

Monetary policy and the structure of the capital account: the New Zealand experience

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This paper was prepared for presentation to the Thirteenth Pacific Basin Central Bank Conference, held at Los Cabos, Mexico, November 7-11 1998. The theme of the conference was "Monetary policy and the structure of the current account."

1 Introduction

The issues sketched in the outline that accompanied Governor Ortiz' invitation to this conference have a familiar ring to them. Certainly in New Zealand we have been spending a lot of time and effort trying to understand a surge in international demand for New Zealand dollar (NZD) assets that occurred between 1993 and 1997, and considering what if anything policy should have been doing about it.

I say surge in demand for NZD assets rather than capital inflow because, with a floating exchange rate, the investment demand showed up in the first instance in sustained appreciation of the NZD. Of course, the current account deficit, and hence capital account inflow, did, in due course, increase, to the equivalent of 7.7% of GDP for the year ended December 1997. A current account deficit at that level put us about top of the current account deficit league table¹.

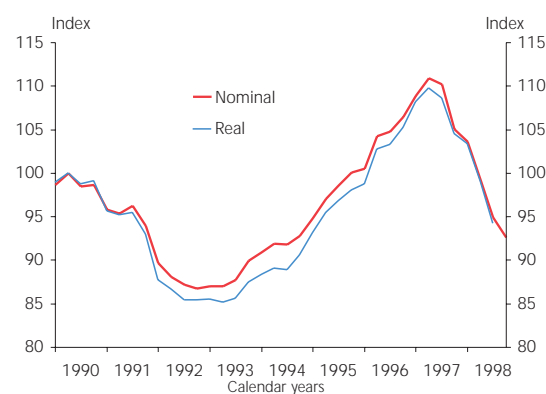
More recently, the capital flows, and hence exchange rate pressures, have turned around. The NZD, after appreciating in trade-weighted terms by nearly 30 percent between the beginning of 1993 and April 1997, has since lost most of that ground. In other words, the strong demand we saw for NZDs between 1993 and early 1997 has just about completely dissipated.

In this paper I will outline the factors that we think were at play in this cycle, the kinds of stresses they created in the New Zealand economy, and the sorts of policy dilemmas we found ourselves facing.

* Graham Howard made a significant contribution to this paper, particularly with respect to data and charts.

¹ Since end 1997, the current account deficit has narrowed a little, to 6.7% of GDP for the year ended June 1998. It is forecast in the Reserve Bank's latest *Monetary Policy Statement* (August 1998) to narrow further, to between 4 and 5 percent of GDP in calendar 2000.

Figure 1
The nominal and real exchange rate (trade weighted)
Indexes based to 1990 = 100



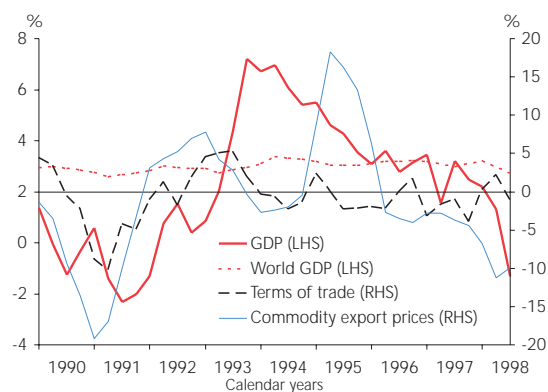
2 The up side of the cycle

What was behind the upsurge in demand for NZDs? Here a number of factors seem to have been at play.

First, and perhaps foremost, from about 1993 the New Zealand economy moved into a period of solid and prolonged upswing. The initial driving forces were growth in exports (assisted by a competitive exchange rate, a growing world economy, and improved primary commodity export prices), and strong growth in business investment. Close behind, private consumption picked up, and there was a surge in immigration which put pressure on residential real estate markets. And commencing mid-1996 fiscal policy was eased, by way of tax cuts. The fiscal easing was seen as appropriate given that the fiscal balance had moved into surplus in 1994, and the outlook, at least as seen at the time, was for the surpluses to keep growing. (In the event, latest projections indicate a temporary return to deficit, albeit a modest deficit. This partly reflects a more recent increase in government spending, but also suggests that some of what was seen as a structural surplus was more cyclical in nature.)

Figure 2
Real GDP, terms of trade and commodity prices

Annual percentage change



Mirroring the strong expansion in economic activity was rapid growth of bank lending, largely to the household sector.

As early as 1994 it was evident that the economy was nearing its potential and that tighter monetary conditions were required. Between early and late 1994, short-term interest rates were increased from under 5 percent to nearly 10 percent. But the economy showed surprising resilience in the face of this monetary tightening. Activity seemed to be sustained by a high level of confidence – perhaps even a degree of “exuberance” – about the medium-term prospects for the New Zealand economy. The residential real estate market in particular developed a strong momentum – of the nature we have come to associate with asset markets.

To restrain inflation pressures, monetary policy needed to be held firm for an extended period and, for over four years, New Zealand interest rates were high compared with those

Figure 3
Consumer price inflation, house price inflation and credit growth

Annual percentage change

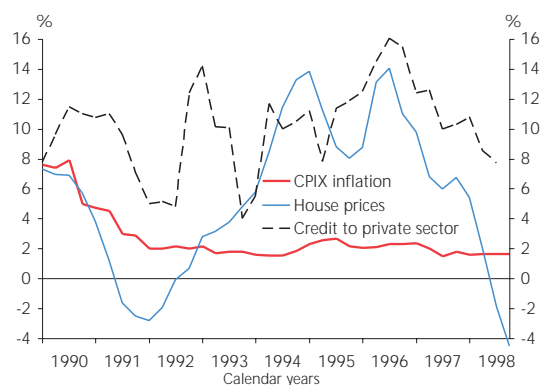
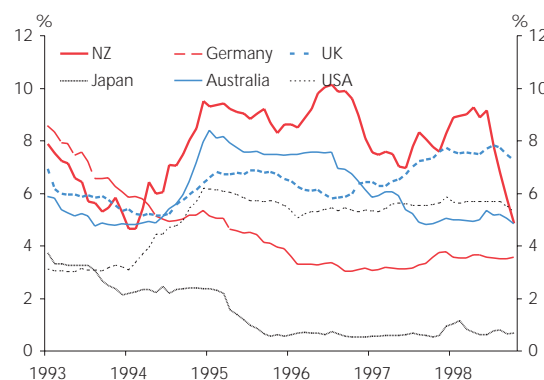


Figure 4
90 day interest rates



prevailing in the rest of the (low inflation) world.

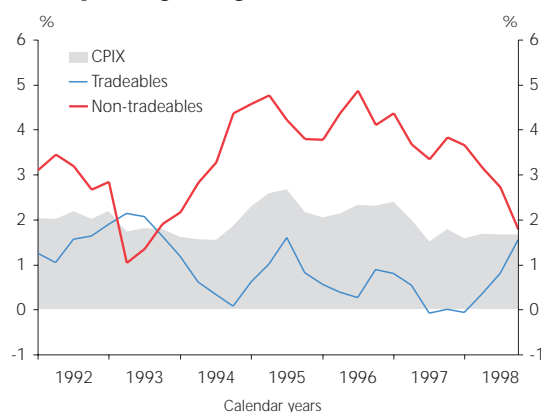
In these circumstances, it was hardly surprising that the NZD appreciated. Indeed, it would have been surprising if it had not. After all, textbook theory tells us that one of the channels through which a monetary tightening works in an open economy is by appreciating the exchange rate. The exchange rate appreciation lowers the price of foreign goods and services relative to domestic goods and services, and turns demand, both domestic and foreign, away from domestic production. This takes pressure off domestic production, and additionally helps restrain inflation by lowering more directly the prices of imported (as well as import-competing and exportable) goods and services.

But for New Zealand in the period 1993-97, the pressure on the exchange rate was not solely the result of tight monetary policy responding to domestically generated inflation pressures. It was also a time when international confidence in the New Zealand economy was at a high point. New Zealand's economic reforms were receiving a lot of positive international exposure, and this exposure doubtless contributed to New Zealand becoming an attractive destination for international capital. Given the smallness of our economy – New Zealand's GDP, for instance, is only 15 percent of that of Australia, and 1.5 percent of that of Japan – relatively small shifts in international investors' portfolio allocations in respect of New Zealand can have a major impact on our capital markets.

Some indicators of just how significant foreign capital flows were include that:

- between early 1994 and early 1997, the non-resident

Figure 5
Tradeable and non-tradeable inflation
Annual percentage change



share of New Zealand government security holdings increased from 27 percent (out of NZD24.9 billion) to 61 percent (out of NZD 24.8 billion);

- in the same period non-resident investors' share of the market capitalisation of companies listed on the New Zealand stock exchange increased from about 45 percent to 61 percent (after having been as low as about 25 percent in the early 1990s);
- in the two and one half years from early 1996 to mid 1998, approximately NZD 20 billion of NZD denominated securities were issued to offshore (mainly retail) investors by (mainly) offshore issuers. The investors in these securities, who were mainly from Europe (so-called euro-kiwi issues) and Japan (samurai bond issues), were attracted by the high NZD interest rates relative to those available in their own markets. These offshore issues of NZD paper generated upward pressure on the exchange rate, since the subscribers had to acquire the NZDs to invest. It also resulted in a large pool of non-resident-held NZDs available for New Zealand institutions to tap through the swaps market. By accessing this market, New Zealand institutions were able to raise NZD funding more cost effectively than in the local market. The attractiveness of this source of funding for New Zealand institutions is reflected in the fact that between June 1996 and August 1998, over half of the net increase in deposit-taking (M3) institutions' funding was raised from non-resident sources.²

² For a comprehensive description of the euro kiwi bond market, and its implications for the New Zealand capital markets, exchange rates and economy more generally, see K Eckhold (1998).

This strong international investor demand had the effect of shifting much of the effect of monetary policy restraint from interest rates to the exchange rate channel. Investor demand for NZD assets had the effect of pushing the exchange rate up, and tended to push interest rates down. In consequence, interest-sensitive domestic expenditures (particularly in the residential real estate market) were not quelled as much as was hoped, while the tradeables sector of the economy was squeezed hard. These disparate pressures on the economy were reflected in low inflation in the tradeables sector and higher inflation in the non-tradeables sector.

Of course, there would be no issue here if resources could move freely between the tradeables and non-tradeables sectors of the economy. If that were so, resources freed up as the result of the exchange rate pressure exerted on the tradeables sector of the economy would quickly flow to, and help ease the excess pressure on, resources and prices in the domestic-oriented sectors of the economy. But we know that this is scarcely the case. Capital and labour in, for example, the farming sector, which in New Zealand produces predominantly for export markets, cannot be re-deployed quickly, if at all, to meet the demand for goods and services of domestic consumers. Adjustment tends to be slow and costly.

Moreover, history teaches us that it is likely only a matter of time before the balance of pressures reverses; that is, before the flow of foreign capital ebbs and imports again have to be paid for by exports, rather than financed with capital inflow. This is precisely what has happened in New Zealand during the last year or so.

3 The downside of the cycle

By late 1996 sufficient evidence was emerging that inflation pressures a year or so ahead would wane, and that an easing in monetary policy could commence. And by the second half of 1997, with New Zealand's export markets in Asia beginning to look less robust, the room for easing increased. New Zealand interest rates began to come back to the levels of our international peer group - and at a time when international capital was beginning to find "boutique" markets like New Zealand less attractive. Meanwhile, the current account deficit had widened considerably, meaning that on the current transactions side too, there were more sellers

than buyers of NZDs. Needless to say the exchange rate began to depreciate, and the depreciation has been even sharper than the appreciation that preceded it.

For New Zealand, however, the downswing has, in some respects, been the more comfortable part of the ride. This is not to suggest that New Zealand has been sheltered from the Asian crisis. On the contrary, the downturn in the world economy, and in East Asia in particular, has had a substantial negative impact on New Zealand. There has been a direct adverse effect stemming from the fact that East Asia takes nearly 40 percent of New Zealand's exports, and also indirectly as the result of falls in the world price of a range of commodities exported by New Zealand. These have been important factors behind the nearly 2 percent contraction in real output recorded by New Zealand during the first half of calendar 1998³.

But we are no longer seeing the tradeables sector of the economy being wrenched in one direction and the non-tradeables in the other. A colleague has suggested that the earlier stage of the cycle felt a bit like having your head in the oven and your feet in the freezer and being told that, on average, you should feel about right. Now the New Zealand economy has both its head and its feet in the refrigerator: it is certainly cooler than we would wish, but at least the stresses between the different body parts are no longer so acute.

Currency and financial sector stability aspects

The downswing has been accommodated with reasonable equanimity for two other reasons:

- there has not been a "speculative attack" on the currency;
- there has not been a financial crisis.

It is worth elaborating on why we think we have avoided these particular problems, problems which have proved to be so devastating in a number of other countries.

³ Other contributing factors have been an El Nino-related drought that caused a significant drop in agriculture sector production and processing, and also the closure of motor vehicle assembly plants as the result of the removal of tariffs on motor vehicle imports into New Zealand.

First, why no speculative attack?

The answer here stems from the fact that the NZD has been floating completely freely since 1985. There has been no intervention at all by the Reserve Bank since the currency was floated in March of that year.⁴ Thus, anyone who has wanted to take a position in, or against, the NZD has been taking a position against other market participants, not against the central bank. This being the case, there has been little incentive to "attack" the currency, since there is no peg to take on and to profit from pushing over.

Our commitment to maintaining such a free float reflects a number of considerations.

First, in mid-1984, we **did** experience an attack on the currency, which **did** result in a "currency crisis". During the course of an election campaign in mid-1984, the markets assessed the prevailing peg to be mis-aligned (over-valued) relative to the fundamentals, and assessed that the opposition party, which was ahead in the political opinion polls, was disposed to devaluing the currency. In these circumstances, a speculative attack on the currency was inevitable. On instruction from the Government, the Reserve Bank intervened, including in the forward market. The intervention continued until foreign exchange reserves were virtually exhausted, and a large (20 percent) devaluation became unavoidable (although not before the outgoing government resorted to closing the foreign exchange market for a couple of days). This experience proved a very expensive one for New Zealand taxpayers, and was something of a defining moment in terms of exchange rate policy in New Zealand.

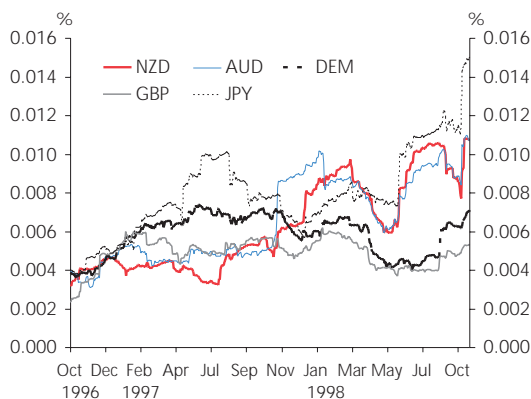
Following the election, which brought to office a new government, monetary policy was tightened with the objective of reducing inflation from the double digit levels that had prevailed for most of the previous decade. However, progress initially was thwarted by capital inflows. Given that the exchange rate was still pegged, at a now devalued level, capital inflows added directly to domestic liquidity, and undermined what monetary policy was attempting to achieve. Dealing with this problem was another important motivation for floating the currency in March 1985.

⁴ Exchange control restrictions, which had been progressively eased over a number of years, were also completely removed (in December 1984).

Since then, the Reserve Bank has not intervened at all in the foreign exchange market. Intervention has not been seen as necessary for market smoothing purposes, nor considered likely to be an effective way to influence the path of the exchange rate “over the cycle.”

Although during the first few years following the float there was some day-to-day and week-to-week volatility in the exchange rate, in more recent years short-term volatility has fallen to quite low levels. The NZD seems to have been no more volatile than most of the major currencies, for which the markets are much larger and deeper than is that for the NZD. This possibly suggests that markets that know that the central bank will not intervene end up doing a lot of market smoothing themselves.

Figure 6
Equity & commercial property prices, and private sector credit
Annual percentage change



We remain doubtful about the efficacy of intervening to influence the course of the exchange rate over the cycle. This is mainly because it seems unlikely that any amount of intervention that we could realistically undertake would stem the tide of potentially very much larger international capital flows. Moreover, in order for domestic monetary control to be maintained, any intervention in the foreign exchange market would have to be sterilised in the local money market. If these two markets were in some way segregated, then it may be possible to bring some independent influence to bear on the exchange rate by intervening in the foreign exchange market. But, with open and integrated capital markets, that is hardly the case.

For all these reasons, New Zealand has committed itself to maintaining a free float. It is a strategy that we think has been central to avoiding a “speculative attack” on the currency during the recent period of international currency turbulence. To be sure, the NZD, like a number of other currencies, has moved through a large cycle, but throughout that cycle the market has been stable and has functioned well.

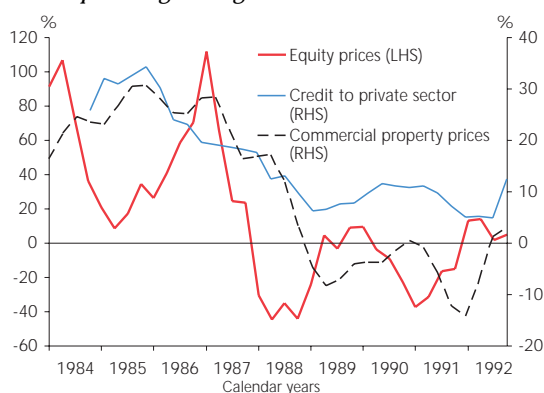
And why not a banking crisis?

Again the answer mostly lies in our recent financial history. New Zealand liberalised its financial markets in the mid-1980s. Indeed, the speed and extent of the liberalisation was, at the time, and may still be, unparalleled. Prior to mid-1984, New Zealand’s financial system was heavily regulated, but by about end-1985 virtually all financial regulations applicable to existing participants had been swept away. (Liberalisation of entry to the banking sector, although announced in 1985, did not take effect until early 1987.)

As has been the experience of a number of other countries that have deregulated their financial sectors, there followed a period of almost unconstrained financial expansion. Banks lent freely, including in an attempt to secure market share before new entrants arrived, and the aggregate stock of bank loans outstanding increased between mid-1984 and mid-1987 by over 100 percent. This credit growth reflected both attempts by banks to secure market share before new entrants arrived, as well as gearing up by borrowers so as to be able to take advantage of new opportunities in the newly liberalised environment. It occurred **despite** monetary policy restraint, which saw short-term (90 day) interest rates peak at over 30 percent in September 1985, and average over 20 percent between February 1985 and May 1987. With an ample supply of funding available, real estate and equity prices skyrocketed, on average by respectively 80 percent and 150 percent between 1983 and 1987. The prices of central business district real estate and investment company equities increased more strongly still.

In short, in the second half of the 1980s New Zealand experienced an asset bubble not dissimilar from those seen more recently in a number of Pacific Rim countries. The bubble was “pricked” by the October 1987 Wall Street “correction”

Figure 7
Equity & Commercial property prices, and private sector credit
Annual percentage change



(which we still call “the crash”), and equity and commercial property prices fell sharply.

There followed a number of large scale, as well as many smaller, corporate collapses. In turn, a number of bank or near-bank institutions, as well as a number of smaller lending institutions, incurred losses which exhausted their capital. However, these financial sector stresses did not develop into a fully-fledged financial crisis, for two principal, and partly related, reasons. First, financial sector stresses were addressed promptly. Generally, solutions were announced at the same time as the problem. The solutions involved either re-capitalisation (by shareholders), or closure (including in the case of one of the largest non-bank financial institutions). Secondly, most of the banking institutions that experienced substantial losses had strong parents – the New Zealand government in the case of the largest bank to become insolvent, and large international parents in the cases of at least two others (in both cases only recently acquired by those parents, in the context of the opening up of the New Zealand banking sector to new entrants).

As a result of the financial sector experience sketched above, the whole culture of credit and risk management in the New Zealand financial sector underwent substantial change in the early 1990s. There was, for instance, a strengthening in bank lending practices, with more emphasis being given to the strength of borrowers’ cash flows, and hence their ability to service debt. Lending primarily against collateral became much less prevalent. Also, the supporting infrastructure for commerce and finance was given an extensive

overhaul, with the enactment of a new body of company law (1990), an insider trading law (1993), new legally enforceable accounting standards (1993), as well as the implementation of real-time-gross-settlement (RTGS) for high value payments (1998) and changes to banking supervision (1989) and (1996).

In the case of banking supervision, initially there was a strengthening of what might be called traditional supervisory tools, specifically the introduction of limits on large exposures and audits of banks’ risk management systems. Additionally a framework was developed for strengthening banks’ public disclosures. Later, in 1996, a number of the more direct supervisory rules, including those just mentioned, were reconsidered and dispensed with. There was a concern that direct supervisory interventions may not be the most effective approach, and may even end up being counter-productive. The concern was that direct official supervision may well weaken the incentives facing banks’ managements themselves to monitor and manage banking risk effectively. Thus a more “incentive compatible” approach was sought. This has taken the form of a further shift in emphasis toward public disclosure, including requirements that banks’ directors regularly publish attestations as to the adequacy of risk management systems. A new, specialised, disclosure regime was developed to replace, for banks, more general and less demanding disclosure requirements which retail (but not wholesale) banks had been subject to under New Zealand securities law⁵.

The banking system has also been strengthened as the result of increased foreign bank participation in the New Zealand market. Indeed, today only one (relatively small regional) bank, out of 19 banking institutions trading in New Zealand, is New Zealand owned. The remainder are wholly, or in one case majority, owned by large international banking groups, mostly headquartered in Australia, the United Kingdom, the USA and Europe. Amongst their ranks are some of the world’s larger, best rated, international banks.

⁵ From 1987 to 1996, a bank deposit was deemed to be a “debt security” for the purposes of securities law. Accordingly, banks that took deposits from the public were required to register (at six monthly intervals), and have continuously publicly available, a prospectus containing financial and other information to assist depositors make informed investment decisions.

This combination of strong parentage, a strong legal and commercial infrastructure, and the lessons of previous experience, has meant that the New Zealand banking system has been well placed to cope with the more recent financial turbulence.

More on the exchange rate and financial system

Two further points relating to exchange rate policy and the banking system are also relevant to New Zealand's recent experience.

First, in the recent cycle, unhedged foreign currency borrowing has not been a source of difficulty, notwithstanding the sharpness of the recent depreciation of the currency. While New Zealand firms and banks have borrowed large amounts from offshore markets (see table 1 below), almost all of that debt has been hedged, either with derivatives, or by way of "natural hedges" in the case of firms with foreign currency export revenues.

Indeed, if there is an exchange rate hedging issue in New Zealand at present, it is that some firms, particularly export firms, have if anything over-hedged. The longer the up-trend in the value of the NZD ran, the more forward cover exporters tended to take. By early 1997, when the exchange rate reached its peak, some exporters had covered forward a substantial proportion of at least 2 years' expected export receipts. These firms, now that the exchange rate has depreciated sharply, are holding large amounts of hedging contracts that are substantially out-of-the-money. The resultant credit exposures for the banks on the other side of the contracts are, in some cases, of such magnitude that they are contributing to credit pressures on the firms involved – especially in those cases where export revenues have fallen below what was anticipated.

Secondly, the maintenance of a floating exchange rate, and hence avoidance of the easy liquidity that would otherwise have resulted from capital inflows, did mean that we mostly avoided capital inflows translating into an asset bubble. While residential real estate prices rose significantly, other real estate, and equity prices, remained more subdued through the latest cycle. And in the case of residential real estate lending, the lending is relatively well diversified and

mostly secured over owner-occupied dwellings. In New Zealand this category of lending has an excellent track record of very low default rates, reflecting the strong attachment that people have to their homes.

The composition of the capital flows

In New Zealand's case, the recorded inflow of capital was spread across the main categories of capital flow: foreign direct investment, portfolio investment and bank/corporate borrowing.

Table 1 overleaf shows that the gross amount of foreign capital invested in New Zealand as of March 1997 comprised about:

- 44% foreign direct investment (FDI);
- 16% non-resident holdings of New Zealand debt securities (almost all of which comprised NZD government bonds);
- 34% borrowing by New Zealand banks and corporations (including by overseas-owned banks and corporates);
- 5% foreign currency borrowing by the New Zealand government (borrowings which fund, and hedge, New Zealand's official overseas reserves).

Having a relatively high proportion of external obligations in the form of FDI certainly will have helped New Zealand weather the changed circumstances in international financial markets since mid-1997. However, even FDI is not immune from changes in sentiment, and at the very least, high inflows of FDI are unlikely to be sustained during periods of international uncertainty and financial dislocation. Moreover, while previous FDI inflows are less likely to be reversed than other forms of capital, it needs to be recognised that overseas stakeholders may well move to protect the (book) value of their investments by hedging in the foreign exchange market. We have seen some evidence of this in New Zealand during the last year or so, something which will have added to the downward pressure on the value of the NZD.

Approximately one third of New Zealand's gross foreign obligations as at March 1997 comprised bank and corporate borrowings. Most of this amount has been raised by generally better rated borrowers and issuers of medium-term notes

Table 1
New Zealand's stock of external obligations and claims

	1993	1994	1995	1996	1997
Obligations to non-residents					
Direct investment			(NZD billion)		
Equity	21.2	27.2	32.0	38.7	41.6
Borrowing from parents	8.3	10.4	10.1	10.3	11.1
Portfolio investment					
Equity	2.4	1.5	2.3	1.7	1.4
Debt	7.8	13.4	14.4	17.7	19.4
Other investment					
Official borrowing	19.5	17.0	13.7	9.7	5.6
Bank & corporate borrowing ¹	33.4	30.4	31.0	36.2	41.1
	92.6	99.8	103.5	114.4	120.2
Claims on non-residents	28.7	32.5	32.4	44.8	47.9
Net obligations ⁶	63.9	67.3	71.1	69.6	72.3
Memorandum item: Nominal GDP	79.1	85.3	90.4	94.6	97.6

and short-term commercial paper in offshore capital markets. Most of the proceeds will have been swapped into New Zealand dollars, or, in other words, covered forward. This means that the currency risk lies elsewhere – including ultimately, for example, with euro-kiwi and NZD samurai bond holders. Moreover, many of the short-term commercial paper issues will be supported by a committed stand-by (which will often be a condition for obtaining a prime rating). These features of the funding structures reduce the vulnerabilities typically associated with short-term foreign borrowing.⁷ In some respects, they put raising capital from the offshore markets onto a similar footing to accessing the domestic market, although it remains, of course, that during periods of stress in the international markets, there is a tendency for borrowers to return to their home market, where their credit-standing is best known. We are seeing some of this in New Zealand at present.

The balance of New Zealand's external obligations comprised mainly non-resident investment in NZD government bonds. These are mostly medium-term (5–10 years) instruments. However, government bond positions are not necessarily as stable as the terms of the maturities of the underlying instruments would suggest. The market is liquid, and positions can be liquidated rapidly. In recent months, we have seen signs of a significant withdrawal from the market by non-resident investors.

What this all suggests is that concerns about absolute levels of foreign obligations, and distinctions between FDI investment, portfolio investment, and short-term borrowing, while important, can be overdrawn. Perhaps as important as, if not more important than the absolute level and composition of foreign capital imported from abroad is the credit standing of the parties involved, the effectiveness of hedging, and the liquidity and flexibility of markets for managing and transferring risk. Certainly it seems in New Zealand's case that these considerations have been important for avoiding financial stress at a time when international sentiment and capital market conditions have turned negative.

4 Policy issues and conclusions

In summary New Zealand, in the 1990s, like many other small open economies, has experienced large swings in interna-

¹ For the purposes of official International Investment Position data, borrowing by New Zealand firms from overseas (financing) subsidiaries is classified as a negative direct investment claim, on the claims side of the ledger. However, as the borrowing in question is, in substance, no different from funding raised directly from non-resident counterparties, these amounts have been included in this table in the "other investment, bank and corporate borrowing" category.

⁷ See Garber (1998) for a discussion of how derivatives provide a means to transform the risks that arise from international capital flows, and how their use can complicate interpretation of balance of payments capital account categories.

tional capital flows. But we have been fortunate enough largely to avoid the sorts of crises that some of our Pacific Rim neighbours have recently encountered. To a significant degree, that more favourable outcome has been the result of having had to address the main sources of vulnerability earlier. Fortunately for us, we also had the opportunity to address them one at a time. We floated the currency in 1985 and resolved weaknesses in the banking system in the early 1990s, two steps that have resulted in New Zealand being much better placed to handle the greater international movements of capital that we have seen during the last few years.

But does this all mean that we have found the second half of the 1990s entirely comfortable? Far from it. The large appreciation, and subsequent depreciation, of the NZD, that has been part and parcel of operating monetary policy to maintain price stability, has caused considerable tension between the tradeables and non-tradeables sectors of the economy. This has been a source of policy discomfort, and concern.

Few policy options for addressing this tension have been forthcoming. The main ones that have been suggested have been to:

- Allow fiscal policy to carry more of the load of macro-stabilisation policy (so that pressure can be taken off monetary policy, and hence interest differentials and the exchange rate). A more activist fiscal policy, however, does not sit comfortably alongside the philosophy that has underpinned fiscal policy in New Zealand of late, which has been that government expenditure programmes should be founded on what makes for quality and efficient delivery of public services in a medium-term setting, and that taxes should be stable and predictable. On-again, off-again, approaches, on either the tax or expenditure side, do not fit with this approach.⁷
- Put some sand in the capital flow gears (say, along the lines of the central bank deposit requirements imposed by Chile, or by using tax policy eg a "Tobin tax" or non-

resident withholding taxes). But we wonder just how feasible those sorts of techniques are any longer. Money is fungible and the possibilities for re-engineering contractual forms are just about infinite. We doubt that the "genie can be put back in the bottle". And even if it could, would the benefits outweigh the costs? Going back to a world where foreign exchange flows are more predominately trade-based – and not overwhelmed by expectation-driven capital market flows – strikes me as being about the equivalent of trying to prohibit corporate equity market analysts from making forecasts, so that share market prices can be driven solely by actual results. It is difficult to see how that could make for a better, more effective, and more efficient market. Indeed, in New Zealand in recent years, the emphasis in the regulatory and tax policy areas has been to remove distortions to markets, including in the cases of markets that cross borders.

- Reconsider our policy of not intervening in the foreign exchange market, despite the considerable benefits that we think a policy of non-intervention has delivered to date. Perhaps we should not be as sceptical as we are on the likely effectiveness of intervention in moving the exchange rate against the market? But our reading of the literature, and of the experience of others, suggests that intervention is probably only effective in nudging markets in directions they already want to go, and not in offsetting the "over the cycle" swings in the exchange rate that we – and others – have experienced. An alternative might be to fix the exchange rate, but that would mean giving up the benefits that come from allowing the exchange rate to absorb external shocks, as well as create the conditions in which speculative attacks can occur.

In short, we have not come up with any "silver bullet" solutions to all the stresses caused by volatile flows of international capital. So we retain a keen interest in the issues and policy possibilities. But for the meantime, it seems to us that the best policy prescriptions revolve around:

- maintaining as stable an internal macro-environment as possible;

⁸ This, of course, does not exclude the operation of the automatic (counter-cyclical) fiscal stabilisers. Rather the issue is whether policy programmes should be adjusted for macro-stabilisation policy reasons.

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- paying careful attention to the corporate and financial infrastructures for intermediating and allocating capital;
 - maintaining flexible – which probably means open – financial markets.

References

Brash, D (1998), 'In a world of open capital markets, how can central banks best help banking systems remain strong?', address to the Asian Pacific Bankers Club Annual Conference, March 1998. In *Reserve Bank of New Zealand Bulletin*, Vol 61, No 2, June.

Eckhold, K (1998), 'Developments in the Eurokiwi bond market', *Reserve Bank of New Zealand Bulletin*, Vol 61, No 2, June.

Garber, P M (1998), 'Derivatives in international capital flow', National Bureau of Economic Research *Working Paper 6623* (June).

St. Clair, R, C Tether, and B White, (1998), 'The intermediation of international capital flows', *Reserve Bank of New Zealand Bulletin*, Vol 61, No 2, June.