Export performance after depreciation

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Many commentators have been disappointed by the recent performance of the export sector. The New Zealand dollar has depreciated substantially over the last two years, but the response of exports has been muted so far. In reality, there are a number of reasons why exports have not reacted as promptly as expected. This article looks at some possible explanations and tries to assess them. It concludes that the negative factors that have constrained New Zealand exports in the recent past are bound to end soon. As a result, exports will resume their growth, fuelled by a stronger demand from our trading partners and more favourable commodity prices.

1 Introduction

The New Zealand dollar has depreciated sharply over the last two years. One might expect that such a depreciation would trigger a boom in exports: the depreciated New Zealand dollar has improved the competitive position of New Zealand firms, as the costs of producing exports are lower when measured in foreign currencies. This improved competitiveness enables firms to generate higher profit margins or higher receipts, or both. Yet New Zealand export performance over the last year has been subdued. This article looks at the reasons for the lack of responsiveness of exports to exchange rate changes. We argue that the export response is understandable, once allowance is made for the time taken to find new export markets and unique factors such as droughts. We also anticipate a robust export performance going ahead.

There are a number of reasons why we should not be surprised at the initial unresponsiveness of exports to changes in the exchange rate. First, export volumes always take time to adjust after a sharp depreciation. In New Zealand the maximum response time of export volumes to a large depreciation of the currency has been around two years. Secondly, the Asian and Russian financial crises reduced demand for many of the standard commodities that New Zealand exports. Finally, New Zealand suffered a major drought during the summer of 1997/98—and to a lesser extent in 1998/99—that adversely affected farmers' ability to increase production volumes despite their improved external competitiveness.

The destination of New Zealand's merchandise exports is also an important part of the story. Exports to crisis-hit Asia (Indonesia, Korea, Malaysia, the Philippines, and Thailand) fell sharply in 1998 while exports to the United States rose which partly offset these declines. Such a shift in export demand is to be expected given the steep contraction of the Asian economies and strong growth in the United States. Broadly speaking New Zealand exports have continued to grow strongly in markets where domestic demand has been robust and competitiveness gains large, but have been sluggish in markets with weak domestic demand such as Asia and Russia. Moreover, the weakness of the Asian currencies has reduced the competitiveness of New Zealand exporters in Asian markets.

Although export volumes are now increasing in aggregate, it has been non-commodity manufactures and service exports that have been growing. New Zealand's largest market for manufactured exports is Australia, whose currency depreciated by a similar magnitude to New Zealand's in 1998. Other things being equal, we should not have expected to see exports to Australia being boosted by last year's depreciation of the trade-weighted index. If anything, third country competition in Australia, especially out of China and East Asia, has made it even harder for New Zealand firms to export to Australia.

Standard economic analysis suggests that the response of exports to a currency depreciation will increase over time and further adjustment in New Zealand's export performance is yet to occur. Moreover, as the Asian economies recover and drought-related supply constraints diminish, the prospects of improved export performance will be enhanced. However, export performance depends crucially on the maintenance of growth in the United States and Europe as well as a continued recovery in Asia. If world growth were to suffer a further adverse shock then New Zealand's export performance would continue to languish.

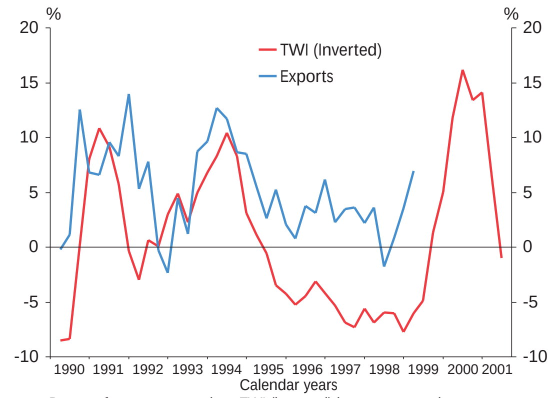
2 Recent developments

Despite the large depreciation of the New Zealand dollar over the last two years (24 percent against the United States dollar and 16 percent in trade-weighted terms), the recent performance of New Zealand exports has been sluggish. Export volumes grew by an average $2^1/_4$ percent per annum over the turbulent 1997 and 1998 years. Export volumes even dropped briefly in the middle of 1998. During the recession of 1990-1992 export volumes were not growing while New Zealand's currency depreciated by nearly 10 percent. Yet two years later export volume growth had increased to nearly 9 percent. While there were many factors behind this boom in exports, such as improved international linkages and liberalisation of imports in some markets, the improved competitiveness was surely an important factor.

The recent depreciation of the New Zealand dollar has not yet seen export volume growth increase. However, we should not be surprised that New Zealand has not yet seen a boom in export volumes. Unlike import volumes, New Zealand's export volumes seem to take a significant time to respond to currency depreciations. Figure 1 shows that exports respond to major exchange rate changes with a lag of nearly two years and the maximum correlation (of over 60 percent) between the TWI and export volumes occurs at exactly 24 months.

Even though exports may be more competitive in world markets following a currency depreciation, exporters still have to find new customers, especially if traditional customers no longer want their products. In the short run there may be no increase in the supply of exports because increasing production capacity may be difficult and expensive. Increasing supply often means hiring new labour and investing in new plant and equipment. If the depreciation proved to be temporary then such expansions would be unprofitable. It is in the interest of exporters to wait and see if the depreciation is more durable before making costly and irreversible decisions. The seasonal nature of some of New Zealand's commodities also results in a slow response even if exporters would like to increase production immediately.

Figure 1
Total exports goods and services and the exchange rate



Dates refer to export series. TWI (inverted) has a two year lag.

Moreover, existing sales and hedging contracts may mean that there are lags in the benefits of the exchange rate depreciation coming to exporters. In the short run, unrealised losses on forward exchange rate cover may place constraints on exporters' ability to borrow working capital to expand production in order to take advantage of the more favourable exchange rate.

A sluggish response of export volumes to changes in the currency is to be expected given the natural cycle in New Zealand's exports, the lags in unwinding or fulfilling existing contracts, and the benefits in waiting to see if a change in the currency is permanent.

Export volumes have also been slow to pick up in other countries that have had a substantial depreciation of their currency. For example, Australian annual growth in export volumes was $-1^1/_2$ percent in 1998, compared with growth of over 10 percent in the previous two years. Growth in Canadian export volumes has remained about 8 percent, because the proportion of Canada's exports to Asia is smaller than Australia's and New Zealand's and Canada's access to the robust United States economy helped insulate Canadian exporters.

The sharp declines in exchange rates in the East Asian crisis countries of Indonesia, Korea, Malaysia, the Philippines, and Thailand also took time to influence export volumes. While East Asian currencies started depreciating two years ago, export volumes from the region improved only from late 1998 and 1999. For example, Korean export volume growth was nearly 17 percent in 1998 following the depreciation of the won by nearly 50 percent against the US dollar in 1997.

3 Impact of the Asian crisis

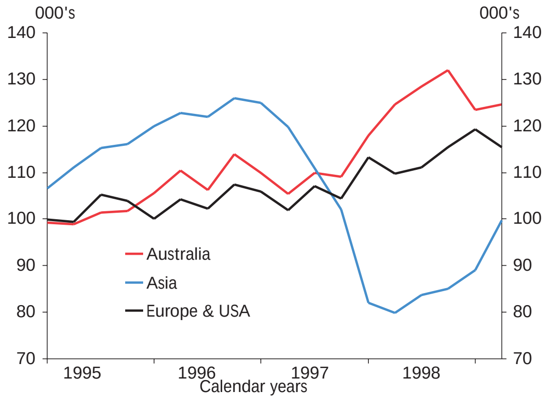
The Asian financial crisis and difficulties in other parts of the world, such as Russia, had a substantial impact on a number of New Zealand exports. In 1996, prior to the crises, about 27 percent of New Zealand's merchandise exports went to Asia (including Japan). In 1998 New Zealand's merchandise exports to Asia shrank by nearly 15 percent in value, and they now represent about 22 percent of New Zealand's exports.

The Asian crisis affected different sectors in different ways. The first sector to be hit was services, and particularly tourism. Visitor arrivals from Asian countries fell dramatically, a loss only partially compensated for by an increase in visitors from other destinations. The second major impact of the crisis was on commodities. Demand for a number of items, such as timber and butter, dropped drastically in key markets.

Services were hit first by the Asian crisis, with transport and travel being affected most at the onset of the crisis in mid-1997. Both sectors suffered sharp declines in real terms (table 1).

A major factor behind the decline in service exports was the fall in the number of visitors from Asia (figure 2). The decline in Asian tourism adversely affected particular segments of the transport and travel sectors, such as coach operators, high-end accommodation, and air travel. In response some airlines servicing Australia and New Zealand re-directed some of their flights from Asia to other parts of the world. Air New Zealand reduced Auckland to Brisbane flights from 12 to 8 a week, mainly because this route was a feeder service to Korea, and it cancelled its Korea service because of the rapid decline in passenger traffic. Air New Zealand was joined by Qantas, which cancelled its flights to Korea, and by Asiana Airlines, which cancelled its Cairns-Korea route.

Figure 2
Arrivals of overseas visitors



Another services sector affected by the crisis was education. Student numbers in tertiary and secondary institutions from Malaysia and Thailand fell by as much as 20 to 30 percent in 1998. The main impact has been in the university sector. In addition, "English as a second language" institutions have seen large declines in Korean and South-East Asian student numbers.

In late 1998 and early 1999 the volume of services exported recovered from its 1997 trough, with both transport and travel services seeing growing activity. Asian tourist num-

Table 1
Exports of services
(in percentage change)

	1997	**1998**	98Q1	98Q2	98Q3	98Q4	99Q1
Transport	**-5.1**	**3.5**	0.7	0.0	5.6	0.2	-2.7
Travel	**-13.2**	**3.0**	-0.7	0.8	3.4	9.2	6.7
Government	**6.0**	**-4.9**	0.0	-3.3	-3.4	7.1	-10.0
Other[1]	**9.3**	**14.8**	3.7	15.6	0.0	-2.3	1.6
Total Services	**-7.2**	**4.7**	**0.4**	**2.6**	**3.5**	**3.9**	**2.2**

Note: Real exports of services (SNA basis). Data for calendar years 1997 and 1998 are annual average percentage changes while data for 1998Q1 to 1999Q1 are in quarterly percentage changes (seasonally adjusted).

Source: SNZ.

[1] "Other" includes labour income, advertising and communication services, and rent other than operating leases on transport equipment.

Table 2
Selected commodity export volumes
(in percentage change)

	1997	1998	98Q1	98Q2	98Q3	98Q4	99Q1
Dairy	**15.5**	**-3.8**	-1.1	-6.4	6.2	3.9	3.6
Lamb, hogget, mutton	**3.4**	**-3.4**	-1.2	-15.0	2.8	15.7	-11.3
Beef and veal	**2.6**	**-3.2**	5.3	-13.4	-19.5	11.7	4.1
Wool	**-1.8**	**-2.0**	2.4	-2.4	4.4	-9.7	-14.3
Forestry products	**3.4**	**-3.5**	-0.5	-8.6	8.9	14.9	-3.9
Non-fuel crude materials	**-1.1**	**-4.2**	-0.3	-5.0	7.2	-0.3	-7.3
Total commodities	**6.5**	**-3.2**	**0.1**	**-9.3**	**5.5**	**7.0**	**-1.4**
Total merchandise exports	**5.6**	**-1.0**	**5.7**	**2.2**	**-0.1**	**-1.0**	**-2.1**

Note: Real commodity exports (SNA basis). Data for calendar years 1997 and 1998 are annual average percentage changes while data for 1998Q1 to 1999Q1 are quarterly percentage changes (seasonally adjusted).
Source: SNZ

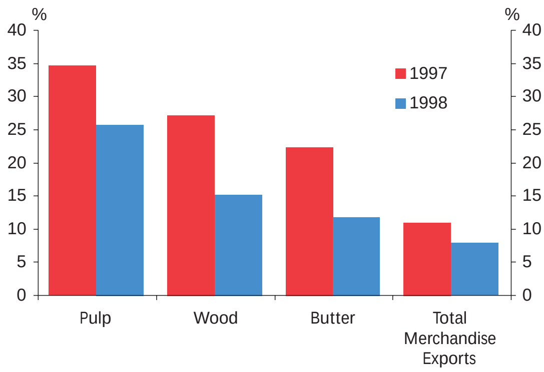
bers have started to expand again, and there has also been an increase in the number of tourists from Australia, Europe, and the United States.

The impact of the Asian crisis on New Zealand commodity exports has been widespread, with all sectors showing declines in 1998. In contrast to exports of services, the downturn in commodity exports occurred in 1998 rather than in 1997, although wool and non-fuel crude materials showed signs of weakness in 1997. The widespread nature of the downturn masks the severity of the crisis on some specific products. Sharp falls in the volume of forest product exports were recorded during the depths of the Asian crisis. The volume of these exports was 17 percent lower in June 1998 than it was a year earlier. The main cause of the decline was the slow-down in Japan (the main export destination) and some other key markets, notably Indonesia for pulp and Korea for wood.

Figure 3 emphasises that exports of commodities were affected by crises in various parts of the world in 1998. In particular, exports of wood and pulp products to Asia and export of butter to Russia fell sharply. The weakness of the Japanese economy (and of Australian import demand) is also responsible for the fall in beef exports. The share of fresh and chilled beef exported to Japan (and Australia) has fallen, as has the share exported to Hong Kong, Singapore, Malaysia, and Korea.

Dairy exports were hit hard later, when the Russian crisis erupted in 1998. Russia was then the second most impor-

Figure 3
Exports of commodities to crisis-hit counties

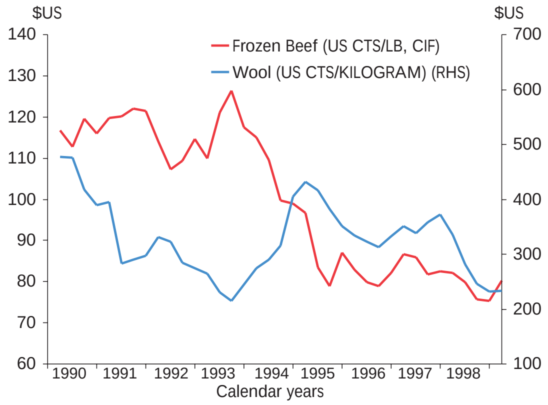


tant market for NZ butter. Following the Russian crisis, the share of exports of cheese and butter going to that country fell by 2 and 11 percentage points respectively. Exports of dairy products to some other countries also slowed while those to Indonesia dried up altogether. While there was some switching to growing markets such as North America, exporters' profit margins have suffered as prices for dairy products have fallen around the world.

Other products have also suffered. In early 1998, fish sales to Japan fell by over 30 percent and those to Korea by 80 percent. The decline reflected both volume and price declines as fish prices fell by over 20 percent worldwide. Orders for deer antler velvet—90 percent of which traditionally goes to Korea—virtually dried up at the start of 1998. While demand has subsequently resumed, prices remain subdued.

As a result of the crises in Asia and Russia, world prices of many of the standard commodities in which New Zealand

Figure 4
Prices of beef and wool



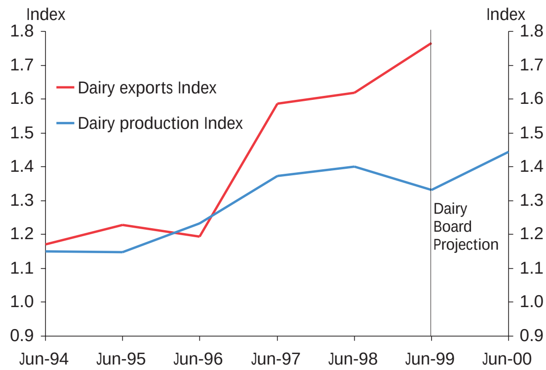
specialises in have fallen sharply since the middle of 1997. For example, prices of frozen beef and wool are near their lowest point for ten years (figure 4).

4 Impact of drought

Quite apart from the difficulties faced by New Zealand exporters as a result of the Asian crisis, some sectors of the economy were also hit by the effects of droughts that occurred in the summers of 1997/98 and 1998/99. The El Nino of 1998 brought one of the worst droughts to the South Island for nearly 150 years and severely affected Hawkes Bay. Meat and dairy were the sectors most affected.

In the summer of 1997/98 the dry conditions forced farmers to slaughter stock early. In the first quarter of 1998, the numbers slaughtered reached near record highs, peaking at over13 percent above trend. This peak and the subsequent fall to about 10 percent below trend in meat production are just a reflection of the drought-induced disruption to the normal cycle. The time profile of export volumes follows very closely that of killings during this period, suggesting that supply acted as a constraint on the response of export volumes to the change in the exchange rate. In contrast, the impact of the second drought is likely to be less serious. The peak in killings reached last summer looks more in line with past seasonal peaks and exports appear on the way to a steady recovery. Exports may be held back in the near term as farmers, especially in the east coast region of both islands, retain stock to rebuild herd and flock numbers. But overall, we expect that improving weather conditions should lead pastoral exports to make more of a positive contribution to export growth further ahead.

Figure 5
Volume of milk solids produced and dairy products exported



To make matters worse, dairy production was severely limited by the droughts in 1997 and 1998 (figure 5). However, according to Dairy Board projections, production is expected to increase in the June 2000 year, with likely positive effects on the recovery of New Zealand exports.

5 The switch of export markets

The destination of New Zealand's merchandise exports has shifted significantly because of the Asian crisis. Exports to crisis-hit Asia fell over 23 percent in 1998 relative to the same period in 1996, versus a rise in exports to the United States of nearly 50 percent. Obviously, the crisis in Asia has seriously affected these countries' ability to pay for imports. Crisis-hit Asian domestic demand fell over 15 percent in 1998. Conversely, incomes have been rising in Australia, Europe, and the United States. For example, domestic demand in the United States rose by about 5 percent in 1998.

Figure 6
Merchandise exports by region

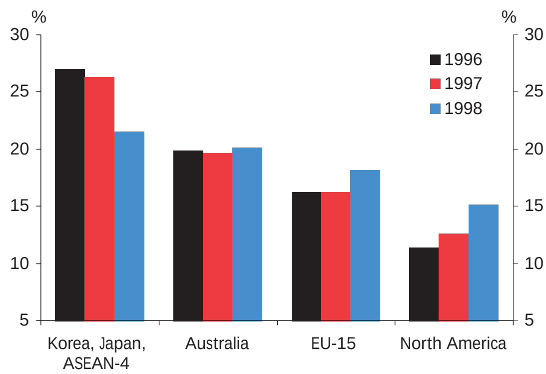


Figure 7
Components of exports

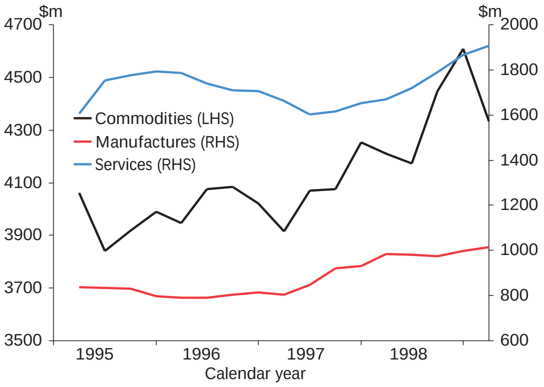


Figure 6 (previous page) shows the composition of New Zealand merchandise exports by destination in the last three years. The share of exports to regions with falling domestic demand—Korea, Japan and the ASEAN-4—has declined from about 27 percent in 1996 to about 22 percent in 1998.[2] On the other hand the shares going to North America, Europe, and to a lesser extent Australia, have picked up.

While domestic demand in overseas markets is a very good predictor of exports to these markets, some of the switching may be due to other factors. For example, New Zealand producers have certainly encountered some difficulties selling to Asia as a result of importers experiencing financing problems. Figure 6 clearly shows that exports to regions with falling domestic demand have fallen, while those regions with robust domestic demand have risen.

New Zealand's largest market for manufactured exports is Australia, whose currency, until recently, has depreciated by a similar magnitude to New Zealand's currency—about 20 percent against the US dollar from March 1997 to March 1999. Other things being equal we should not expect exports to Australia to be boosted by the depreciation in our trade-weighted index.

Elaborately Transformed Manufactures (ETMs) tend to be more specialised products developed for niche markets. They are difficult to sell elsewhere in the event of key-market contractions. As a consequence, one would expect these products to have been hit harder by the Asian crisis. However, the main markets of Australia and the United States (the main destination of these goods) have held up well during the crisis. Growth in ETM exports has largely come through increased demand from these two countries. The Australian market is the most important destination for these products while the United States market has grown in importance.

6 The period ahead

It appears there is nothing anomalous in the recent performance of New Zealand exports. After the fall in the exchange rate and the easing of the Asian crisis, New Zealand market share has recovered in volume terms. The increased competitiveness of New Zealand exporters and the expected recovery of world demand and commodity prices will see

Table 3
Export volumes of selected manufactured goods
(in percentage change)

	1997	**1998**	98Q1	98Q2	98Q3	98Q4	99Q1
Textiles, clothing, footwear	**12.9**	**-1.5**	-5.2	-3.0	3.2	4.3	8.8
Machinery & appliances	**17.2**	**8.4**	2.5	-3.5	0.5	-4.3	7.6
Transport equipment	**15.1**	**-22.1**	-7.4	-14.2	-4.8	0.8	23.0
Total non-commodities	**7.1**	**3.0**	**-1.4**	**-0.1**	**0.4**	**-2.6**	**8.4**

Note: Real exports of services (SNA basis). Data for calendar years 1997 and 1998 are annual average percentage changes while data for 1998Q1 to 1999Q1 are in quarterly percentage changes (seasonally adjusted).
Source: SNZ

2 The ASEAN-4 countries are Indonesia, Malaysia, the Philippines, and Thailand.

New Zealand exports increase more rapidly in the next few years. The supply constraints experienced as a result of the droughts will certainly ease in the course of the next months, as the last drought looks to have been milder than the previous one.

The previous business cycle provides a basis to understand the prospects for near term export performance. Near-term exports should grow at a similar rate through the next business cycle as they did in the last, but more because competitiveness has been maintained, rather than strong world growth. Figure 8 shows this by comparing the levels of exports, world GDP, and the real exchange rate in the two last recessions. In both charts, the data are indexed to equal 1 at time 0, where time 0 is the date of the trough of each recession—June 1991 and June 1998, respectively.

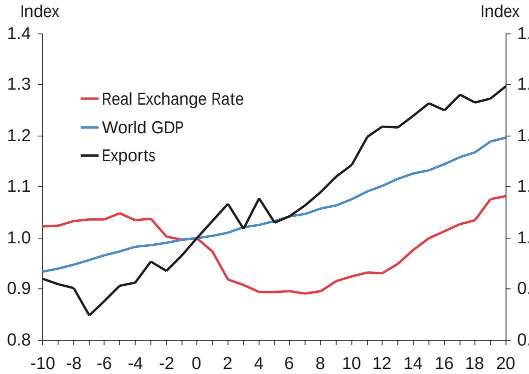
At the time of the 1998 trough, the real exchange rate had depreciated by approximately 14 percent from its peak in early 1997. This is a remarkably similar, albeit somewhat faster, depreciation to that recorded in 1991. By the time of the 1991 trough, the real exchange rate had also depreciated by around 14 percent from its peak in June 1988.

As far as world demand is concerned, our 14-country measure of world GDP grew steadily through the 1991 recession at annual average growth rates of between 2 and 3 percent, but there was a distinct softening during 1998 (down to 0.8 percent in annual average growth terms). Indeed, our 14-country measure of world GDP[3] shrank in the first two quarters of 1998—the only contraction in the 16 years for which we have data. The situation has now turned around and recovery is under way.

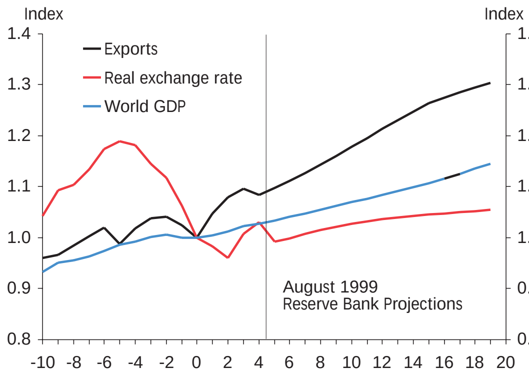
The expected improvements in world growth and the maintenance of New Zealand's competitive position suggest a positive outlook for export growth over the near term. Already, indications are that the depreciated exchange rate has been a significant help to exporters. Of course, some sectors will improve faster than others. Compared to 1998,

Figure 8
Export volumes, world GDP, and the real exchange rate

(a) 1991 recession



(b) 1998 recession



the tourism industry has experienced a large rebound in visitor numbers and visitor expenditure. Timber is being helped by strong growth in the United States, increased forestry production, and returning growth in Asia. Fishing is being boosted by improved international prices. Horticulture prospects are favourable due to good crops and improving prices. Finally, manufacturing exports, particularly from niche manufacturers, are growing strongly in the United States and Australia. However, traditional commodity exports such as dairy, wool, and meat, have not improved yet but are set to grow following more favourable weather.

3 The fourteen countries correspond with New Zealand's fourteen largest export markets.