

The evolution of New Zealand's trade flows

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New Zealand's trading patterns have changed considerably in recent years. Our trade is increasingly oriented towards the Asia-Pacific region, both in terms of our exports and imports. This article examines changes in New Zealand's trading patterns and provides details on how the Reserve Bank measures activity and inflation in our trading partner economies. To reflect recent changes in New Zealand's trading patterns, the Reserve Bank has expanded the basket of countries that we focus on when examining international conditions. The Reserve Bank is conscious of the ongoing changes and uncertainties around the activity outlook in our trading partner economies. We will continue monitoring changes in trade patterns and make adjustments as required.

1 Introduction

Developments during the global financial crisis have highlighted the complex relationships between economies and the significant implications such relationships can have during periods of economic stress. Such relationships are particularly important for New Zealand, as we are a small open economy. Exports form a large proportion of our GDP. Additionally, significant amounts of New Zealand's consumption and investment goods are imported.

The past two decades have seen considerable changes in New Zealand's trading patterns.² Shifts are continuing to occur, with an increasing proportion of New Zealand's trade linked with Asia-Pacific economies.

In this article, we describe these changes and how the Reserve Bank measures global activity and inflation. This article is structured as follows. Section 2 looks at how export patterns have changed in recent years. Section 3 looks at how import patterns have changed. Section 4 looks at how the Bank monitors trading partner activities and section 5 concludes.

2 How have export patterns changed in recent years?

Significant changes in the demand for New Zealand's exports have continued to occur over the past two decades, with trade increasingly oriented towards Asia-Pacific economies.

Australia remains our largest export destination, accounting

¹ I would like to thank Satish Ranchhod and Kirdan Lees for their comments and assistance with the preparation of this article.

² Merchandise trade data is used when analysing changes in trade flow. Services trade data for each trading partner is not currently available.

for 23 percent of total merchandise exports in the year ended September 2009. However, there has been significant growth in New Zealand's exports to economies in Asia excluding-Japan, in particular China, Hong Kong, Malaysia, Singapore, South Korea and Taiwan. Asia excluding-Japan's share of total merchandise exports increased from 8.5 percent in 1989 to 21 percent in 2009. The corollary of this has been a reduction in the share of our exports to Western economies (US, UK, the euro area and Canada) and Japan. Western economies' share of New Zealand's total merchandise export has fallen from 33 percent in 1989 to just over 20 percent in 2009 (figure 1).

Figure 1
Share of merchandise exports by region

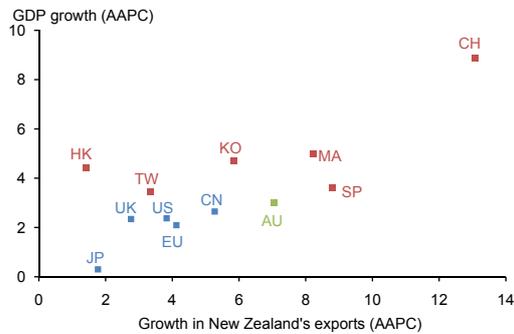


Source: Statistics New Zealand.

Smith (2004) points out that increases in the value of New Zealand's exports tend to be positively correlated with the rate of economic growth of the trading partner (figure 2). The emerging Asia region has been experiencing persistently high rates of GDP growth in comparison to more developed countries, including New Zealand's main trading partners such as Australia, Japan, and the euro area. This has seen Asia excluding-Japan's share of global output rising from 8.4 percent in 1988 to 18.5 percent in 2008.

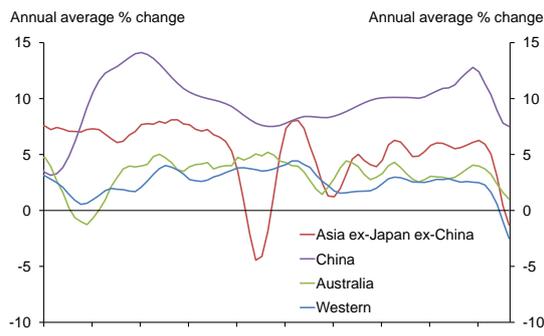
Much of the strength in Asia ex-Japan activity is attributable to China. Chinese purchasing power parity-based GDP share of world total has increased from 3.5 percent to 11.4 percent. This strength has resulted in positive spillovers for other economies in the Asia-Pacific region, including New Zealand. For the year ended September 2009, exports to China had the largest growth among all of our trading partners, increasing 57 percent year on year. The increase in value of exports to China was mainly led by an increase in exports of wood and dairy products.

Figure 2
Average NZ export value growth and GDP growth of export markets (1998-2008)



Source: Statistics New Zealand, RBNZ estimates. Country key: AU Australia, CH China, CN Canada, HK Hong Kong, JP Japan, MA Malaysia, SP Singapore, TW Taiwan, UK United Kingdom, US United States.

Figure 3
Regional growth rate



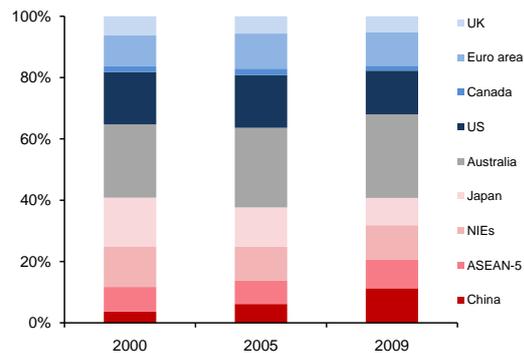
Source: DataStream, RBNZ estimates.

In addition to the rapid growth in exports to China, the share of New Zealand's exports to Southeast Asia has been expanding quickly, especially to the rapidly growing ASEAN-5 economies (Malaysia, Indonesia, Thailand, the Philippines and Vietnam). This is in part attributable to ongoing income

growth and changes in consumer preferences in the region. Although per capita income levels are relatively low in many Asian economies, earnings growth has been firm and these economies are populous. At the same time, changes in consumer preferences and dietary patterns in the region have led to rapid increases in consumption of dairy, beef and sheep meat (New Zealand's main export products to the Southeast Asia region).

While agriculture production in the ASEAN-5 region has also experienced some significant changes through improvements in farming technology, the region has had to rely on agricultural imports to help meet the huge increases in demand. This growth in demand from Asian economies has also been an important contributor to the significant price rises in some of our agricultural commodity exports since mid-2002; in particular, meat and dairy products. Improvements in the trading relationships with the ASEAN region (such as the signing of free trade agreements) have also contributed to the exceptional increase of exports to these countries.

Figure 4
Changes in destinations for New Zealand's merchandise exports



Source: Statistics New Zealand

Smith *et al* (2003) shows that China's strong growth and greater integration into the global economy implies that its business cycle might begin to have a larger impact on East Asia's and Australia's business cycles. For instance, China is Australia's largest trading partner; over 80 percent of Australia's exports to China are for Chinese domestic use. During the global financial crisis, Australia benefited from firm Chinese activity, with only a modest slowdown in Australian growth. Australia's close ties to China are also

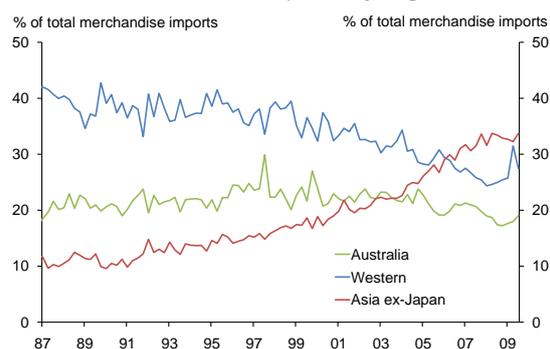
likely to provide a significant boost to their economy over the coming years. Strength in Chinese activity is also favourable for New Zealand's export outlook due to strong demand from China and through the boost to Australian activity.

3 How have import patterns changed in recent years?

Pronounced changes have also occurred in New Zealand's import patterns. While Australia remains New Zealand's largest single source of imports, the Asia excluding-Japan region has become increasingly important. The share of our imports from Asia has risen from 16 percent to 33 percent over the past decade. There has been particularly strong growth in our imports from China, which has overtaken the Euro area, US and Japan to become our second-largest source of imports. Indeed, the value of imports from China has more than tripled over the past decade. Imports from newly industrialised economies (NIEs – including Hong Kong, Singapore, Taiwan and South Korea) have also experienced strong growth, as have New Zealand's imports from the ASEAN-5 region. The signing of free trade agreements suggest that this strength will continue for some time.

Figure 5

Share of merchandise imports by region



Source: Statistics New Zealand.

While the share of imports from the Asia-Pacific region has been increasing over time, Western economies' share of merchandise imports has declined more than 10 percentage points since 2000. In particular, the US has moved from the second-largest source of imports to the fourth-largest. The value of imports from Japan has also been trending downwards, declining almost 20 percent since the mid-1980s.

The price of imports is an important contributor to the underlying trend in New Zealand's tradable inflation. Changes in trading partner inflation, together with exchange rate movements, have strong influence on import prices and therefore on tradable inflation.³ For instance, through the late 1990s and early part of this decade, New Zealand's increased trade with lower-cost producers in Asia significantly dampened tradable inflation pressures in New Zealand (Hunt 2007). However, more recently, robust growth in the Asia ex-Japan region has contributed to an increase in global inflation pressure and commodity prices since 2004 (Ranchhod 2008).

Inflation is also highly sensitive to developments in the real economy. For instance, the recent global financial crisis has put downward pressure on inflation globally. There are some uncertainties regarding the effect this will have on domestic inflation as global activity starts to recover, and both commodity prices and producer prices are starting to rise again. The impact of these developments will be strongly influenced by the state of economic activity.

4 How the Reserve Bank measures global activity

As a small open economy, New Zealand trades with over 100 countries around the world. However, it is impractical for the Reserve Bank to monitor developments in all of these countries. Instead, we focus on a subset of economies or groups of economies that are of particular importance for New Zealand. Finding the right subset of our trading partners is important, as activity in these economies is used to construct aggregate measures that act as proxies for export demand and global prices in our modelling of economic activity.

Until recently, the Reserve Bank has used a twelve-country basket to monitor developments in other economies. GDP-12 was an export-weighted aggregate of GDP in our trading partner economies, while CPI-12 was an import-weighted aggregate of consumer prices in our trading

³ Ranchhod (2008) provides detailed information on how trading partners inflation impacts New Zealand's domestic inflation, activity and the stance of monetary policy.

partner economies. The use of trade weights allows us to account for the relative importance of our trading partners in terms of their demand for New Zealand's exports. Changes in New Zealand's export and import patterns in recent years have prompted a review of the country basket we use. GDP-12's share of total merchandise exports has dropped from over 80 percent in 2000 to around 73 percent in September 2009. Additionally, export and import patterns have both suggested that the ASEAN-5 economies (most of which were excluded from GDP-12 and CPI-12) are becoming increasingly important markets for both exports and imports.

Given these developments, we have shifted to a 16-country basket for monitoring international activity (GDP-16 and CPI-16), which accounts for around 80 percent of total merchandise trade by value. GDP-16 and CPI-16 are constructed using the same method as their earlier GDP-12

and CPI-12 counterparts. Appropriately, the measures now have a stronger emphasis on the Asia-Pacific region, including the addition of Indonesia, the Philippines, Thailand and Vietnam to the country basket. The Asia-Pacific region now forms around 60 percent of GDP-16 (vs. 53 percent of GDP-12). At the same time, the weight of North American economies has fallen by 1.4 percent and Japan's weighting has declined by 1.1 percent. About 1.5 percent of the weighting of the Euro area and UK has also shifted to the Asia-Pacific region (table 1).

GDP growth in the new 16-country basket tracks the growth in 12 country basket closely (in part reflecting that the trade shares in these baskets are regularly updated). The differences between the two measures became apparent from 2006, with slightly stronger growth in GDP-16 (figure 6). CPI-16 and CPI-12 are broadly similar, although the annual average growth rate of CPI-16 is slightly higher than

Table 1
Weights in GDP-16, GDP-12, CPI-16 and CPI12
(Two-year moving average)

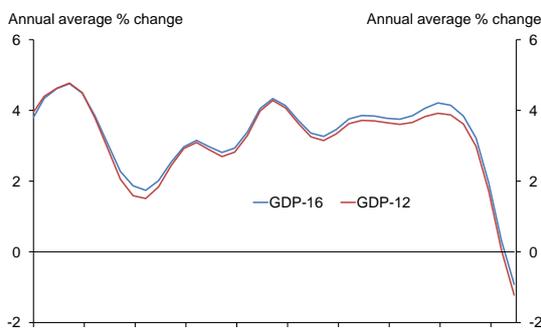
| | GDP-16 | GDP-12 | CPI-16 | CPI-12 |
|-------------------|--------|--------|--------|--------|
| Australia | 28.8 | 31.6 | 21.3 | 22.9 |
| US | 13.3 | 14.1 | 11.6 | 12.5 |
| EU | 10.6 | 11.3 | 14.4 | 15.5 |
| Japan | 9.9 | 11.0 | 9.4 | 10.0 |
| China | 8.8 | 9.5 | 16.2 | 17.4 |
| UK | 5.0 | 5.5 | 2.7 | 2.9 |
| Korea | 4.1 | 4.5 | 3.5 | 3.8 |
| Indonesia | 3.2 | - | 2.5 | - |
| Singapore | 2.6 | 3.0 | 5.4 | 5.9 |
| Malaysia | 2.5 | 2.8 | 4.0 | 4.3 |
| Taiwan | 2.3 | 2.5 | 2.2 | 2.3 |
| Hong Kong | 2.3 | 2.4 | 0.5 | 0.5 |
| Thailand | 2.0 | - | 3.1 | - |
| Philippines | 2.1 | - | 0.4 | - |
| Canada | 1.6 | 1.8 | 1.7 | 1.9 |
| Vietnam | 1.0 | - | 1.0 | - |
| Asia ex-Japan | 30.8 | 24.7 | 38.9 | 34.4 |
| Western economies | 30.5 | 32.6 | 30.4 | 32.7 |

Source: Statistics New Zealand, RBNZ estimates.

CPI-12, reflecting the higher inflation rate in the Asia ex-Japan economies (figure 7). Asia excluding-Japan economies have continued to provide a strong positive contribution to GDP-16 growth during the recent financial crisis, while developed economies are putting downside pressure on the aggregate growth measure (figure 8), again highlighting the growing importance of Asian economies for New Zealand.

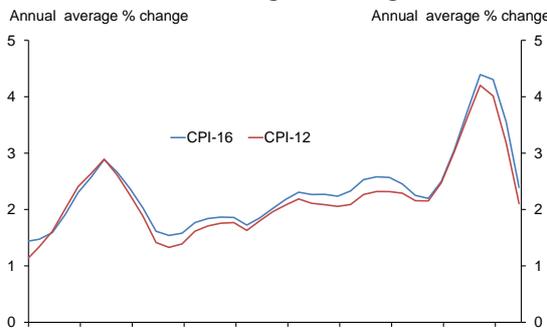
While we focus on GDP-16 and CPI-16 for forecasting purposes, we remain conscious that developments in other

Figure 6
GDP-12 and GDP-16 average annual growth



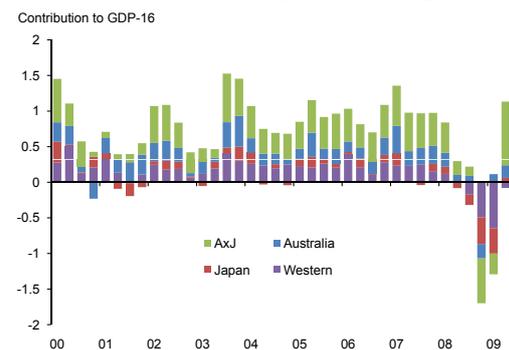
Source: Datastream, RBNZ estimates.

Figure 7
CPI-12 and CPI-16 average annual growth



Source: Datastream, RBNZ estimates.

Figure 8
Contribution to GDP-16 growth by region



Source: Datastream, RBNZ estimates.

economies affect New Zealand through a range of channels other than export demand and import prices (for example developments that affect financial markets). Consequently the Bank monitors a wide range of information on the global economy.

5 Conclusion

The make-up of global activity is continuing to change. Asian economies' share in global activity has increased and is likely to continue doing so for some time. Such changes have important implications for activity in New Zealand. Economies in Asia are becoming increasingly important export markets and source of imports for New Zealand. The strong growth in Asian economies is also having an impact on some of New Zealand's traditional trading partners. In particular, Australia has benefited significantly from strong growth in Asia, and this is likely to pass through to New Zealand.

The Reserve Bank is conscious of the ongoing evolution of our trading relationships, including the growing importance of the Asia-Pacific region for the New Zealand economy. Reflecting such changes, we have recently expanded the basket of countries that we use for examining New Zealand's trade patterns. There are some uncertainties around the activity outlook in New Zealand's trading partner economies, but the Reserve Bank will continue to monitor trade flows and make adjustments to our methodologies as required.

6 References

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