity Commission Staff Working Paper*, March.
- Donald, B. 2008, 'Emerging patterns of Australia's linkages with East Asia: a place in production networks?', paper presented to the workshop on Emerging Trends and Patterns of Trade and Investment in Asia, February.
- Drysdale, P. 2006, 'Did the NARA Treaty make a difference?' *Australian Journal of International Affairs*, vol. 60, no. 4, pp. 490-505.
- The Economist 2008, 'Capital thinking', *The Economist*, July 24.
- Enkvist, P.-A., Nauclér, T. and Riese, J. 2008, 'What countries can do about cutting carbon emissions', *McKinsey Quarterly*, no. 2, April, pp. 35-43.
- Fairhead, L., Curtotti, R., Rumley, C. and Mélanie, J. 2006, *Australian Coal Exports: Outlook to 2025 and the role of infrastructure*, ABARE Research Report 06.15, Australian Bureau of Agricultural and Resource Economics, Canberra.
- Farrell, D. and Greenberg, E. 2005, 'The economic impact of an aging Japan', *McKinsey Quarterly*, May.
- Fujita, M. and Hamaguchi, N. 2006, 'The coming age of China-plus-one: the Japanese perspective on East Asian production networks', reference paper for the World Bank-IPS Research Project on the Rise of China and India, available at <http://siteresources.worldbank.org/INTCHIINDGLOECO/Resources/Fujita_Hamaguchi_draft2_ACCEPT_ALL.doc>.
- Garnaut, R. 1989, *Australia and the Northeast Asian Ascendancy*, Australian Government Publishing Service, Canberra.
- 2007, 'Will climate change bring an end to the Platinum Age?', S.T. Lee Lecture, Australian National University, Canberra, 29 November.
- 2008, *The Garnaut Climate Change Review*, Cambridge University Press, Melbourne.
- Garnaut, R. and Song, L. (eds) 2007, *China: Linking markets for growth*, Asia Pacific Press, Australian National University, Canberra.
- Ghemawat, P. 2007, *Redefining Global Strategy: Crossing borders in a world where differences still matter*, Harvard Business School Press, Boston.
- Gill, I. and Kharas, H. 2007, *An East Asian Renaissance: Ideas for economic growth*, World Bank, Washington DC.

- Goldman Sachs 2007, *BRICs and Beyond*, available at <<http://www2.goldmansachs.com/ideas/brics/BRICs-and-Beyond.html>>.
- Hayakawa, K. 2008, 'The choice of transport mode: evidence from Japanese exports to East Asia', *IDE Discussion Paper*, no. 155, Institute of Developing Economies, Japan External Trade Organization.
- Hayakawa, K. and Kimura, F. 2008, 'The effect of exchange rate volatility on international trade: the implication for production network in East Asia', *IDE Discussion Paper*, no. 156, Institute of Developing Economies, Japan External Trade Organization.
- Hiratsuka, D. 2007, 'Escaping from FTA trap and spaghetti bowl problem in East Asia', in Institute of Developing Economies, Japan External Trade Organization, *Economics of East Asian Economic Integration: Midterm report*, available at <www.ide.go.jp/Japanese/Publish/Report/2007_01_10.html>.
- 2008, 'Production fragmentation and networks in East Asia characterized by vertical specialization', in D. Hiratsuka and Y. Uchida (eds), *Vertical Specialization and Economic Integration in East Asia*, Institute of Developing Economies, Japan External Trade Organization, Chosakenkyu-Hokokusho.
- Hoekman, B. and Mattoo, A. 2008, 'Services trade and growth', *World Bank Policy Research Working Paper*, no. 4461.
- Hutchinson, D. and Nicholas, S. 1994, 'Japanese multinationals in Australian manufacturing', *Pacific Economic Papers*, no. 231, May.
- Iinuma, Y. 2008, 'Economic outlook', *The Oriental Economist*, vol. 76, no. 8, pp. 7-8.
- IEEJ (Institute of Energy Economics, Japan) 2006, *Japan Long-Term Energy Outlook*, IEEJ, Tokyo, April.
- Ito, B., Tomiura, E. and Wakasugi, R. 2007, 'Dissecting offshore outsourcing and R&D: a survey of Japanese manufacturing firms', *REITI Discussion Paper Series*, 07-E-060, November 18.
- JETRO (Japan External Trade Organization) 2007, *2007 White Paper on International Trade and Foreign Direct Investment: Increasing utilization of Asian FTAs and growth strategies for Japanese companies*, JETRO, Tokyo.
- JF and AJRC (Japan Foundation and Australia-Japan Research Centre) 2004, *Directory of Japanese Studies in Australia and New Zealand*, JF and AJRC, Tokyo and Canberra.
- Kadonaga, S., Kanzler, L. and Yokoyama, Y. 2008, 'Addressing Japan's health care cost challenge', *McKinsey Quarterly*, May.
- Kanekiyo, K. 2007, 'Japanese experience toward energy efficient economy', Institute of Energy Economics, Japan, November, available at <<http://eneken.iej.or.jp/en/data/pdf/408.pdf>>.
- Katz, R. 2008, 'Just what Japan didn't need', *The Oriental Economist*, vol. 76, no. 8, pp. 1-2.
- Kimura, F. 2005, 'The globalisation of production networks: a view from Asia', paper presented to the OECD workshop on The Globalisation of Production: Impacts on Employment, Productivity, and Economic Growth, November.
- Kingwell, R. 2006, 'Climate change in Australia: agricultural impacts and adaptation', *Australian Agribusiness Review*, vol. 14, paper 1.
- Kiyota, K. 2005, 'The services content of Japanese trade', *Japan and the World Economy*, vol. 17, no. 3, pp. 261-92.
- Kondo, M.J., Lewis, W.W., Palmade, V. and Yokoyama, Y. 2000, 'Reviving Japan's economy', *McKinsey Quarterly*, no. 4, pp. 19-37.

- LaFeber, W. 1997, *The Clash: A history of US-Japan relations*, W.W. Norton, New York.
- Lefort, C. 2008, 'Australian banks pile into samurai bond market', Reuters, 15 April.
- McKissack, A., Chang, J., Ewing, R. and Rahman, J. 2008, 'Structural effects of a sustained rise in the terms of trade', *Treasury Working Paper*, 2008-01, July.
- MAFF (Ministry of Agriculture, Forestry and Fisheries) 2008, *Annual Report on Food, Agriculture, and Rural Area in Japan (FY 2007)*, MAFF, Tokyo.
- Mayne, S. 2008, 'Foreign-owned major resource projects', *The Mayne Report*, available at <www.maynereport.com/articles/2007/07/17-2040-8377.html>.
- METI (Ministry of Economy, Trade and Industry) 2006, *New National Energy Strategy (Digest)*, METI, Tokyo, May.
- 2008, *FY2007 Annual Energy Report*, METI, Tokyo.
- MINEC Pty Ltd 2007, 'Creating competitive advantage for Australian coal exports—overcoming coal chain capacity constraints', AustCoal Consulting Alliance, Briefing No. 4.
- Ninomiya, Y. and Jung, T.Y. 2003, 'Intensity target and Japan's challenge', Institute for Global Environmental Strategies, Japan, 20 October, available at <[www.ccap.org/Presentations/IGES-Japan per cent20Carbon per cent20Intensity-October2003.pdf](http://www.ccap.org/Presentations/IGES-Japan%20Carbon%20Intensity-October2003.pdf)>.
- OECD (Organisation for Economic Co-operation and Development) 2006, *Economic Survey: Australia*, OECD, Paris.
- 2007, *OECD Science, Technology and Industry Scoreboard 2007*, OECD, Paris.
- 2008, *Economic Survey: Japan*, OECD, Paris.
- The Oriental Economist 2008, 'Economy watch', *The Oriental Economist*, vol. 76, no. 9, pp. 5-6.
- Productivity Commission 2008, *Trade and Assistance Review 2006-07*, Annual Report Series, Productivity Commission, Canberra.
- Pokarier, C. 2006, 'Cross-border higher education in the Australia-Japan relationship', *Australian Journal of International Affairs*, vol. 60, no. 4, pp. 552-73.
- Prins, G. and Rayner, S. 2007, *The Wrong Trousers: Radically rethinking climate policy*, available at <www.martininstitute.ox.ac.uk/NR/rdonlyres/06C527B7-D0DA-4D57-A38C-EDD6C5863112/0/TheWrongTrousers.pdf>.
- Rix, A. 1986, *Coming to Terms: The politics of Australia's trade with Japan 1945-1957*, Allen and Unwin, Sydney.
- Roberts, I., Warr, S. and Rodriguez, G. 2006, 'Japanese agriculture: forces driving change', *ABARE Research Report*, 06.24, prepared for the Australian Government Department of Agriculture, Fisheries and Forestry, Canberra, December.
- Suehiro, S. 2007, 'Energy intensity of GDP as an index of energy conservation', Institute of Energy Economics, Japan, August, available at <<http://eneken.ieej.or.jp/en/data/pdf/400.pdf>>.
- Special Board 2005a, *A New Era of Dynamism*, Report of the Special Board of Inquiry for Examining 'Japan's 21st Century Vision', April, available at <www.keizai-shimon.go.jp/english/publication/pdf/050419visionsummary_fulltext.pdf>.
- 2005b, *Toward the Realization of a Dynamic, Stable Society*, Report of the Economic and Fiscal Prospects Working Group of the Special Board of Inquiry for Examining 'Japan's 21st Century Vision', April, available at <www.keizai-shimon.go.jp/english/publication/pdf/050419visionprospects_report.pdf>.

- Tokyo Gas 2002, 'Participation in Bayu-Undan Project and procurement of Darwin LNG', available at <www.tokyo-gas.co.jp/Press_e/20020312-1e.pdf>.
- Urata, S. 2006, 'The creation of regional production network in Asia-Pacific: the case of Japanese multinational corporations', paper prepared for PAFTAD 31, June.
- Watson, K., Beere, R., Crabb, N., Gambino, P., Hughes, C., Kelly, P. and Lewis, S. 2006, *Embracing Change*, Report to the Minister for Small Business and Tourism by the Action Plan for Japanese Tourism Committee, Tourism Australia, Sydney.
- Woodside Petroleum Ltd 2008, *Annual Report 2007*, available at <www.woodside.com.au/Investors+and+Media/Annual+Reports>.
- World Trade Organization 2007a, 'Trade Policy Review: Japan', WT/TPR/S/175/Rev.1, 10 April.
- 2007b, 'Trade Policy Review: Australia', WT/TPR/S/178/Rev.1, 1 May.

List of boxes, figures and tables

Box 1.1	The evolution of Australia's wool trade with Japan	9
Box 1.2	The big picture	11
Box 1.3	Japan's role in developing Australia's resources and energy industries	12
Box 1.4	Agrifood investment closely linked to trade	13
Box 1.5	Australian tourism to Japan booms on the back of investment in Hokkaido	17
Box 1.6	Raising funds in Japan: uridashi and samurai bonds	18
Box 2.1	Some milestones in Australia–Japan commercial relations	35
Box 2.2	Australia at Aichi—Australia's Japan savvy	38
Box 2.3	The importance of education in breaking down distance barriers	39
Box 2.4	Why the 1957 Agreement on Commerce was so significant	44
Box 3.1	The end of Japan's high savings rate?	60
Box 3.2	What are regional production networks?	73
Box 3.3	Trade with Japanese companies but not with Japan	76
Box 3.4	The impact of trade agreements on regional trade and investment	78
Box 4.1	Energy security and infrastructure	90
Box 4.2	The demand for liquefied natural gas	92
Box 4.3	Using solar energy to increase the energy from natural gas	94
Box 4.4	Food security and food safety	95
Box 4.5	Adoption of Australian slaughterhouse technology assists Japanese meat industry	96
Box 4.6	Dairy industry reform in Australia	97
Box 4.7	Some of the reasons behind Australia–Japan tourism trends	99
Box 4.8	Services and production networks	101
Box 4.9	Financial services and portfolio investment flows	103
Box 4.10	Making it in Japan—the Australian way(s)	105
Box 4.11	New opportunities in education	107
Box 4.12	Cooperation on science and technology	108

Figure 1.1	Australia's total imports from and exports to Japan, and Australian GDP, 1955–56 to 2007–08	6
Figure 1.2	Australian corporate bond issuance in Japan, 1990–2008	18
Figure 1.3	Bonds issued in Japan as a share of total Australian bond issuance overseas	19
Figure 1.4	Australia's merchandise imports from Japan by major category, percentage share by value, 1989–2007	20
Figure 1.5	Japan's merchandise imports from Australia by major category, percentage share by value, 1975–2007	21

Figure 1.6	Japan's merchandise exports to the world by category, 1989–2007	22
Figure 1.7	Japan's merchandise imports from the world by category, 1989–2007	22
Figure 1.8	Australia's merchandise exports to the world by category, 1989–2007	23
Figure 1.9	Australia's merchandise exports to Japan by category, 1989–2007	23
Figure 1.10	Australia's exports of simply and elaborately transformed manufactures to Japan, 1989–2007	24
Figure 1.11	Australia's exports of simply and elaborately transformed manufactures to the world, 1989–2007	24
Figure 1.12	Australia's exports and imports of services, selected countries, 1999–2007	25
Figure 1.13	Australia's exports of services to Japan, 1999–2007	26
Figure 1.14	Total visitor arrivals from Japan (holiday, visiting friends and relatives, business, education, employment and other), 1991–2007	27
Figure 1.15	Australia's imports of services from Japan, 1999–2007	27
Figure 2.1	Total Year 12 enrolments in language courses in Australian schools, 1991–2006	39
Figure 2.2	International students in Japan, total and by source of funds, 1983–2007 (as of each May 1)	40
Figure 2.3	Numbers of students from Japan, China, India and Brazil studying in Australia (all sectors), 1997–2007	41
Figure 2.4	Japanese international student enrolments in Australia by sector, 2002–07	42
Figure 3.1	Japan's real GDP by sector, 1970–2005	56
Figure 3.2	Australia's real GDP by sector, 1970–2005	56
Figure 3.3	Per capita GDP in selected countries, 2006 (actual) and 2030 (projected)	57
Figure 3.4	Japan's population by age group, 1950–2050 (UN medium scenario)	58
Figure 3.5	Household savings rate for Japan, 1955–2006	60
Figure 3.6	Output per hour relative to the United States, 1950–2007, selected countries	61
Figure 3.7	GDP per capita as a proportion of US level, 1950–2007, selected countries	62
Figure 3.8	Contributions to GDP growth, OECD countries, 1995–2005, annual average growth in percentage points	64
Figure 3.9	Stock of Japanese inward foreign direct investment, 1996–2007 (end of calendar year)	65
Figure 3.10	Stock of total Japanese outward investment (direct, portfolio and other), 1996–2007 (end of calendar year)	66
Figure 3.11	Stock of total Japanese outward direct investment, 1996–2007 (end of calendar year)	66
Figure 3.12	Japan's net income from investment overseas and trade surplus, 1996–2007	67
Figure 3.13	Japan's exports to the world, country and regional shares, 1988–2007	68
Figure 3.14	Japan's imports from the world, country and regional shares, 1988–2007	69

Figure 3.15	Japan's global foreign direct investment stock, country and regional shares, 1996-2007	69
Figure 3.16	Japan's share of Australia's imports and exports of goods and services, 1955-56 to 2007-08	70
Figure 3.17	Number of plants (cumulative) established in East Asia by Japanese automotive and electrical machinery firms, 1975-2004	72
Figure 3.18	Stock of foreign direct investment by Japan in Asia (end of calendar year)	73
Figure 3.19	Australia's population by age group, 1950-2050 (UN medium scenario)	84
Figure 3.20	Terms of trade for Australia and Japan, 1960-2008 (quarterly)	85
Figure 4.1	Australia's exports of coal (steaming and metallurgical), 1998-2007	91
Figure 4.2	Annual milk yields and levels of industry support, Australia, 1990-2002	97

Table 1.1	Trade intensity indexes for goods and services trade between Australia and Japan	7
Table 1.2	Japan's exports per person in importing country, 2002 and 2007 (US\$)	8
Table 2.1	The generic, country-level CAGE framework for distance	34
Table 2.2	Complementarity (C), bias (B) and intensity (I) indexes for Japan's imports from Australia, 1913-2000	48
Table 2.3	Complementarity (C), bias (B) and intensity (I) indexes for Australia's imports from Japan, 1913-2000	48
Table 3.1	Australia's and Japan's imports from and exports to China, percentage share of total merchandise imports and exports, 1987-2007	68
Table 3.2	Number of affiliates of Japanese firms in Asian countries, 1990-2004	71
Table 3.3	Emissions of carbon dioxide per unit of GDP, 2005	80
Table 4.1	Publicly announced agreements for LNG with Japanese customers	92
Table 4.2	Asia-Pacific Partnership on Clean Development and Climate (AP6) projects involving Australia and Japan	93

Economic Analytical Unit publications

The EAU's website, <www.dfat.gov.au/eau>, provides access to recent reports, full publication catalogues and details of briefing papers, as well as executive summaries and tables of contents of earlier reports.

Hard copies of the reports can also be ordered through <www.dfat.gov.au/eau>.

India's Services Sector: Unlocking Opportunity

Published March 2007 (ISBN 978-1-24405-6), 133 pages

ASEAN: Building an Economic Community

Published July 2006 (ISBN 1 920959 89 0), 103 pages

Unlocking China's Services Sector

Published February 2006 (ISBN 1 920959 47 5), 113 pages

Education Without Borders: International Trade in Education

Published September 2005 (ISBN 1 920959 51 3), 69 pages

More Than Oil: Economic Developments in Bahrain, Kuwait, Oman, Qatar, and the United Arab Emirates

Published September 2005 (ISBN 1 920959 46 7), 95 pages

Australia and the United States: Trade and the Multinationals in a New Era

Published June 2005 (ISBN 1 920959 36 X), 85 pages

Malaysia: An Economy Transformed

Published February 2005 (ISBN 1 920959 25 4), 119 pages

Papua New Guinea: The Road Ahead

Published November 2004 (ISBN 1 920959 23 8), 172 pages

Solomon Islands: Rebuilding an Island Economy

Published July 2004 (ISBN 1 920959 08 4), 139 pages

South-South Trade: Winning from Liberalisation

Published June 2004 (ISBN 1-920959-07-6), 42 pages

Economic Aspects of Combating Terrorism in the Transport Sector

Published May 2004 (ISBN 1 920959 00 9), 52 pages

African Renewal: Business Opportunities in South Africa, Botswana, Uganda, Mozambique and Kenya

Published November 2003 (ISBN 0 646 42822 5), 135 pages

China's Industrial Rise: East Asia's Challenge

Published October 2003 (ISBN 0 9750627 4 3), 75 pages

Globalisation: Keeping the Gains

Published May 2003 (ISBN 0 646 42270 7), 103 pages

Connecting With Asia's Tech Future: ICT Export Opportunities

Published November 2002 (ISBN 0 642 50244 7), 191 pages

China Embraces the World Market

Published November 2002 (ISBN 0 642 50227 7), 200 pages

Changing Corporate Asia: What Business Needs to Know (2 parts)

Published March 2002 (ISBN 0 642 48780 4/0 642 48781 2/0 642 48779 0), 87 and 230 pages

- India: New Economy, Old Economy*
Published December 2001 (ISBN 0 642 56583), 172 pages
- Investing in Latin American Growth: Unlocking Opportunities in Brazil, Mexico, Argentina and Chile*
Published August 2001 (ISBN 0 642 51879 3), 294 pages
- Indonesia: Facing the Challenge*
Published December 2000 (ISBN 0 642 70501 1), 205 pages
- Accessing Middle East Growth: Business Opportunities in the Arabian Peninsula and Iran*
Published September 2000 (ISBN 0 642 47659 4), 160 pages
- Transforming Thailand: Choices for the New Millennium*
Published June 2000 (ISBN 0 642 70469 4), 216 pages
- Asia's Financial Markets: Capitalising on Reform*
Published November 1999 (ISBN 0 642 56561 9), 376 pages
- Korea Rebuilds: From Crisis to Opportunity*
Published May 1999 (ISBN 0 642 47624 1), 272 pages
- Asia's Infrastructure in the Crisis: Harnessing Private Enterprise*
Published December 1998 (ISBN 0 642 50149 1), 250 pages
- The Philippines: Beyond the Crisis*
Published May 1998 (ISBN 0 642 30521 8), 328 pages
- The New ASEANs: Vietnam, Burma, Cambodia and Laos*
Published June 1997 (ISBN 0642 27148 8), 380 pages
- A New Japan? Change in Asia's Megamarket*
Published June 1997 (ISBN 0 642 27131 3), 512 pages
- China Embraces the Market: Achievements, Constraints and Opportunities*
Published April 1997 (ISBN 0 642 26952 1), 448 pages
- Asia's Global Powers: China-Japan Relations in the 21st Century*
Published April 1996 (ISBN 0 642 24525 8), 158 pages
- Pacific Russia: Risks and Rewards*
Published April 1996 (ISBN 0 642 24521 5), 119 pages
- Iron and Steel in China and Australia*
Published November 1995 (ISBN 0 642 24404 9), 110 pages
- Growth Triangles of South East Asia*
Published November 1995 (ISBN 0 642 23571 6), 136 pages, only available online
- Overseas Chinese Business Networks in Asia*
Published August 1995 (ISBN 0 642 22960 0), 372 pages
- Subsistence to Supermarket: Food and Agricultural Transformation in South-East Asia*
Published August 1994 (ISBN 0 644 35093 8), 390 pages
- Expanding Horizons: Australia and Indonesia into the 21st Century*
Published June 1994 (ISBN 0 644 33514 9), 364 pages
- India's Economy at the Midnight Hour: Australia's India Strategy*
Published April 1994 (ISBN 0 644 33328 6), 260 pages

- ASEAN Free Trade Area: Trading Bloc or Building Block?*
Published April 1994 (ISBN 0 644 33325 1), 180 pages
- Changing Tack: Australian Investment in South-East Asia*
Published March 1994 (ISBN 0 644 33075 9), 110 pages
- Australia's Business Challenge: South-East Asia in the 1990s*
Published December 1992 (ISBN 0 644 25852 7), 380 pages
- Southern China in Transition*
Published December 1992 (ISBN 0 644 25814 4), 150 pages
- Grain in China*
Published December 1992 (ISBN 0 644 25813 6), 150 pages
- Korea to the Year 2000: Implications for Australia*
Published November 1992 (ISBN 0 644 27819 5), 150 pages
- Australia and North-East Asia in the 1990s: Accelerating Change*
Published February 1992 (ISBN 0 644 24376 7), 318 pages

In the face of the rapidly developing commercial relationship between Australia and major emerging economies, the media spotlight has shifted away from relations with Japan.

This report argues that it would be a mistake to conclude that Japan's importance to Australia is receding. The fundamental forces shaping the relationship – particularly the complementarity between the two economies – mean it will remain strong and crucial to Australia's economic well-being for the foreseeable future. It will also be vital for Japan, in a world where energy, resource and food security will be increasingly important.

The report also highlights other aspects of this remarkable relationship. The new ways of doing business that have developed during the 1990s and 2000s mean an increasing proportion of business between Australian and Japanese firms happens in third countries. The broader changes under way in both Australia and Japan – driven by issues such as the ageing of society, climate change, and the prevalence of services in both economies – also present opportunities for new and profitable partnerships between businesses in both countries regardless of aggregate growth figures. This report argues that capturing those opportunities will require renewed efforts to deepen and strengthen bilateral business and people-to-people links.