

International capital flows, external debt, and New Zealand financial stability

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New Zealand is unusually dependent on foreign capital. Many of these substantial external liabilities are denominated in foreign currency, yet it is often correctly noted that we are not very exposed to the impact of changes in the exchange rate on the value of net external liabilities. This article goes beyond the aggregated data to further our understanding of the capital flows into and out of New Zealand, and to try to get a little closer to understanding who is taking the foreign exchange risks in these substantial cross-border flows. We then extend the analysis to examine potential points of vulnerability for the New Zealand financial system.

1 Introduction

This article examines the nature and composition of capital flows and the possible implications for New Zealand financial stability.

Heavy reliance on foreign capital is one characteristic New Zealand shares with many (though not all) of the countries that have experienced financial crises over the last 10-20 years. Being able to draw on foreign capital to help finance investment, or indeed to consume in anticipation of expected future income growth, is attractive. However, there are also risks.

New Zealand differs from typical crisis countries in many important respects, but this does not mean that we are invulnerable. Whatever the general lessons of international financial crises, our points of vulnerability may be rather more specific to New Zealand.

The aim of this article is threefold. First, we briefly describe the overall trends in capital flows into and out of the New Zealand economy over the past decade, and put this, and the overall level of net external indebtedness, into some sort of international perspective.

Official statistics break down the stock and flow of capital according to the international standards for balance of

payments accounting.² It is also useful – and the second objective of this article – to think about capital flows from a different viewpoint, that of the component markets (the bond market, equity market, government issuance, and so on). Doing so offers insights on what drives capital flows and, by extension, on the potential points of vulnerability.

Finally, we discuss the implications of the analysis, and characteristics of the sorts of capital flows New Zealand has experienced, for the stability of our economy and financial system.

In many respects, the material in this article should be thought of as something akin to “work in progress”.³ The Reserve Bank has an ongoing commitment to build its understanding in these areas, but on many points the data are relatively fragmentary and the sorts of issues of particular relevance to New Zealand are not covered well in the burgeoning international literature.

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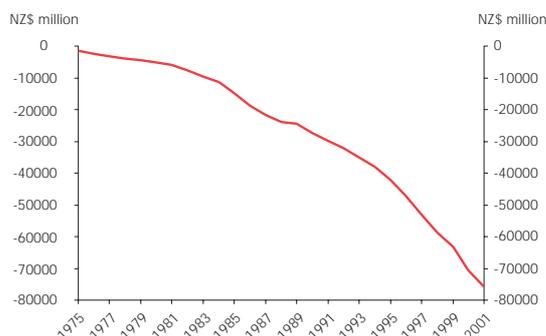
² This standard is known as Balance of Payments Manual 5 (or BPM5) and is determined by the International Monetary Fund.

³ For example, as New Zealand has substantial net external liabilities the focus here is largely on gross foreign claims on New Zealand, and discussion of the smaller, but still substantial, gross New Zealand claims on foreigners is left for another article.

2 Background

Since the mid-1970s New Zealand has consistently imported more goods and services than it has exported. It has, in other words, consistently run a current account deficit. Each of these deficits had to be financed by capital inflows (a “financial account surplus” in the official jargon). Figure 1 shows the accumulated current account deficit since 1975 and indicates how each deficit has added to a net stock of external liabilities.⁴ The best official measure is Statistics New Zealand’s International Investment Position (IIP) data.⁵ At the end of June 2001 this showed a net liability (of New Zealand resident firms and households to non-residents) of \$87.5 billion, or just over 75 per cent of GDP. Figure 2 illustrates that our level of (net) dependence on foreign capital (also known as net foreign assets or NFA) is high by world standards, especially for a well-developed and relatively mature economy.⁶

Figure 1
Cumulated current account deficit 1975-2001



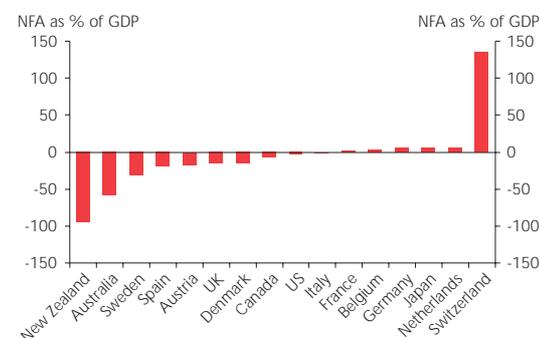
Source: Statistics New Zealand

At a very simplified level (and things are never quite that simple in reality), foreign investors can provide capital either as debt (New Zealanders owe a fixed amount of money) or as equity (the investor takes a claim on some percentage of

the earnings of operating businesses). The debt can be expressed either in New Zealand dollars or in foreign currency. Many of the debts New Zealand entities have taken on are denominated in foreign currency (see figure 3), but an unusual feature of the New Zealand financial system is that virtually all of these loans are hedged.⁶

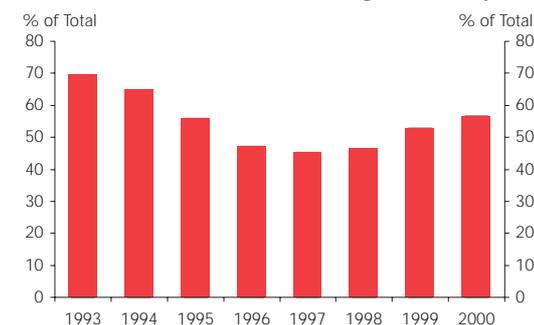
Statistics New Zealand (SNZ) estimates that in each of the past 4 years, more than 95 per cent of the outstanding foreign exchange debt exposures were hedged (either naturally or by derivative instruments). In the case of foreign

Figure 2
Actual NFA/GDP ratio



Note: March 1999 data, except for Switzerland, Italy, and France (December 1998), and Netherlands (December 1997). Source: RBNZ estimate.

Figure 3
International liabilities in foreign currency



Source: Statistics New Zealand

debt held by banks, the extent of hedging is even greater, with hedging mainly taking the form of derivatives, such as swaps or forwards contracts. In this case, a derivative is just a “side contract”: a firm might borrow in foreign currency,

⁴ Note that figure 1 illustrates the accumulated flows of current account deficits from 1975, not the stock of net external obligations at a point in time. That is, although the accumulated deficit is charted from 1975 this doesn’t imply that New Zealand’s net international investment position was close to zero at that time.

⁵ See St Clair (1998) and St Clair, Tether, and White (1998) for a detailed discussion of the component accounts. While these articles were based on the previous version of the Balance of Payments Manual (BPM4), the basic structure outlined – including the three main investment components of Portfolio, Direct, and ‘Other’ – and the discussion of their key characteristics, are still broadly relevant.

⁶ See box 1 for an illustration of how the hedging can work.

but then enter into another contract under which another party takes on the foreign exchange risk on that loan. Using these derivative contracts means that borrowers can raise funds in any of a number of foreign currencies (and have them recorded on the balance sheet and in official statistics as foreign currency debts) but can transform them into what are effectively New Zealand dollar liabilities, removing the foreign exchange exposure. Highly indebted countries are typically unable to borrow in domestic currency (directly or indirectly by way of hedging) and borrowers wanting to tap international debt markets therefore have to take on foreign exchange exposures.⁷

But if New Zealand residents are not directly exposed to foreign currency exchange rate risk, this invites the question ‘who is taking the risk’? If we can effectively borrow from abroad in New Zealand dollars, someone must be willing to lend in New Zealand dollars – someone, most likely, without a strong “natural” interest in holding New Zealand dollar assets. We try to offer some pointers on this later in the article, but should note here that the answers are neither readily identifiable from the IIP statistics, nor from any other directly observable statistics.

3 Making sense of capital flows

Before turning to some of the component markets, it is useful to stand back and take a broader view of the capital flows over the last decade or so.

Over the decade as a whole, several broad trends emerge. First, New Zealand’s dependence on international capital (both debt and equity) has increased substantially, to the point that New Zealand is more dependent on net external capital than any other developed country is currently, or probably has been at any time in recent decades. Secondly, more than all of the increased external indebtedness is attributable to the private sector: the government has dramatically reduced its indebtedness (domestic and external) from abroad. Households’ appetite for debt has been the

largest single factor in our increased need for foreign capital – and, with few exceptions, households cannot directly borrow from abroad.⁸ Perhaps most striking of all, however, was the much-increased role of banks as intermediaries for foreign savings, particularly in the second half of the 1990s. Bank borrowing from abroad has increased very substantially, and now makes up a large proportion of both net and gross external exposures.

Turning to the corporate sectors, the mix between debt and equity appears to have fluctuated (and the distinction between debt and equity instruments is not always clear, as with, for example, the development of hybrid instruments). In the early 1990s the privatisation programme and substantial Crown debt repayments tilted the balance towards equity. The period from around 1994 until 1997/98 was characterised by a combination of very high interest rates, and also a high exchange rate for much of the period. Taken together with the relatively “low-tech” nature of most of our firms at a time when high-tech stocks were increasingly favoured, this meant that almost all the net external financing for several years probably took the form of increased debt. Only in the last 18 months or so has the picture changed decisively. A very low, probably under-valued exchange rate and a reassessment of global equity values appear to have left many New Zealand real assets looking quite cheap to international investors. That has prompted renewed, and very substantial, equity inflows at a time when the current account deficit itself (the need for net new funding each year) has narrowed quite considerably.

We now turn to look more closely at individual markets to try to help illustrate the flows and get some idea of “who is bearing the foreign exchange risk”. In most of this area the data are less comprehensive or easy to interpret than would be desirable, but even bringing them together in one place helps highlight the issue and areas for future research.

⁷ See McLean and Shrestha (2001) for a detailed, if inconclusive, discussion on why Australia, New Zealand, and South Africa were able to borrow internationally in their respective domestic currencies.

⁸ There is no legal impediment to individuals borrowing abroad, but there are some practical difficulties in doing so.

Table 1
Marketable New Zealand securities held by non-residents (NZ\$m)⁹

	1993	1994	1995	1996	1997	1998	1999	2000	2001
Equity (listed)	n/a	n/a	23,884	28,417	28,798	25,466	28,202	20,168	16,028
Traded debt securities									
Government bonds	4,309	7,396	7,475	11,375	11,631	10,779	9,655	7,913	8,481
Treasury bills	2,932	2,875	4,046	3,511	2,934	1,998	651	714	696
Other debt									
Other Government debt	30	66	49	111	27	11	23	31	18
Private sector debt	270	883	1,302	2,077	2,685	873	2,198	1,062	1,961
Total debt	7,540	11,221	12,872	17,074	17,277	13,661	12,527	9,721	11,156
Total									
(Debt and listed equity)	n/a	n/a	38,316	51,818	59,810	58,528	60,205	45,874	40,609
Eurokiwis (memo item)	2,050	1,635	1,560	6,327	13,735	19,401	19,476	15,985	13,425

4 Component markets

Our best estimates of the value of offshore ownership across a number of types of marketable New Zealand securities are shown in table 1. The following discussion looks in more detail at what sense we can make of what has been going on in the equity market, the market for government securities, the corporate bond market, banks' own funding activities, and also the offshore market for New Zealand dollar denominated debt (the eurokiwi market).

4.1 Equity market

There has undoubtedly been a substantial increase in offshore equity investment – that is, increased foreign ownership of New Zealand companies (see figure 4). A number of relatively large merger and acquisition transactions have made the headlines over the past decade, many of which have resulted in the acquisition of domestic entities by offshore investors.

Official SNZ data on the International Investment Position, as reflected in table 2, highlights how recorded offshore equity investment into New Zealand has been relatively stable over the past 5 years, while there has been a marked increase in non-equity sources of foreign investment into New Zealand. This would appear to be at odds with other indications. Moreover, the numbers in table 1 also show a drop. So what is going on here?

Dealing with the easier item first, the numbers in table 1 include only companies listed on the New Zealand Stock Exchange as at the date of the estimate. A number of listed companies that had substantial foreign ownership have been taken over in full by offshore firms. In such cases, the firm remains domiciled in New Zealand, but as a wholly owned subsidiary it is no longer a listed company. A good recent example was Fletcher Paper. While offshore investment in New Zealand increased as a result of the full takeover, holdings in listed companies (estimated in table 1) drop.

Table 2
Foreign debt and equity claims on New Zealand (as at March, NZ\$m)¹⁰

	1997	1998	1999	2000	2001
Equity	45,144	50,994	51,085	51,786	48,473
Other	67,822	73,062	76,176	83,665	115,825
Total	112,966	124,056	127,261	135,451	164,298

Source: Statistics New Zealand

⁹ Data are based on RBNZ surveys with the exception of the equity market, which is an estimate based on market capitalisation and private sector organisations' estimates of offshore ownership.

¹⁰ Note that SNZ changed the methodology for the survey upon which this data is based, and as a result the data in 2001 is not directly comparable with earlier years.

The data in table 2 do not suffer from that problem, and are the best comprehensive estimates of offshore ownership we have. But they still need to be interpreted carefully. For example, the data will change depending on where a company's head office is located. Several large companies (notably Brierley Investments and Lion Nathan), have shifted their head offices from New Zealand in recent years, without changing the nature of their underlying operational businesses at the time the head office moved.

The effect of this is best shown by an example (see below). Suppose XYZ Limited has (for simplicity) \$4000 of equity and no debt, and is based in New Zealand. Offshore investors own 70 per cent of the equity and New Zealand residents own 30 per cent. What happens if the shareholders of XYZ Limited decide to move the company's base overseas?

Moving the corporate headquarters of the company without uprooting any investment (such as buildings or plant and machinery) from New Zealand, results in a major shift in the composition of ownership recorded in official data. In the example, XYZ Ltd was New Zealand based and had 70 per cent offshore ownership. By moving its headquarters overseas, New Zealand statistics record XYZ Ltd as moving from a net foreign investment in New Zealand of \$2800 to a net foreign investment by New Zealanders abroad of \$1200.

The plant and machinery, the manufacturing processes and everything else remained in New Zealand, and the company was owned by the same people – only its head office and residency have changed.

It is not obvious that either number is a better representation of the "true" nature of the economy's exposure (especially as companies typically relocate because they increasingly have operating activities in a variety of countries). The possibility of such changes suggests that the time-series is less reliable than we would like and that these data should be used cautiously.

Looking specifically at actual merger and acquisition activity in recent years can help give us a more direct indication of some of the flows. Table 3 shows the biggest cross-border equity market deals involving New Zealand listed companies in the past decade (the 10 largest involving inflows, and the 10 largest involving outflows).

Figure 4 and the tables illustrate the growth in large cross-border equity market flows since the late 1990s. By simply summing the two aggregate numbers from the tables, the inflows exceed the outflows by around \$14 billion since 1991. Offshore investor take-overs of New Zealand listed companies have clearly been an important source of capital inflows over recent years.

Example: How relocating a company head office offshore affects the IIP statistics

Before moving offshore:			After moving offshore:		
Offshore investment in NZ	70% of \$4000 =	\$2,800	Offshore investment in NZ		\$0
NZ investment in NZ	30% of \$4000 =	\$1,200	NZ Investment in NZ		\$0
NZ investment offshore		\$0	NZ investment offshore	30% of \$4000 =	\$1,200

Table 3a
10 largest merger and acquisition deals involving cross-border transactions
Offshore firm acquiring share in New Zealand company

	Date	Target	Acquirer	Acquirer nation	Value NZ\$m
1	Jul 00	Fletcher Challenge Paper	Norske Skogindustrier	Norway	5,965
2	Mar 01	Fletcher Challenge Energy	Shell	United Kingdom	2,895
3	Aug 96	Brierley Investments	Malex Industries	Malaysia	2,030
4	Apr 95	Carter Holt Harvey	International Paper	USA	1,750
5	Mar 93	Fletcher Challenge Methanol	Methanex	Canada	1,725
6	May 96	Trust Bank New Zealand	Westpac	Australia	1,275
7	May 99	Contact Energy	Edison Mission Energy	USA	1,215
8	Aug 01	Montana Group	Allied Domecq	UK	1,080
9	Apr 98	Lion Nathan	Kirin Brewery	Japan	925
10	Mar 96	Brierley Investments	Delham Investments	Singapore	805
		TOTAL			19,665

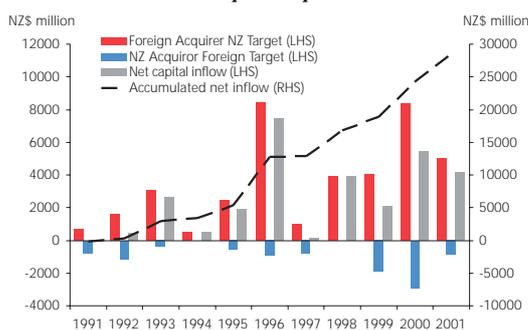
Table 3b
10 largest merger and acquisition deals involving cross-border transactions
New Zealand firm acquiring share in offshore company

	Date	Target	Acquirer	Target nation	Value NZ\$m
1	Nov 99	AAPT	Telecom	Australia	1,480
2	Jun 00	Ansett Australia	Air New Zealand	Australia	925
3	Jul 92	National Breweries	Lion Nathan	Australia	685
4	Oct 00	AAPT	Telecom	Australia	570
5	Jul 91	Cape Horn Methanol	Fletcher Challenge	Chile	485
6	Sep 00	CSR	Carter Holt Harvey	Australia	455
7	Feb 95	Bowater Industries	Carter Holt Harvey	Australia	375
8	Sep 96	Ansett Australia	Air New Zealand	Australia	375
9	Jun 97	Australian Newsprint	Fletcher Challenge	Australia	330
10	Dec 96	John Fairfax Holdings	Brierley Investments	Australia	295
		TOTAL			5,975

Source: CSFB, Bloomberg

These numbers are likely to overstate the level of new offshore investment in recent years because in many cases a significant proportion of the acquired shares may already be in foreign ownership (the Fletcher Challenge letter shares were a well-known example). However, much of that foreign ownership is likely to have been built up in a series of smaller inflows earlier in the decade, which are not captured in these numbers.

Figure 4
Cross-border M&A activity (NZ\$ million)
(includes estimates of impact of privatisation)



Source: Statistics New Zealand, Treasury, and RBNZ estimates.

These numbers refer only to activities involving companies already listed on the New Zealand Stock Exchange. Privatisation of state-owned assets also needs to be factored in. These sales have raised around \$19 billion since the late

1980s, of which offshore investors are estimated to have purchased around one half.¹¹

This discussion has abstracted from the issue of how merger and acquisition activities have been financed. Understanding financing structures is important for trying to understand the short-term impact of take-over activity on the exchange rate, for example, but is much less important when thinking about longer-term systemic issues and vulnerabilities. Internationally, it is normal (although not universal) for overseas controlling interests in local companies not to be hedged, and we understand that this is the case in New Zealand too.¹² Equity stakes are rather different from debt: owning a company, or even a stake in it, gives the owner a claim to the earnings on real assets (operational businesses). Over time, holding equity provides a high degree of natural hedging: for example, if it involves a stake in a company operating in the tradables sector, where the New Zealand dollar value of the business will itself be somewhat responsive to movements in the exchange rate. Nonetheless, many companies are not in the tradables sector at all, and even for those that are, the real (foreign currency) value of their New Zealand investment typically fluctuates with the movements in the value of the New Zealand dollar.

¹¹ Our estimate is based on Treasury data, but should be treated as indicative only.

¹² This is of course quite distinct from the question of whether the management of the firm hedges the foreign exchange flows in the operating company itself.

4.2 Corporate bonds

Of late, foreign investment in the large and relatively liquid US corporate bond market has been an important source of funding for that country's large current account deficit. However, the New Zealand corporate bond market is quite small and relatively unimportant as a vehicle for overseas investment in New Zealand. At the end of 2000 there was approximately \$7.5 billion of corporate debt on issue, and there were fewer than 30 issuers (compared with the \$25 billion of government debt on issue). Of this, only about \$2 billion was held by non-resident investors.

Each month, the Reserve Bank surveys non-resident holdings of non-government bonds (see figure 5).¹³ The proportion of private sector securities owned by offshore entities has fluctuated over the past 5 years. Foreign ownership rose strongly from 1995-97, when interest rate differentials were at their widest, but has dropped in recent years. In any event, the level of offshore investment in this market was always small, and these modest fluctuations do not contribute much to our understanding of the broader trends and exposures.

Figure 5
Offshore ownership of New Zealand private sector debt



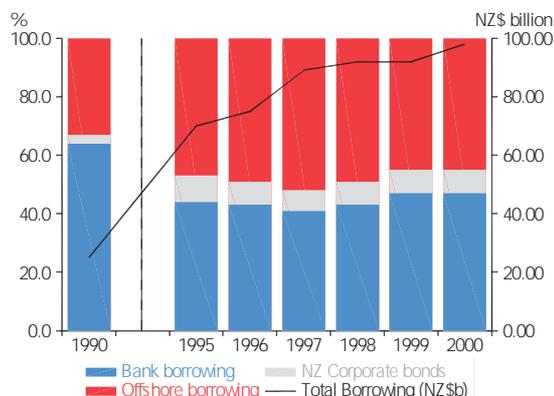
Source: RBNZ

4.3 Non-bank corporate borrowing

Larger local corporates can borrow directly from abroad, typically in foreign currency. Figure 6 suggests that, over the decade as a whole, the corporate sector has increased the foreign share in its total borrowing, placing less reliance on domestic bank financing now than in the past. Again, it is

worth highlighting that most foreign currency borrowing is hedged – some naturally (given the cash flows of the underlying business, such as export revenue), and some using derivatives (by finding a foreign investor willing to take an exposure to the New Zealand dollar). Given the major changes in the corporate sector over the decade, however, it is probably unwise to draw strong conclusions from these data.

Figure 6
Business (non-farm) borrowing



Source: RBNZ

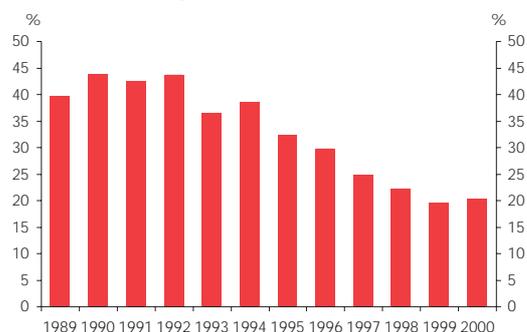
4.4 Government borrowing

A decade ago, around 45 per cent of the New Zealand government's net debt was owed to non-residents. Today that figure is around 20 per cent.

In 1990, almost all the foreign claims on the New Zealand government took the form of foreign currency debt. The government's net foreign currency debt was then \$16 billion, equivalent to 22 per cent of GDP and a considerably larger proportion of total net foreign claims on New Zealand at that time. By late 1996, that net foreign currency debt had fallen to zero, as part of a deliberate strategy to reduce the Crown's direct exposure to exchange rate fluctuations. Privatisation proceeds and substantial fiscal surpluses were used to achieve this. But New Zealand continued to run current account deficits, so the resulting \$16 billion outflow had to be replaced by other forms of external capital.

¹³ The survey includes holdings of the limited number of local bank bond issues, which are not included in our other measures of the corporate bond market.

Figure 7
Public sector net external liabilities
(as a share of total public sector net debt)



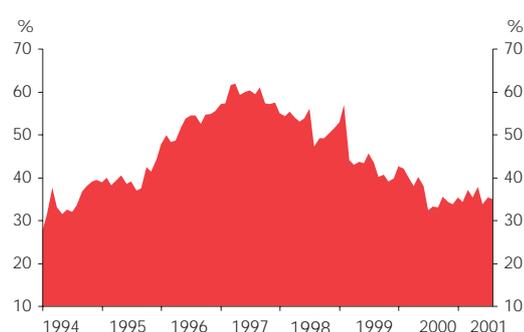
Source: Statistics New Zealand

One form was direct foreign purchases of New Zealand dollar government bonds and Treasury bills issued locally. The market for government bonds is the most liquid debt market in New Zealand (and there is currently \$26.3 billion of government bonds and treasury bills on issue). However, a decade ago there were few foreign holdings of domestic government securities.

Between 1993 and 1996, offshore holdings of government securities increased very rapidly, as interest rates here rose to levels well above those in other comparable countries.¹⁴ At their peak in 1997, foreign holdings made up almost 60 per cent of the total government securities on issue, representing a substantial inflow of capital during those years (roughly \$11 billion). Some of those holdings are themselves hedged, and that proportion fluctuates through time, but most probably involved institutional investors taking an outright exposure to the New Zealand dollar.

Figure 8 shows how the amount of foreign ownership of New Zealand government debt has changed in recent years.

Figure 8
Proportion of government securities owned by offshore investors



Source: RBNZ survey

Investors have clearly become less willing to hold New Zealand government securities since 1997, resulting in a net outflow of around \$6 billion between 1996 and 2000. The most likely explanation is that, for most of that period, the gap between New Zealand and foreign interest rates was generally closing. Over the same period, the exchange rate has also fallen sharply, making outright New Zealand dollar investment appear less attractive. Again, given that New Zealand's total claim on world savings has continued to increase this net outflow needed to be replaced.

Table 4 highlights the decline in offshore investment in New Zealand government securities.

4.5 Bank borrowing

The slack has been taken up by local banks. New Zealand banks now rely heavily on foreign funding, and much of it is delivered through their parent, or related entities. Figure 9 illustrates the increase in offshore funding by local banks. In just over three years total bank funding from non-resident

Table 4
NZ government debt owned by offshore investors (\$m, March years)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Bonds	2,860	4,309	7,396	7,475	11,375	11,631	10,779	9,655	7,913	8,481
(%)	(17.3)	(23.5)	(37.1)	(39.5)	(62.3)	(64.6)	(59.7)	(47.1)	(39.3)	(41.6)
Bills	619	2,932	2,875	4,046	3,511	2,934	1,998	651	714	695
(%)	(13.9)	(45.6)	(46.8)	(56.5)	(41.1)	(40.1)	(29.3)	(11.9)	(13.1)	(11.8)
Total	3,479	7,241	10,271	11,521	14,886	14,565	12,777	10,306	8,627	9,176
(%)	(16.6)	(29.2)	(39.4)	(44.2)	(55.5)	(57.5)	(51.4)	(39.7)	(33.8)	(34.9)

Source: RBNZ

¹⁴ Changes to withholding tax arrangements in 1993 also helped facilitate new interest and activity.

Figure 9
Bank foreign borrowing
(per cent of total bank borrowing)



Source: RBNZ

sources has doubled from around \$30 billion to around \$60 billion (inevitably concentrated on the balance sheets of a small number of institutions). Recall that the country's overall dependence on foreign capital is around \$88 billion. The foreign currency borrowing component has more than doubled (from just under \$17 billion in 1998 to just under \$38 billion in August 2001, although some of this increase simply reflects the fall in the exchange rate over the period).

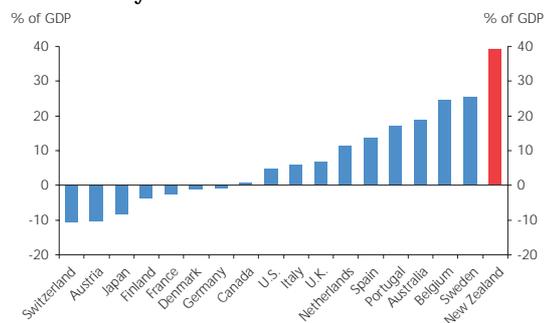
Banks' ability to raise New Zealand dollars directly from abroad comes and goes. In periods when New Zealand had relatively high interest rates, banks were able to attract very substantial volumes of retail deposits in Asia (typically channelled through to the New Zealand bank through an associated company operating in those markets). That activity has shown some signs of picking up again recently as the gap between New Zealand and overseas interest rates has begun to widen this year.

To raise foreign currency funding, some local banks tap international capital markets directly, but others borrow predominantly or exclusively through their overseas parents or associated entities. An individual bank chooses to tap the foreign currency market largely because it is the cheapest on offer at the time the funds are required. At a system-wide level, however, the bank foreign currency borrowing is something of a residual item – it rose very rapidly in the period in the late 1990s when the current account financing requirement was high, and there were net reductions taking place in other forms of foreign financing of the New Zealand economy, notably foreign holdings of government securities.

Both Statistics New Zealand and the banks' own disclosure statements indicate that hedging activity enables the banks to manage their exposures in such a way that they face virtually no foreign exchange risk. (Box 1 describes how swaps and forwards are used to do this hedging.)

The fact that a good deal of banks' funding is sourced from offshore in foreign currency, without exposing banks to foreign exchange risk in the normal course of business, is a reflection of the opportunities created by financial liberalisation, and in particular by product innovation. Twenty years ago, when swaps were in their infancy, this sort of activity would simply not have been possible. Even in a liberalised market, banks would have found it much more difficult to find for themselves sufficient investors who were willing to invest in New Zealand dollars with a New Zealand institution. Nonetheless, as we note below, opportunities that increase flexibility also tend to bring with them some risks.

Figure 10¹⁵
Financial system net external liabilities



Source: Standard and Poors.

The international comparisons are interesting. As figure 10 shows, across all the developed economies, the New Zealand banking system is the one with the largest dependence on foreign sources of finance. Looking closely at the data also reveal that in recent years the New Zealand banking system's reliance on foreign funding has increased faster than in other countries.

¹⁵ In the source data for the latest year, Cyprus shows a materially larger number than New Zealand. However, the Cypriot numbers appear to be very volatile and accordingly we have excluded them from the graph.

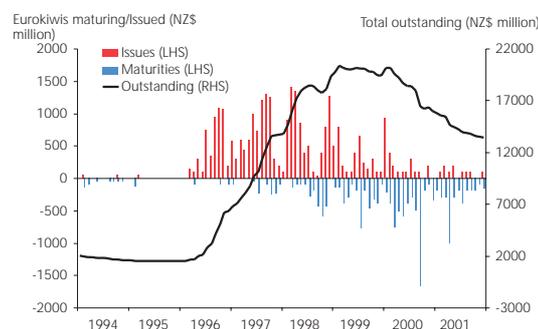
4.6 Eurokiwis¹⁶

So where does the eurokiwi market fit into all this? This somewhat esoteric market achieves considerable prominence from time to time, but its place in financing New Zealand's demand for foreign capital has not always been well appreciated.

The eurokiwi market developed in the mid-1980s following the liberalisation of New Zealand financial markets, but then activity died away and the market only returned to prominence in the mid-1990s. Put simply, a eurokiwi is a New Zealand dollar bond issued, typically by a non-New Zealand borrower, to investors based outside New Zealand. This market provides offshore investors with an opportunity to invest in New Zealand dollar-denominated bonds issued by borrowers they are familiar and comfortable with.¹⁷ However, unless the borrower is a New Zealand company, buying a eurokiwi bond does not typically result in an investment flow into New Zealand – one set of foreigners is borrowing from another set of foreigners.

That does not mean these bonds are unimportant for New Zealand. In fact, they play a significant part in the overall story. They provide a way of tapping the interest of some investors who are willing to be exposed to the New Zealand dollar but who would otherwise have no easy way of doing so. The foreign issuer is able to raise New Zealand dollars but has no need for them, and does not want to be exposed to fluctuations in the value of the New Zealand dollar. Instead, in effect, local banks take on the New Zealand dollar exposure, in exchange for the foreign exchange risk they

Figure 11
Eurokiwi issuance, maturity, and amount outstanding



have incurred on their own foreign currency borrowings. Eurokiwis should be thought of as one (and only one) source of New Zealand dollar hedging – in particular, to enable the banks to hedge their substantial foreign currency borrowings discussed above – rather than directly as a net additional capital flow to New Zealand residents.

As table 5 shows, the level of eurokiwis over 1996-98 was so strong that this retail demand – to hold New Zealand dollar assets at the then relatively high interest rates – was sufficient on its own to enable New Zealanders to hedge all their net new foreign financing requirements for those years.

The outstanding stock of eurokiwis peaked above \$20 billion in late 1998, but issuance of this form of debt has reduced sharply in recent years. Currently only \$13 billion remains on issue, representing a significant reduction in the willingness of that portion of the investor community to provide the ongoing demand for New Zealand dollars that is needed.

Table 5
Net eurokiwi issuance and the current account deficit

(\$ million)	1994	1995	1996	1997	1998	1999	2000	2001
Eurokiwi net inflow	-415	-75	4,765	7,410	5,665	75	-3,490	-2,560
Current account deficit	-3,085	-4,105	-5,015	-6,015	-5,580	-4,385	-7,390	-5,340

Source: Bloomberg, Statistics New Zealand

¹⁶ See Eckhold (1998) for a detailed description of the eurokiwi market. Note that we are including both euro bonds and global issues in the generic term “eurokiwi”.

¹⁷ The typical investor in this market has been characterised as the “Belgian dentist” – a relatively well off European retail investor who is seeking high, but relatively safe, returns on their investment. An example of such a borrower would be a well-regarded German bank, a supranational organisation such as the World Bank, or an internationally known financing company such as Ford Motor Credit.

Investors in eurokiwi bonds typically became less interested in New Zealand eurokiwi bonds from 1998 as the gap between New Zealand and offshore interest rates decreased markedly. The sustained fall in the exchange rate probably also played a role – many investors in eurokiwis may have found that the actual returns they achieved were not particularly attractive (although the New Zealand dollar has depreciated less against the euro than against many other currencies).

5 Possible points of vulnerability

So far, this article has focused on trying to identify and better understand the forms that net capital flows into New Zealand have taken over the last decade or so. But it is also important to stand back and ask whether the financing structures or related issues bring to the fore any systemic vulnerabilities for the economy and/or financial system of New Zealand. It is perhaps worth stressing that, since capital account liberalisation 17 years ago, the increasingly large external financing requirement has been met remarkably smoothly, and in a series of different forms, through a variety of international crises and changing domestic economic conditions.

However, the perennial question for policy analysts is ‘what are the types of potential shocks associated with capital flows, or points of vulnerability, that policy-makers should be alert to?’ What, in other words, might the picture look like if circumstances were to take an unpropitious turn? Without automatically presuming that there are problems, central bankers should always start prodding and probing when financing structures or behaviours look very different from international norms, or when structures and stocks change very rapidly in a relatively short space of time. Low probability – but potentially threatening – events tend to be a focus of central banks’ financial stability analysis.

Where might the “probing and prodding” points be in New Zealand? A number are highlighted by the analysis in this article:

- We are very heavily reliant on foreign capital, more so than any other developed economy, and that

dependence has increased sharply in the last decade.

- A very large proportion of the financing now takes the form of (hedged) foreign currency financing, mainly in the form of debt: again the numbers stand out against international averages.
- That borrowing is undertaken through a relatively small number of banks whose ability to tap the international markets, and to continue effectively to hedge the foreign currency risks, is likely to be closely linked to (a) their own financial health, and (b) the financial health of overseas parents.
- New Zealand is a small economy, with few “natural” foreign holders of New Zealand dollar assets.

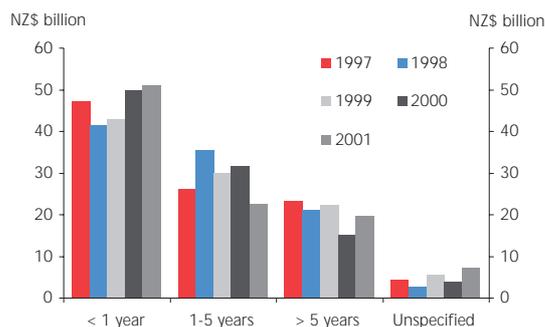
One set of issues relevant across all countries relates to the composition of capital flows. Several dimensions may have a bearing on the potential vulnerabilities including: the maturity structure, the relative proportions of debt and equity, and the currency the liabilities are denominated in. The conventional wisdom is that the risk of financial instability tends to increase as a) the proportion of short-term liabilities increases, b) the proportion of debt (versus equity) increases, and, c) the greater the proportion of liabilities denominated in foreign currency.

Of course, these are simple rules of thumb, not immutable laws of nature. They do not always hold. For example, long-term debt can be more ‘sticky’ than equity (in both term and price): an investor’s equity stake could be short-term in nature, while long-term debt holdings might be part of an overall relationship between highly-integrated foreign parents and local subsidiaries. Even if the underlying equity exposure is retained – and it can often be difficult to offload large or controlling interests quickly – equity holders may move to hedge themselves against currency risk if they fear that the exchange rate is vulnerable to a fall. That sort of selling could exacerbate any pressures on the exchange rate.

Figure 12 illustrates the relatively short-term nature of New Zealand debt liabilities (on a residual maturity basis). As at March 2001, approximately 50 per cent of the debt had a remaining term to maturity of less than one year. There also appears to have been a modest increase in the share of short-term debt. The greater the share of short-term maturities the more exposure there is to rollover risk (ability to renew

the transaction when it matures), both on the instrument itself and on the hedging contracts associated with foreign currency borrowings. This latter risk is perhaps a more likely point of vulnerability than the former, because the markets are less deep.

Figure 12
New Zealand international debt maturity structure



Source: Statistics New Zealand

So long as lenders have confidence in the New Zealand economy – including the macroeconomic framework and policy settings, and the creditworthiness of borrowers – these risks should remain relatively low. Indeed, we are not facing an incipient crisis, and in a sense, this highlights what is probably the real issue for New Zealand, which is our heavy dependence on international capital and our (highly positive) ability to continue to hedge ourselves against assuming unwanted direct foreign currency exposures. This dependence, and associated reliance on hedging, may mean that the New Zealand economy, and the New Zealand dollar, could become more vulnerable if:

- the economic fundamentals, and the quality of bank and corporate sector assets, were to deteriorate materially, or
- there was to be - for whatever reason - a widespread retreat from the ready international cross-border flow of capital, or
- risk aversion increased markedly in respect of peripheral indebted countries more generally.¹⁸

¹⁸ All countries that borrow internationally face the same *potential* risks – it is our relatively high level of indebtedness that make us relatively more vulnerable than many other developed countries.

The direct credit risk of lenders not being repaid is largely, and very closely, linked to the quality of assets on bank and corporate balance sheets. A strong risk management culture in New Zealand banks, and overseas parents, is a helpful buffer in this respect. However, in the unlikely event that the quality of assets did drop materially (and particularly if bank or corporate credit ratings were to fall markedly because of such a deterioration), then the dependence on foreign financing could exacerbate any domestic problems. (For example, swap agreements can contain provisions under which the swaps can be unwound immediately if the counterparty drops below a certain credit rating, leaving a borrower with, say, an unhedged foreign exchange exposure at just the time when its balance sheet and profits were already under pressure.)

Relatively small shifts in foreign investors' portfolio allocations to New Zealand can have quite a large influence on New Zealand capital markets because of the small size of our markets, and because of the large size of the portfolios of global investment funds. That can work both ways, and this article has highlighted the sheer scale of some of the swings in the way in which our external financing requirements have been met in the last decade or so without causing any particular problems.

It is a somewhat open question as to why foreign investors are as willing as they seem to have been in allocating a portion of their portfolio to New Zealand. New Zealand is in very few of the investment "benchmarks" against which the performance of international funds managers is measured: that means there is little "natural" or near-automatic demand for New Zealand dollar assets among the professional funds management community. Therefore, any investment in New Zealand (and especially in New Zealand dollars) is less likely to be held in a time of financial difficulty than an investment in a country that is included in international investment benchmark guidelines. The aura that surrounded the economic reforms that began in the mid-1980s may have played some part in attracting capital in the early days, but the main reason for continued investment demand has tended to be the relatively high yield offered on New Zealand assets compared to those in other developed countries. In this sense, New Zealand has attracted international investors into New Zealand dollar assets. We have been able to tap

international debt markets, and find buyers for equity stakes too.

One way to gauge the level of exposure to the risks associated with capital flows is to look at both gross and net capital flows. Gross flows reflect the decisions of many agents about the levels of risk they are willing to take, the desired structure of their portfolios, etc. Net flows indicate the current account funding requirement in any particular year, but don't necessarily provide a sense of the scale of the underlying flows. If the flows into a country exactly match the flows out of a country, the net flow is zero (or, as is the usual case, they do not match and there is a net inflow or outflow).

A numerical example illustrates why relatively small changes in asset allocation decisions could affect the price, volume and direction of capital flows (see table 6). While net flows appear moderate (six per cent of net outstanding external obligations, three per cent of gross exposures), gross flows in a particular year easily account for more than a third of the stock of outstanding net external obligations. A relatively small change in foreign investment in New Zealand, could, in adverse circumstances, have a large impact on asset prices (including the exchange rate).

All these sorts of risk should be kept in perspective. It would probably take a quite extreme scenario, in which the fundamental state of our economy had already deteriorated badly, for the inflow of capital to simply dry up. In most plausible scenarios, the 'tap' would not be turned off, although some markets and financing sources might become unavailable if, for example, New Zealand's credit rating dropped below minimum thresholds for many classes of international investors. In the first instance at least, the

volume of capital available for bank or corporate funding would probably continue to be available, but it might not be available at the price the bank (or company) wanted to pay. That is, the pressures might show up predominantly in prices rather than volumes. Of course, even if finance was still available, a sharp increase in the cost might itself prompt relatively sharp dislocations to underlying spending and borrowing patterns in the economy. All this ultimately highlights the need for continued attention to maintaining credible economic policies, a solid economic performance, and a strong asset quality and risk management framework in the banking and corporate sectors. These things become that much more important when one is heavily dependent on other people's money – as for individuals, so also for economies in aggregate.

6 Conclusion

This article has discussed the potential risks and vulnerabilities that arise from New Zealand's high level of dependence on foreign capital. Its purpose has been less to reach conclusions, as to begin to open up the issues. It is important to understand that identifying vulnerabilities and understanding risks is not a prediction of future events, nor even a judgement that New Zealand would have been 'better off' if the risks had not been taken. Understanding the flows, the financing structures, and the motivations of the investors on whom we rely will be integral parts of our ongoing work programme in thinking about possible areas where the New Zealand economy and financial system might (with a low probability) become vulnerable. Future *Bulletin* articles are likely to refine and extend the analysis.

Table 6
Total capital flows (year to March 2001)(\$m)

Total inflows	17,215
Total outflows	12,156
Total gross flows	29,371
Net (in)flows	5,059
Net International Investment Position	-86,533
Gross foreign claims on New Zealand	-164,298

Source: SNZ and RBNZ estimates

Box1: Generating NZ dollars in the offshore markets to fund local lending

As noted, domestic banks have come to rely increasingly on offshore investors for the funds that they lend to New Zealand businesses and households. Banks wish to avoid the risk that the exchange rate may depreciate, as that would expose them to very large losses which could not be recouped from New Zealand dollar borrowers. One way that banks can avoid this risk is through the basis swap market, as described below.

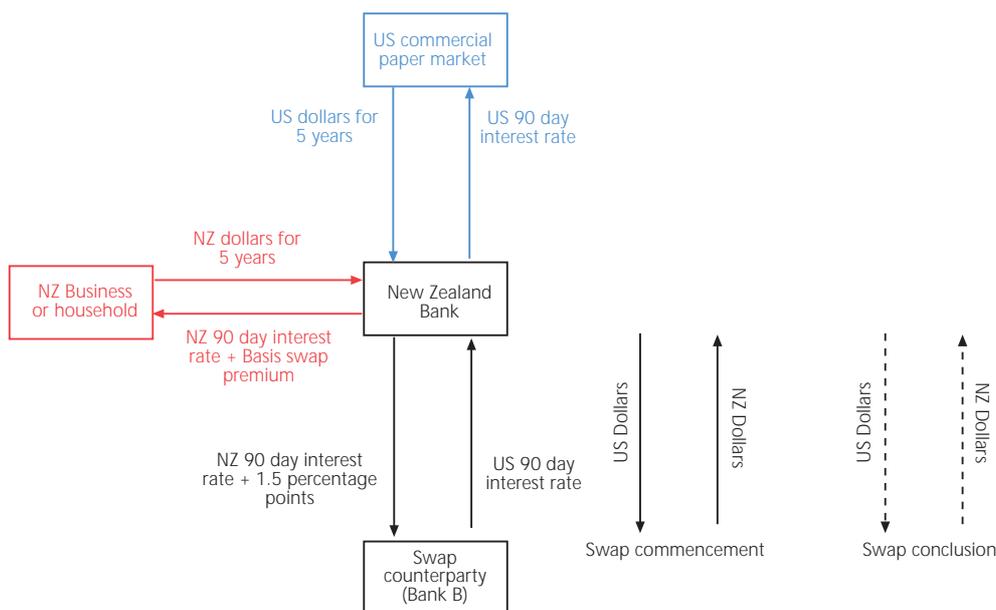
In this example, the domestic bank, "New Zealand Bank" (NZB), lends money to a New Zealand business at a floating interest rate (the 90 day bank bill rate plus a margin) for five years (shown in red in the diagram). To fund this lending, NZB borrows US dollars for five years from the US market at a floating interest rate (shown in blue). This is the "core" business of the bank - the rest of the diagram is about avoiding the exchange rate risk.

In the basis swap market, NZB enters into an agreement with Bank B. At the commencement of the agreement,

NZB lends their US dollars to bank B, who agree to pay US 90 day interest rates to NZB. At the same time, Bank B lends NZ dollars to NZB at the NZ 90 day interest rate plus a margin (the basis swap premium). By doing this, NZB has swapped the currency basis of their funding from US dollars to NZ dollars (hence the name "basis swap"), and has passed on the currency risk to Bank B. At the end of the five year period, both banks repay each other the NZ dollars and US dollars that they have borrowed from each other (at an exchange rate that was agreed to at the commencement of the deal). NZB benefits from this transaction by eliminating the foreign exchange risk. Bank B benefits because they receive a higher interest rate on their New Zealand dollars than they would otherwise have done (because they receive the basis swap premium).

Foreign exchange forwards provide another way for banks and others to hedge a foreign exchange exposure. A forward contract is one where two parties agree now to exchange currencies at a rate determined now at some date in the future. By fixing the rate at which they will exchange the currencies in the future, this removes the risk of an unfavourable exchange rate movement.

Figure 13
New Zealand banks



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