Factor income shares and the current account of the New Zealand balance of payments

Paper for Australasian Macro Workshop, Wellington, April 2002

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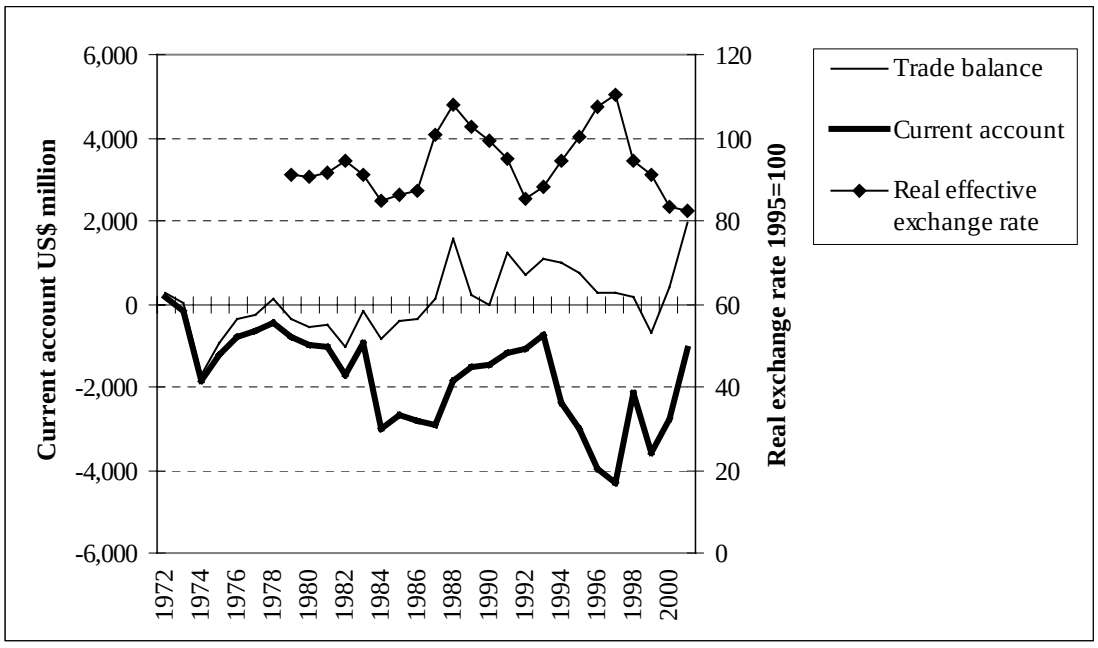
1. Introduction

The research for this paper began with the question whether and how the New Zealand economy could sustainably support the servicing of the increasing stock of international liabilities accumulated since 1980. The question directed my attention to the literature on the so-called "transfer problem" and the mechanisms of financial crises. New Zealand has been successful in avoiding crisis; this paper is therefore about what seems to be (so far) a successful story of adjustment in the face of a significant change in shares of the product.

Figure 1
New Zealand's Current Account, Trade Balance (Goods and Services) and Real Effective Exchange Rate, 1972-2001



Source: IMF *International Financial Statistics*

Over the two decades from the first oil shock in the mid 1970s to about 1998, the New Zealand current account exhibited a secular downward trend overlain by the usual cyclical pattern of strengthening during downturns of the business cycle and weakening during periods of expansion; see Figure 1. Up until 1980 it was generally possible to identify the current account with the commercial balance on goods and services, but from 1984 a wedge opened between the two as New Zealand's overseas

An earlier version of this paper was presented to the Symposium on Sustainable and Excessive Current Account Deficits, Victoria University of Wellington, December 2001. Preliminary work on the project began while I was a visiting fellow at the New Zealand Institute of Economic Research in late 2000.

indebtedness rose steeply, and servicing costs on rising external liabilities became a major burden to be carried by the economy.

While the current account worsened, the real effective exchange rate showed no secular trend, although it did experience wide swings reflecting the stance of monetary policy.[1] As of 1998-99 the current account deficit stood at around 8% of GDP; the real exchange rate, though falling at that time, was still at its long-run historical level; and there was much discussion of possible current-account unsustainability.

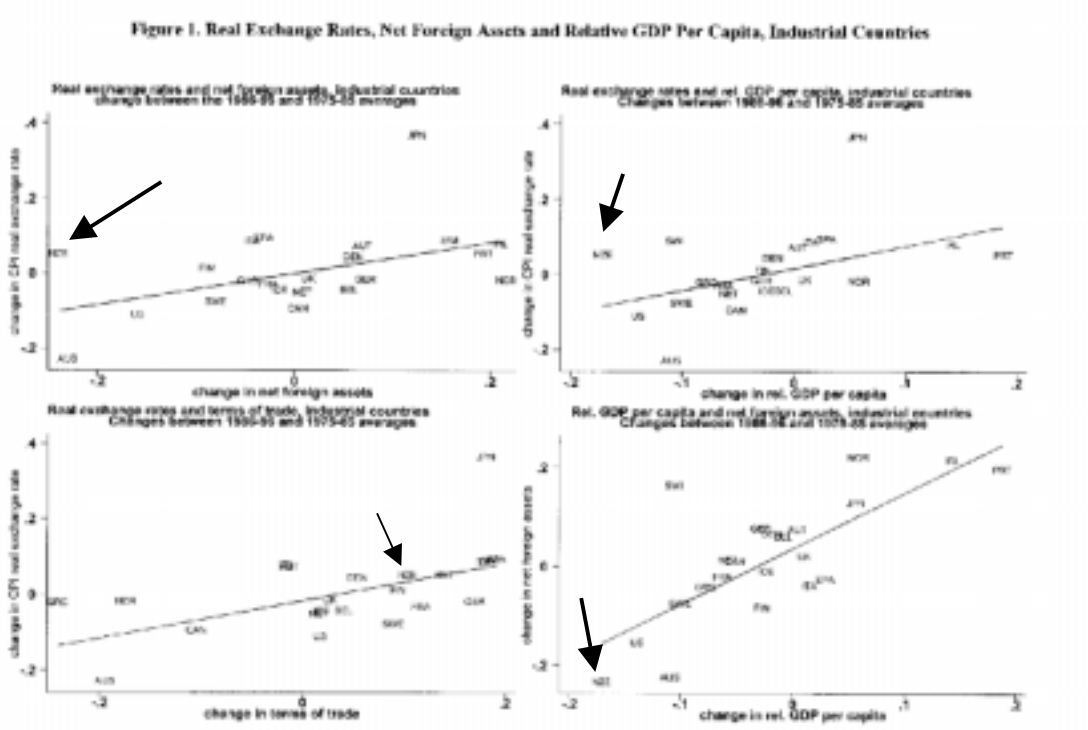
The pattern shown in Figure 1 up to 1999 is not what one might have predicted *a priori*. In macro models of the Salter-Swan variety with an external balance requirement for long-run sustainability, rising external indebtedness imposes a requirement for the balance of trade to move progressively into surplus in order to fund outflows of profits and interest. With free capital mobility and a floating exchange rate, the required adjustment is expected to be achieved via real exchange rate depreciation to produce an appropriate combination of expenditure switching and domestic demand restraint.

Suppose that overseas asset holders are major participants in the foreign exchange market and that they form expectations of the nominal exchange rate on the basis of some forward-looking view about long-run current-account fundamentals (cf Dornbusch and Fischer 1980). Then, unless New Zealand's domestic inflation rate was expected to outrun the world rate (an unlikely proposition following the Reserve Bank Act 1989), or unless an autonomous sharp acceleration of tradeable-goods-led growth was anticipated (increasingly unlikely as the pattern of post-1984 structural change and the poor payoffs to deregulation became apparent during the 1990s), the nominal exchange rate should have been marked down at a rate sufficient to strengthen the trade balance as the investment income balance worsened.

Even though masked by large inflows of funds in the early-mid 1990s as overseas investors moved in to take control of New Zealand's privatised utility sectors, expectational pressures for downward adjustment of the New Zealand real exchange rate seemed strangely absent prior to the Asia crisis. In Lane and Milesi-Ferretti's (2000a) Figure 1 (reproduced below as Figure 2) cross-country regression analysis of the relationship between the current account and the real exchange rate, New Zealand appeared as an outlier with a real exchange rate which failed to adjust in the usual way to slow real GDP growth and rising international indebtedness between 1975-85 and 1986-96.

[1] Tight, and including some explicit elements of nominal exchange rate targeting during the late 1980s and mid 1990s; looser in the early 1990s and late 1990s when domestic recessions eased inflationary pressure.

Figure 2 reproduced from Lane and Milesi-Ferretti 200a.



In the late 1990s there seemed (to me at least) to be three possible explanations for the observation of a stable real exchange rate in the face of apparent secular current-account deterioration:

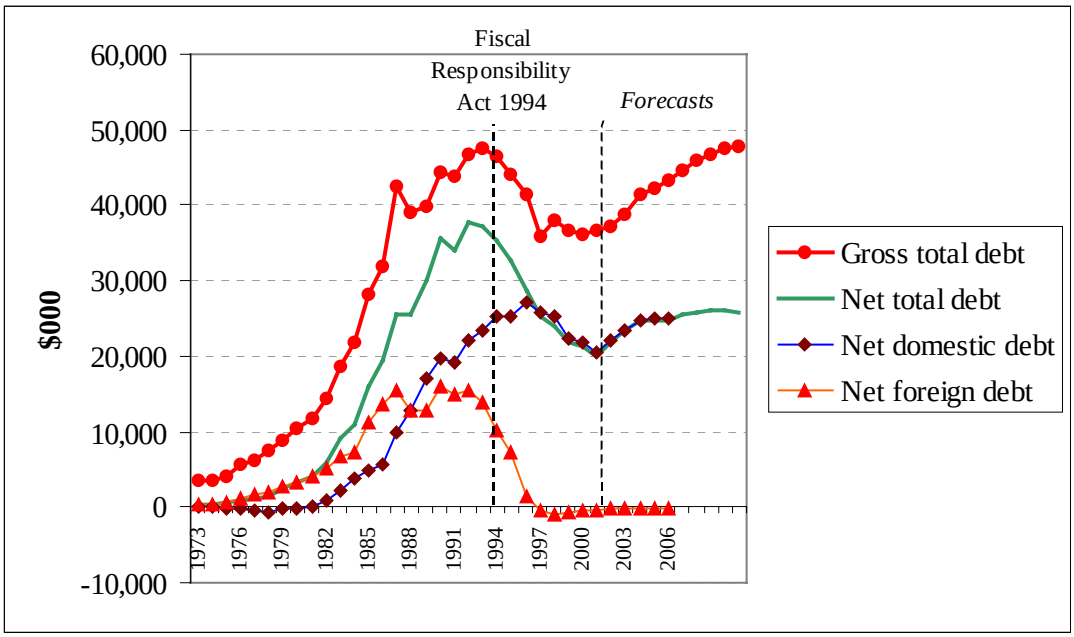
- Rational agents might have been viewing the New Zealand economy as being on an intertemporally-sustainable path with short-term dissaving expected to be unwound in the future by a shift to substantial trade-account surpluses; hence real exchange rate adjustment was expected, but with a delay in order to enable the current-account deficit to widen to accommodate optimal short-run borrowing. The private sector led the run-up of overseas debt exposures throughout the 1990s as Government paid down virtually all its sovereign foreign-currency debt (see Figure 3 below) so that all overseas-held Government securities became denominated in New Zealand currency with exchange rate risk borne by the holders.

- The statistics might be misleading: the trade account, which tracked close to long-run balance (Figure 1 above) may have been a better guide to net flow demandin the foreign exchange market than the current account. Indeed, the current account deficit may have been more to do with book entries than with actual cashflows – hence the absence of persistent excess demand in the foreign exchange market which might have driven depreciation.

- Markets might be holding up the nominal exchange rate on some sort of bubble reflecting non-rational expectations or coordination failure, with the consequent

risk of a sharp run on the currency and a possible string of bankruptcies or defaults among companies with foreign-currency-denominated debt

Figure 3
New Zealand Government Debt 1973-



Source: Debt Management Office

Since 1999, the real exchange rate appears to have made a smooth downward adjustment, the trade balance has moved into surplus, and the current account deficit has pulled back to less than 5% of GDP. The long-run trade surplus required to sustain servicing of the increased external debt now appears to be coming into sight, and the prospect of a New Zealand financial crisis now seems much less than at the time of the Asian crisis.

While it is too early to be certain what happened in the past two years from a long-run perspective, New Zealand does seem to provide comfort to proponents of freely floating exchange rates as one important plank of sustainability for small open economies with high indebtedness. Under a fixed exchange rate regime New Zealand would arguably have faced much sharper adjustment pressures in the past two years.

There are two aspects of the adjustment process which I wish to discuss in the remainder of this paper. First I am interested in the process of realization of the rising real claim on output exercised by overseas holders of net claims on New Zealand assets – the classic transfer problem. Second, I am interested in the role of the banking system in providing a buffer for the foreign exchange market during the period of downward adjustment of the nominal exchange rate.

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2. Factor Shares in the Product

The first of these issues is captured by Figures 4 and 5 below, taken from Bertram (2001).

Figure 4
After-Tax Wage and Profit Shares of GDP

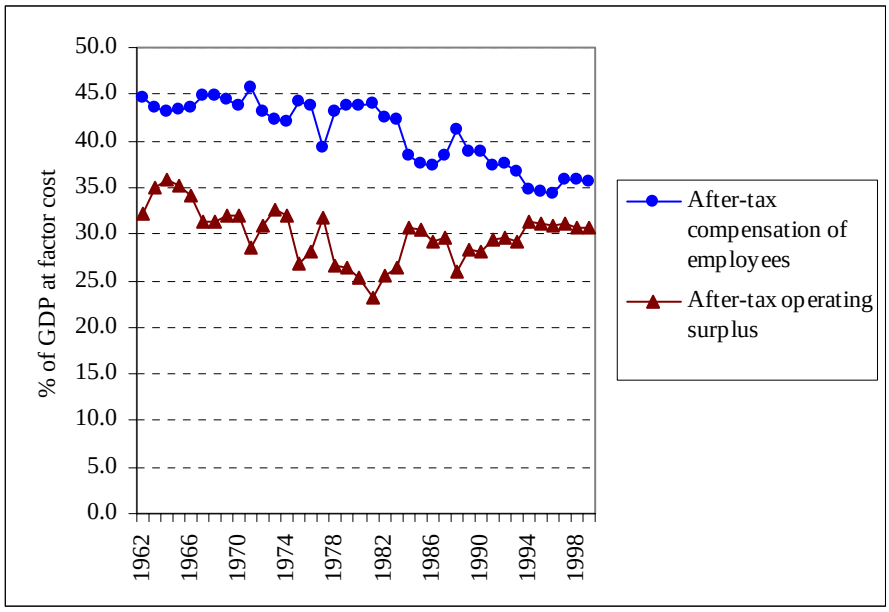

Figure 4 shows the after-tax wage share steady at around 45% from the early 1960s to the early 1980s, then subject to a sharp squeeze through to the mid-1990s following which it stabilized about 35%. Meantime the after-tax profit share held at a long-run 30% with a temporary squeeze in the late 1970s. The squeeze on labour seems due more to a rising Government claim (including benefit payments) than to direct redistribution from labour to capital, despite the strong apparent doctrinal shift in New Zealand's political economy in favour of private capital and against the state.

While the profit share exhibited post-Muldoon recovery but no long-run gains, the economy's corporate operating surplus shifted dramatically into overseas hands, as Figure 5 shows. Out of an after-tax net profit share of 20% of Net Domestic Product, the share of New Zealand-resident owners dropped from 14% of NDP in the early 1980s to less than 8% in the late 1990s, while the share of overseas owners rose from under 4% of NDP to nearly 10%. This increase has corresponded to an extensive transfer of large enterprises into overseas ownership – especially privatised assets in the non-traded sectors of the economy.

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Figure 5

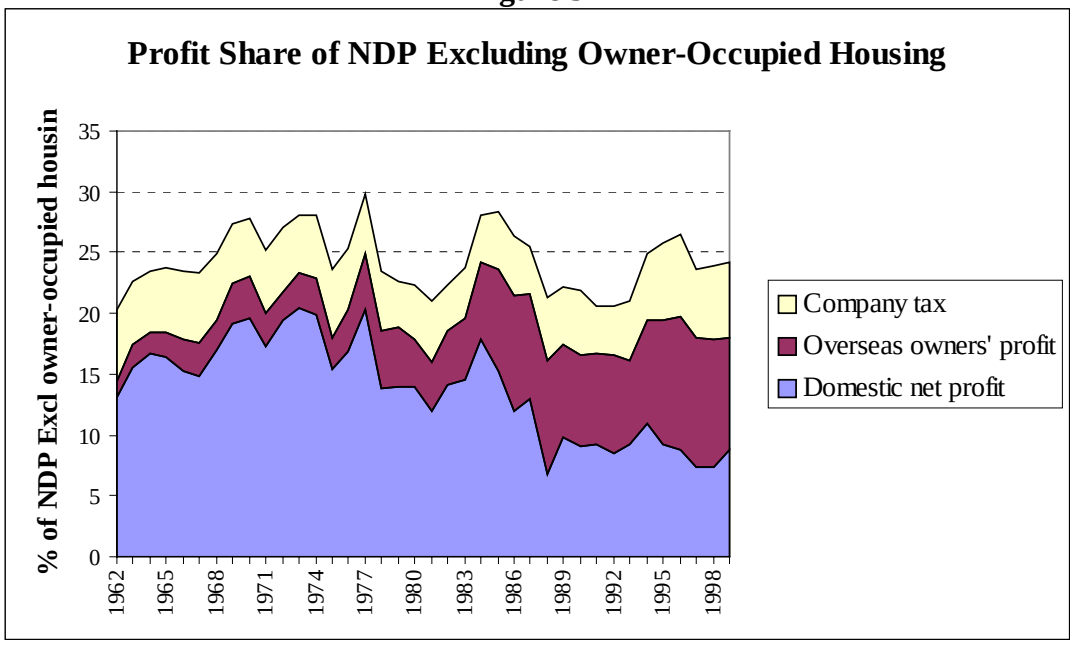


Table 1 sets out the amount of net after-tax profit accruing to overseas investors, minus the Statistics New Zealand national-accounts estimate of direct reinvestment of investment income by overseas recipients. The allocation of this flow between repatriation and retention (acquisition of various New Zealand dollar-denominated assets other than direct reinvestment) is of considerable significance in interpreting the forex market flow implications of the current account.

Table 1
Overseas Profits Net of Reinvestment As Shown in the National Accounts

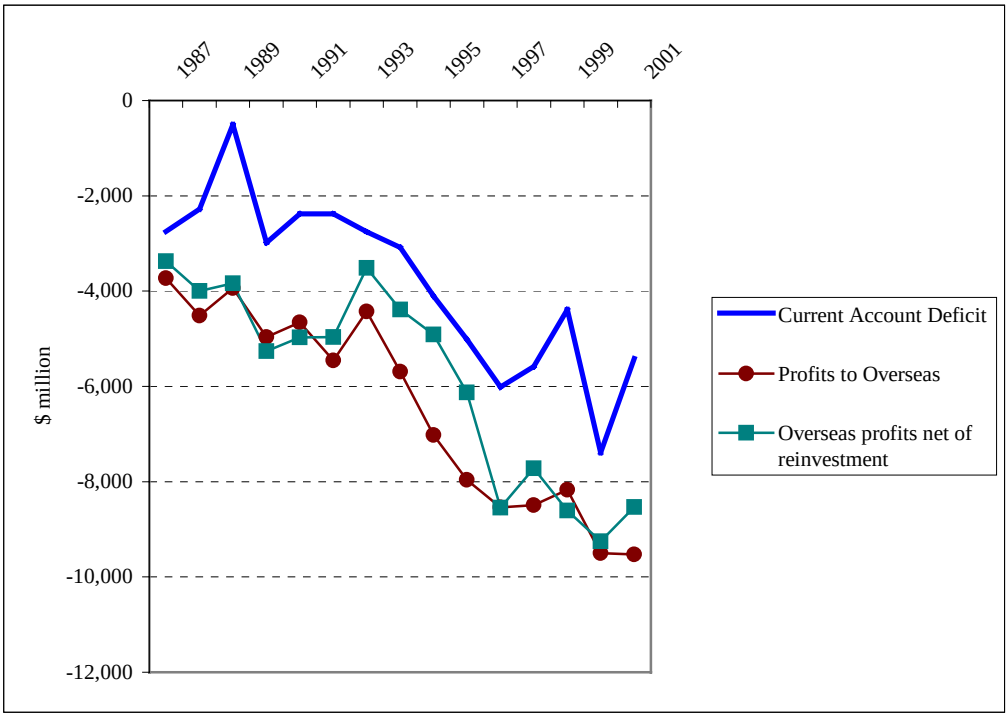
	$ million	% of	Cumulative totals, $billion, starting from:		
		GDP	1987	1991	1996
1987	3,375	6.0	3.4		
1988	3,995	6.4	7.4		
1989	3,839	5.7	11.2		
1990	5,263	7.4	16.5		
1991	4,975	6.8	21.4	5.0	
1992	4,964	6.8	26.4	9.9	
1993	3,511	4.7	29.9	13.5	
1994	4,385	5.4	34.3	17.8	
1995	4,910	5.6	39.2	22.7	
1996	6,126	6.6	45.3	28.9	6.1
1997	8,548	8.8	53.9	37.4	14.7
1998	7,722	7.8	61.6	45.1	22.4
1999	8,604	8.5	70.2	53.7	31.0
2000	9,253	8.7	79.5	63.0	40.3
2001	8,535	7.6	88.0	71.5	48.8

Source: INFOS, SNCA.S2ND49F minus SNCA.S2ND44F

Table 2
Overseas Investors' Profits Compared with Current Account Balance

March years	Current Account balance BOPA.S5AC3	Overseas profit SNCA.S2ND49F	Overseas profit net of direct reinvestment SNCA.S2ND49F minus SNCA.S4ND44F
1987	-2,747	-3,726	-3,375
1988	-2,280	-4,516	-3,995
1989	-504	-3,935	-3,839
1990	-2,982	-4,962	-5,263
1991	-2,380	-4,653	-4,975
1992	-2,376	-5,458	-4,964
1993	-2,756	-4,426	-3,511
1994	-3,087	-5,694	-4,385
1995	-4,107	-7,023	-4,910
1996	-5,014	-7,959	-6,126
1997	-6,014	-8,543	-8,548
1998	-5,581	-8,494	-7,722
1999	-4,385	-8,173	-8,604
2000	-7,391	-9,502	-9,253
2001	-5,414	-9,529	-8,535

Figure 6
Overseas Investment Income Compared with the Current Account Balance



Source: Table 2.

Table 1 shows that in New Zealand currency terms, $88 billion of non-directly-reinvested profits accrued to overseas investors between the 1987 and 2001 March years, of which $72 billion accrued after 1990 and $49 billion after 1995. Table 2 and

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Figure 6 confirm that this flow corresponds closely in both magnitude and timing to the current account deficit, and can be regarded as the primary driver of that deficit given that the goods and services balance (roughly the textbook "trade balance") has been in surplus or in balance throughout the period.

The national accounts data appear to rule out direct reinvestment as a major "absorber" of foreign profits, except for a brief spell of plowing-back during the early-mid 1990s. This, together with the miniscule size of the BPM5 capital account[2] relative to both the current account and the financial account of the balance of payments, implies that the profit flow has either been plowed back into the acquisition of financial assets (equities, portfolio investments, and/or bank deposits), or has been repatriated, with some source of counterpart funding operating within the "financial account".

3. Profit Realisation

As Figure 6 shows, the current account deficit seems to have moved very closely with the accrual of a rising profit share to overseas investors. The question arises whether profit accrual represents a current-account debit item with the same impact on current flow demand for foreign exchange as that associated with other items in the accounts, where cash payments take place within the period being reported.

As the IMF notes[3], "Despite the connotation, the balance of payments is not concerned with *payments*, as that terms is generally understood, but with *transactions*. A number of international transactions that are of interest in a balance of payments context may not involve the payment of money, and some are not paid for in any sense. The inclusion of these transactions, in addition to those matched by actual payments, constitutes a principal difference between a balance of payments statement and a record of foreign payments."

When profits accrue to overseas owners of a New Zealand company[4], these profits are entered as a debit item in the current account on the basis that they represent a claim on the New Zealand economy. How that claim is exercised is not, however, immediately apparent from the statistics. Broadly speaking there are three main ways in which profits, interest and capital withdrawal may be "realised" by the overseas owners:

- Direct reinvestment: the profits are used to fund purchase of fixed assets in New Zealand, increasing the overseas owners' stake in the New Zealand economy while requiring no conversion into foreign currency

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2 As defined in the new BPM5 methodology and format for the accounts. Most of what used to be termed the "capital account" is now included in the "financial account" which includes overseas acquisition of financial assets in New Zealand, including company shares and bonds. The capital account is now restricted to capital transfers and direct purchase of non-financial non-produced assets.

3 International Monetary Fund, *Balance of Payments Statistics Yearbook 1999* Part I p.xxii.

4 Only companies owned 25% or more by overseas investors are included in the quarterly survey of investment income.

- Purchase of New Zealand dollar-denominated financial assets such as shares, debentures and bank deposits: the overseas investors hold their accrued profits in liquid or near-liquid form within the New Zealand currency area, which means that a future decision to shift these funds to other countries would involve passing them through the foreign exchange market. Such short-term holdings of financial claims represent a contingent liability carried into the future by New Zealand, and they would be a key source of funding for a run on the New Zealand dollar.

- Repatriation: New Zealand dollar profits are converted to foreign currency, passing through the foreign exchange market as they accrue.

The economic implications of an increased overseas-owned profit flow (and hence of the recorded current account deficit) depend on the behaviour of the overseas owners to whom the profits accrue. So far as economic growth goes, to the extent that these profits are retained in New Zealand and reinvested into productive enterprises here, the transfer of ownership of a large part of the economy's capital stock into foreign hands should make little difference to economic performance (except to the extent that there are wealth effects flowing from the reduced participation of New Zealand residents in the economy's operating surplus).

Indeed, to the extent that the proceeds from the sale of New Zealand assets to overseas buyers may have been used to fund productive new investment projects, rather than to sustain consumption spending, the total amount of realised investment in the local economy may have been higher than it otherwise would have been, leaving New Zealanders better off than without the denationalisation process.

When overseas-owned profits are directly reinvested or otherwise retained in the form of local-currency assets, the investment income accruing as a debit item in the current account would be offset by a credit entry either in the "capital account" or in the "direct investment" section of the "financial account", reflecting acquisition by the overseas investors of fixed assets in New Zealand. From the point of view of the balance of payments in terms of payments rather than transactions, the overall effect on the flow excess demand for foreign exchange is zero since no actual payments take place which have to pass through the foreign exchange market. In principle, all of the profit outflows appearing in the balance of payments statistics could be pure book entries with no cashflows – in other words the entire New Zealand current account deficit of the mid 1990s could have been a statistical artefact of balance of payments accounting, with no requirement for the deficit to be actually financed from any sources external to the firms involved.

A current-account deficit on investment income which is exactly matched by an equal capital account surplus due to reinvestment has no effect on the flow demand for foreign exchange, and hence does not tend to depress the nominal exchange rate. (There is an important issue regarding the ways in which expectations of forward-looking agents, regarding the longer-run economic effects of rising foreign ownership, might affect the stock demand for foreign currency assets, and hence the spot and forward exchange rate. This will depend on expectations concerning future profit realisation behaviour combined with the expected growth of the New Zealand economy.)

The second profit-realisation possibility identified above – acquisition by overseas-resident profit recipients of New Zealand-denominated financial assets other than those associated with direct reinvestment – is directly analogous to direct reinvestment in terms of economic growth and the exchange rate. By acquiring local-currency financial assets, the overseas investors are potentially providing finance for investment in the New Zealand economy – this time through financial intermediaries rather than directly on their own account. The current-account debit item corresponding to the profit flow would then be offset by an equal financial-account credit reflecting portfolio or equity investment (depending on the type of financial assets acquired by the overseas investors). The main difference between this realisation channel and direct reinvestment is the extent to which the funds remain footloose (liquid), as distinct from becoming locked into relatively illiquid sunk-cost investments.

The third possible realisation process is repatriation. If overseas investors choose to realise their current profits in foreign-currency form rather than in the form of a rising stake in the local economy, then profit flows pass through the foreign exchange market as an incremental flow demand for foreign currency.

Other things equal, one would expect a rising net outflow of realised profit income to put downward pressure on the exchange rate of the local currency, as the mechanism for effecting the required transfer of real purchasing power to overseas investors[5]. In terms of the well-established literature on the "transfer mechanism", the exchange depreciation should have the effect of moving the trade balance into sufficient surplus to cover the repatriation of profits (assuming the Marshall-Lerner conditions are satisfied).

The need for depreciation may be averted or deferred in three particular cases. The first is when some third party stands ready to finance the outflow of repatriated profits at the prevailing exchange rate[6]. The second is when the economic activities from which the profits flow are themselves net incremental earners of foreign exchange[7] to an extent sufficient to self-finance profit repatriation. (This means that the trade surplus required to finance repatriation emerges autonomously without requiring depreciation). The third is a drastic deflation of the domestic economy sufficient to cut net import expenditure by the amount of the required profits transfer[8].

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5 Samuelson, P.A., "On the Trail of Conventional Beliefs About the Transfer Problem", Chapter 15 in Bhagwati, J.N. *et al* (eds) *Trade, Balance of Payments and Growth: Papers in International Economics in Honor of Charles P. Kindleberger*, North-Holland, 1971, p.332.

6 As Ohlin pointed out in his 1929 debate with Keynes, Germany succeeded in more than financing its reparation payments in the late 1920s by borrowing abroad from willing lenders. Ohlin, B., "The Reparation Problem: A Discussion", *Economic Journal* 39:172-178, June 1929.

7 Note that this net increment must be the outcome after taking account of second-round and subsequent flow-through effects of the operation of the relevant overseas-financed projects, since the financing requirement for profit repatriation is an increase in the economy's aggregate trade surplus relative to what it would have been without the overseas investment.

8 Cf Metzler, L.A., "The Transfer Problem Reconsidered", *Journal of Political Economy* 50:397-414, 1942. The reference to "net imports" is to take account of the possibility that domestic demand deflation may increase export supply at the same time as it reduces import demand; the effect on the trade balance is given by

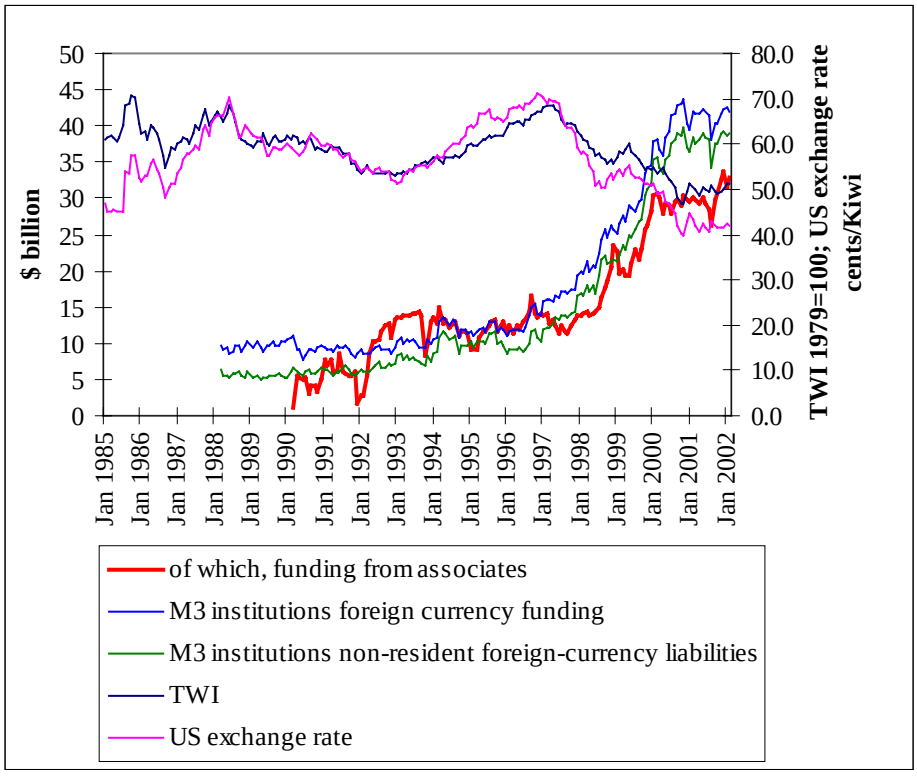
In standard models of external borrowing and foreign direct investment, an initial capital inflow raises home production of traded goods sufficiently to service the increased international liabilities out of the net incremental export earnings, leaving the home population with undiminished, or possibly increased, levels of material welfare relative to the situation without the capital flows. Then the initial current account deficit during the period of capital inflow is followed by a period of current account balance, with a trade surplus funding the repatriation of profits on the overseas-owned capital stock. In the New Zealand case, the large capital inflows during the privatization phase involved ownership transfers of mature industries more than new investment, and the primary use of the funding flows appears to have been the paying-down of the Government's overseas debt shown in Figure 2 above. Consequently one would expect the current account a s whole to weaken in the absence of exchange rate adjustment.

4. The Banks and the Exchange Rate Adjustment

Figures 7 and 8 juxtapose two trends of the past five years: the falling nominal exchange rate and the short-term foreign-currency liabilities of the M3 institutions. (Figure 7 shows the longer-run picture since 1985, and Figure 8 the adjustment period since 1997.)

$d(X-Z) = \frac{\partial X}{\partial Y}\,dY - \frac{\partial Z}{\partial Y}\,dY = (\frac{\partial X}{\partial Y} - \frac{\partial Z}{\partial Y})dY$, so that both the import propensity and the export propensity of a Keynesian model are relevant to the outcome. A useful reminder of the possibility that a serious transfer problem can have significant effects on the domestic economy is the path of real GDP in Peru during the 1980s international debt crisis period. In constant 1985 prices, GDP fell 12.3% in real terms over two years (16.3% per capita). Real GDP did not sustainably recover until 1994, and real per capita GDP in 2000 remains nearly 10% below its 1981 level (IMF *International Financial Statistics Yearbook 2000*, pp.798-799).

Figure 7
Nominal Exchange Rate and Bank Foreign-Currency Liabilities 1985-



Source: RBNZ Historical Tables B1 and C5

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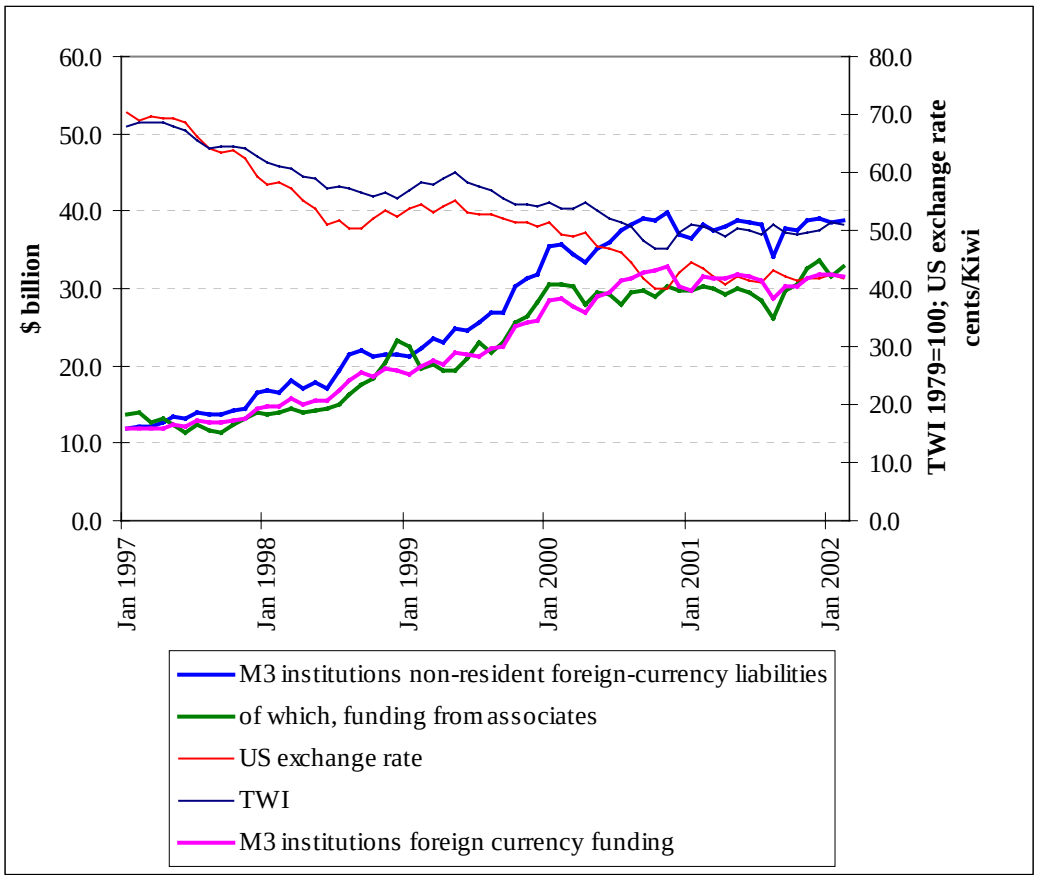
Figure 8
Nominal Exchange Rate and Bank Foreign-Currency Liabilities 1997-2002



An hypothesis which emerges from these data runs as follows. Up until 1997, overseas-owned accruing profits might have beene largely realized as locally-retained earnings rather than repatriated as flow demand for foreign exchange. Then the transfer process clicked inp as investment in New Zealand slowed and repatriation became the main realization channel. The nominal exchange rate moved accordingly to induce real expenditure switching, reflected in the pickup of net exports. However the usual J-curve lag meant that there was a period of funding shortfall in the foreign exchange market, from the beginning of calendar 1998 through to some time in 2000. To forestall a much sharper depreciation of the nominal exchange rate (and in the process to protect themselves against exchange rate losses) the M3 institutions stepped in to accommodate the increased flow demand for foreign exchange, via the provision of credit from head offices to their New Zealand subsidiaries.

From $12 billion in October 1997, foreign-currency funding of the M3 institutions by "associates" had risen to $30 billion by September 2000. One interpretation of this is that a *de facto* overdraft facility was provided to enable profit repatriation to be realized without depressing the nominal exchange rate; in effect, a private-sector currency support operation in a floating exchange rate regime where the central bank was not involved in direct support purchasing of its own currency in the forex market.

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5. Some Analysis in a Competing-Shares Framework

[This section not completed; in preparation.]

6. Conclusion

The anxiety of many commentators about the sustainability of the large current account deficit of the mid 1990s reflected a long-standing unease in New Zealand about whether, in the final analysis, the economy's response elasticities are sufficiently flexible to enable it to respond flexibly to external shocks of the sort associated historically with the transfer problem and the literature on financial crises.

By the late 1990s New Zealand seemed on track for a direct test of the institutional and policy arrangements put in place during the 1980s and early 1990s with the explicit aim of enabling flexible adjustment and reducing exposure to crisis. Two key components of the package were the floating exchange rate and the switch from foreign-currency denominated liabilities to local-currency denominated ones. In most respects the policy stance of New Zealand has been in line with mainstream proposals for avoiding crisis (see e.g. Rogoff 1999).

The experience of the past year suggests to me that this policy mix has been successful in achieving transition towards, and possibly to, a sustainable external balance, and that the depreciation of the real exchange rate has been a fundamental part of that process.

APPENDIX
Flow Data from the Balance of Payments Accounts

Table A1 presents the relevant INFOS annual series. Comparison of the BPM4 and BPM5 series over the full decade shows close agreement on investment flows and "errors and omissions". The major difference is in the current account figures through the mid-1990s, when the BPM5 "capital account" shows a substantial credit while the BPM5 current-account deficit is larger than the BPM4 one. The shifting of migrant transfers from the current to the capital account seems to lie behind this.

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Table A1
The New Zealand Balance of Payments 1994-2000

	Current account	Capital Account (BPM5)	Financial Account			Total (overall balance)
			Investment debit+	Investment credit	Errors , omissions, unsurveyed	
			BPM 4 methodology			
	BOPA.S4AC3		BOPA.S4AD2	BOPA.S4AC2	BOPA.S4AC4D	
1991						
1992						
1993						
1994	-814		6,761	7,487	***88****	0
1995	-2,644		1,778	5,494	-1,072	0
1996	-2,924		373	7,978	-4,681	0
1997	-4,756		301	4,321	736	0
1998	-5,725		1,217	7,619	-677	0
1999	-4,909		2,899	5,791	***2,017****	***0***
2000	-7,937		5,746	10,016	3,667	0
			BPM5 methodology			
	BOPA.S5AC3	BOPA.S5AC4A	BOPA.S5AD2B	BOPA.S5AC2B	BOPA.S5AC4B5	Residual
1991	-2,380					
1992	-2,376					
1993	-2,756	666	-2,972	2,736	-3,523	95
1994	-3,087	1,041	6,760	7,442	1,357	-7
1995	-4,107	1,464	1,837	5,519	-1,039	0
1996	-5,014	2,134	395	8,034	-4,759	0
1997	-6,014	1,445	356	4,376	549	0
1998	-5,581	54	683	6,975	-765	0
1999	-4,385	-404	2,934	5,798	1,925	0
2000	-7,391	-415	5,811	9,981	3,636	0
2001	-5,414	-184	12,156	17,215	524	-15

+ Includes reserve asset transactions

** INFOS figures have been changed to balance the accounts. Changes are in bold italic. The INFOS series BOPA.S4AC4D shows values of 1,544 for 1994 and 217 for 1999. The figure of 88 for 1994 appears in the accounts as presented in Hot off The Press 98/99-074. The 1999 adjustment is simply a residual from the other data.*

In the BPM5 data, the capital account figures shown for 1993-95 are residuals, as the INFOS series BOPA.S5AC4A begins only in 1996.

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For the period 1994-2000 we can rearrange the data to show the possible channels for disposition of overseas profits. (The point of this is to provide a flow framework for linking to the international investment position stock figures.)

As a working identity, we decompose the balance of payments constraint as follows:

$$TB + SB + CT + II_{in} - II_{out} + KA_{in} - KA_{out} + DI_{in} - DI_{out} + RE + PI_{in} - PI_{out} + OI_{in} - OI_{out} + EO = 0$$

where

TB	is the trade balance
SB	is the services balance
CT	is current transfers
II	is investment income
KA	is capital account transactions in the BPM5 format
DI	is direct investment excluding reserves
RE	is net acquisition of overseas reserve assets
PI	is portfolio investment
OI	is "other investment"
EO	is errors, omissions, and unsurveyed capital transactions

To address the disposition of overseas profits (that is, the financing of transfers to overseas investors) we rearrange, to put investment income accruing to overseas investors on the left-hand side and the remainder of the balance of payments on the right:

$$II_{out} = (TB + SB + CT + II_{in}) + (KA_{in} - KA_{out}) + (DI_{in} - DI_{out} + RE + PI_{in} - PI_{out} + OI_{in} - OI_{out} + EO)$$

Remainder of the current account | BPM5 "capital | BPM5 "financial account"

Table A2 shows the data in this form, using the BPM5 figures, for the period 1993-2000. Figure 5 shows the decomposition of all balance-of-payments items other than overseas investment income, compared with the annual accrual of overseas investment income, giving a sense of how balance-of-payments equilibrium has been sustained through the 1990s in the face of the rising accrual of profits to overseas investors.

Adjustment

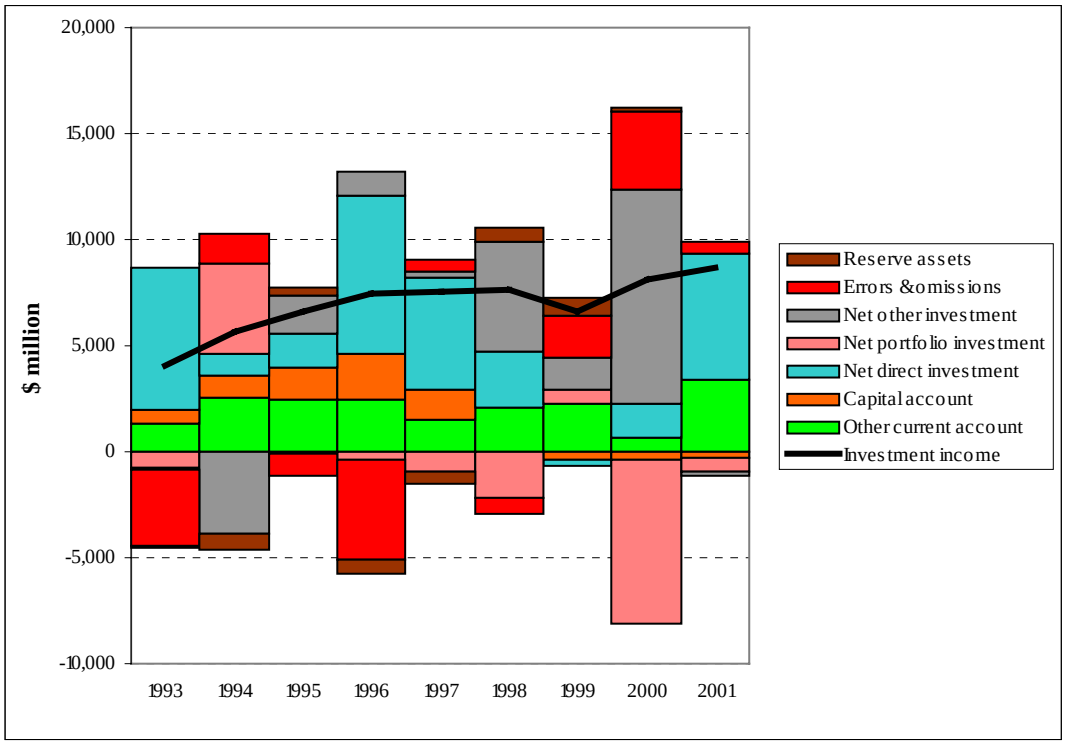
The main pattern revealed by the data is what looks to be a sea-change in the structure of the balance of payments. To highlight the nature of that change, it is worth looking first at the trends over the March years 1993 to 2000, and then seeing what the addition of a further year's data shows.

Over the 1993-2000 period one could aggregate the detailed components of the above identity into four series:

- the gross income to overseas investors, which was to be financed;
- reserves movements, which are not a significant part of the story

- four sources of funding which fell radically over the eight year period: the capital account balance, net direct investment, net portfolio investment, and the current account surplus excluding investment income outflows. These four combined resulted in a net credit of $12 billion in 1996, fell below $3 billion by 1998 and then moved to a deficit of nearly $6 billion in 2000 (the last resulting almost entirely from heavy portfolio disinvestment). In an earlier paper on this topic[9] I labeled them "the failing four", with the underlying proposition that their failure represented a problem for sustainability of the current account;
- two sources of funding which became dominant in the statistics over the period, namely "other investment" and "errors and omissions". These two combined exhibited a net deficit of $3.7 billion in 1996, a surplus of $4 billion by 1998, and a surplus of $13.7 billion in 2000 (see Figure 9).

Figure A1
Components of the New Zealand Balance of Payments



As Figure A2 shows, the year to March 2001 brought a radical reversal, with the resurrection of the trade balance and direct investment while "other investment" and errors faded. The reduction of errors and omissions was reassuring for users of the statistics, but it is the fall in "other investment" that really attracts attention.

[9] Paper to School of Economic and Finance research workshop, March 2001.

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Table A2
Financing of the Flow of Investment Income Accruing to Overseas Investors, 1993-2000

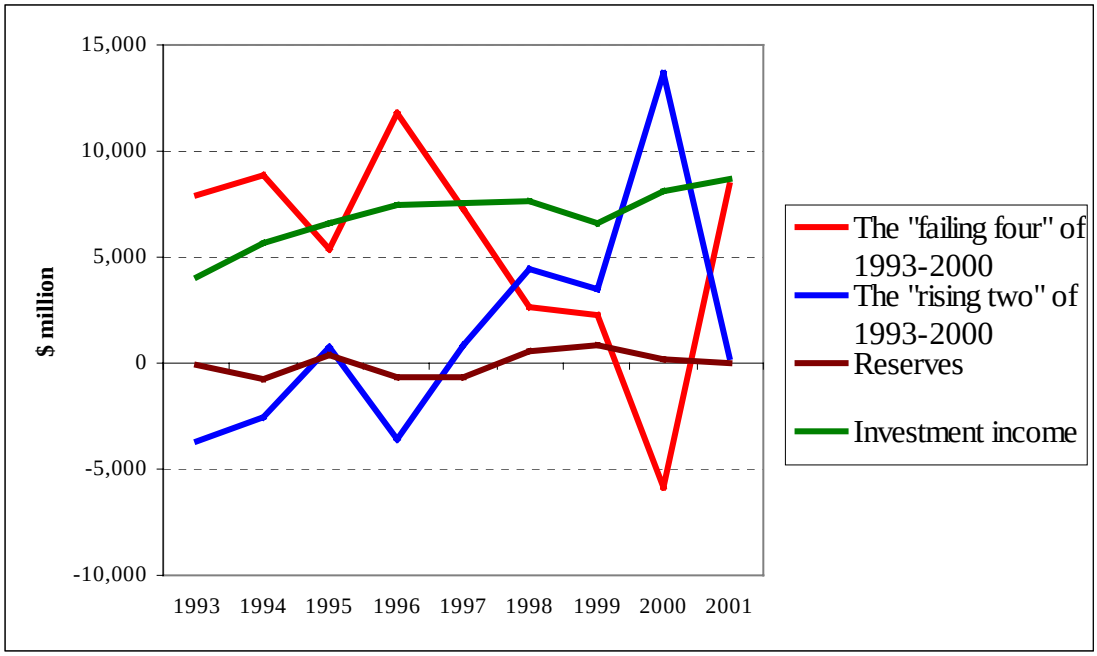
March years	(1) Current Account balance	(2) Investment income debit	(3) Remainder of current account	(4) Capital account (BPM5 format)	(5) Direct investment in New Zealand	(6) Direct investment overseas by New Zealand residents	(7) Portfolio investment in New Zealand	(8) Portfolio investment overseas by New Zealand residents	(9) Other investment in New Zealand	(10) Other investment overseas by NZ residents	(11) Reserves debit item	(12) Errors, omissions and unsurveyed investment	(13) Total over all rows (should be zero)
	BOPA.S5AC3	BOPA.S5AD1B2	(1) – (2)	BOPA.S5AC4A	BOPA.S4AC2A1 & BOPA.S5AC2B1	BOPA.S4AD2A1 & BOPA.S5AD2B1	BOPA.S4AC2A2 & BOPA.S5AC2B2	BOPA.S4AD2A2 & BOPA.S5AD2B2	BOPA.S4AC2A3 & BOPA.S5AC2B3	BOPA.S4AD2A3 & BOPA.S5AD2B3	BOPA.S5AD2B4	BOPA.S4AC4D & BOPA.S5AC4B5	(2)-(3)-(4)-(5)+(6)-(7)+(8)-(9)+(10)+(11)-(12)
1993	-2,756	4,067	1,311	666	4,093	-2,570	-777	-56	-580	-408	81	-3,523	-76
1994	-3,087	5,668	2,581	1,041	4,413	3,388	4,959	707	-1,930	1,927	729	1,357	-2
1995	-4,107	6,579	2,472	1,464	4,343	2,718	-205	-65	1,381	-437	-379	-1,039	0
1996	-5,014	7,462	2,448	2,134	5,701	-1,802	258	591	2,074	932	674	-4,759	1
1997	-6,014	7,528	1,514	1,445	2,900	-2,368	-285	636	1,761	1,474	614	549	0
1998	-5,581	7,616	2,035	54	3,411	750	927	3,073	2,638	-2,554	-586	-765	-1
1999	-4,385	6,626	2,241	-404	1,779	2,029	743	59	3,276	1,720	-874	1,925	0
2000	-7,391	8,069	678	-415	2,964	1,342	-6,041	1,665	13,058	2,976	-172	3,636	0
2001	-5,338	8,717	3,379	-244	7,715	1,745	3,890	4,587	5,608	5,816	6	524	-1

Source: INFOS

Table A3
Trends in the Annual Balance of Payments 1993-2000: $million

	The four: current account residual, capital account, direct investment, portfolio investment	The two: other investment and errors & omissions	Reserves changes	Investment income
1993	7,919	-3,695	-81	4,067
1994	8,899	-2,500	-729	5,668
1995	5,421	779	379	6,579
1996	11,752	-3,617	-674	7,462
1997	7,306	836	-614	7,528
1998	2,604	4,427	586	7,616
1999	2,271	3,481	874	6,626
2000	-5,821	13,718	172	8,069
2001	8,408	316	-6	8,717

Figure A2
The Big Turnaround



My impression is that there was a sharp turnaround in the financing of New Zealand's balance of payments in 1999-2001, accompanying or following the depreciation of the real and nominal exchange rate. The two key changes were a recovery in the trade

balance which shows every sign of being sustained, and a change in the composition of financial (what used to be called capital) inflows from the increasingly short-dated flows captured in the "other investment" category back to the longer-run commitments classified under "direct" and "portfolio" investment.

Both of these are likely to be related to the realignment of the exchange rate, which suggests that we should not expect to see the real exchange rate rise much from its present levels, and indeed that it may have further to fall as part of the transfer mechanism as New Zealand moves towards long-run external balance.

The shift from long-run investment flows to short-run flows in the late 1990s could be thought of as recognition by overseas investors of the latent over-valuation of the New Zealand dollar, and the consequent prospect of depreciation-induced capital losses on long-run capital commitments undertaken at that time. With the exchange rate now down, and apparently sustainably so, the apparent return of overseas investors might signal a view on the part of overseas capitalists that the conditions for future transfers of economic surplus to them are no longer overhung by exchange rate risk.

Appreciation would, however, both threaten the rise in net exports and increase the perceived exchange rate risk for investors – both trends which would bring the transfer problem into focus again.

The above review of the figures suggests that the following story could be told: New Zealand delayed its exchange rate adjustment, and hence the resolution of the latent transfer problem presented by rising liabilities to overseas investors, by drawing on increasingly short-run capital flows until the limits of lender willingness were reached; then the exchange rate came down and the delayed real adjustment occurred.

Who might the lenders have been in such a process? To clarify this we turn to the stock data on the international investment position.

Stock Data: Trends in the International Investment Position

While the stream of accrued profits to foreign owners rose over the 1993-2000 period, there occurred a dramatic shift in the stock composition of overseas investment in New Zealand, away from long-dated assets and equity, and towards liquid financial assets such as currency and call deposits. The trend then abruptly reversed (at least so far as the statistics are concerned) in March year 2001. This is apparent from two sources: the "International Investment Position" statistics produced by Statistics New Zealand, and the "Balance Sheets of M3 Institutions", which appears as Table C4 in the Reserve Bank's *Financial Statistics*.

The RBNZ table divides both assets and liabilities of the M3 institutions (hereafter referred to as "the banks") into New Zealand currency and foreign currency claims. Table A4 shows the breakdown. The key feature is the rise of foreign-currency funded liabilities from 12% of total liabilities at the end of 1996 to 25% by late 2000.

Figure A4
New Zealand and foreign currency funding of M3 institutions liabilities

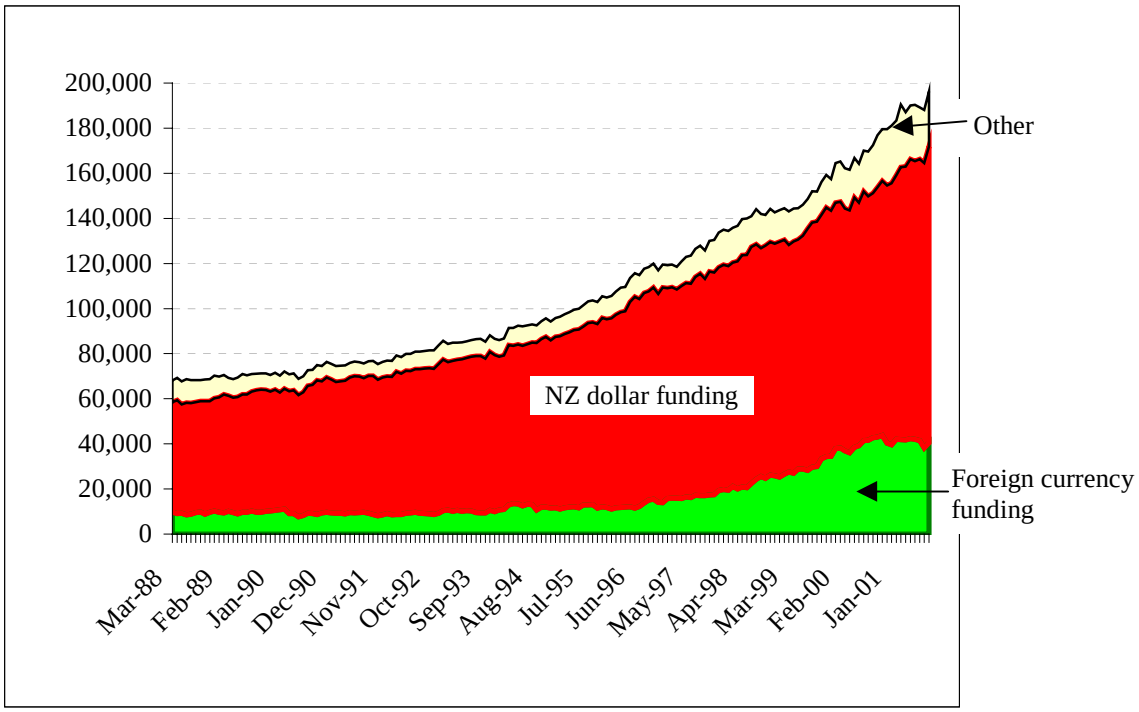
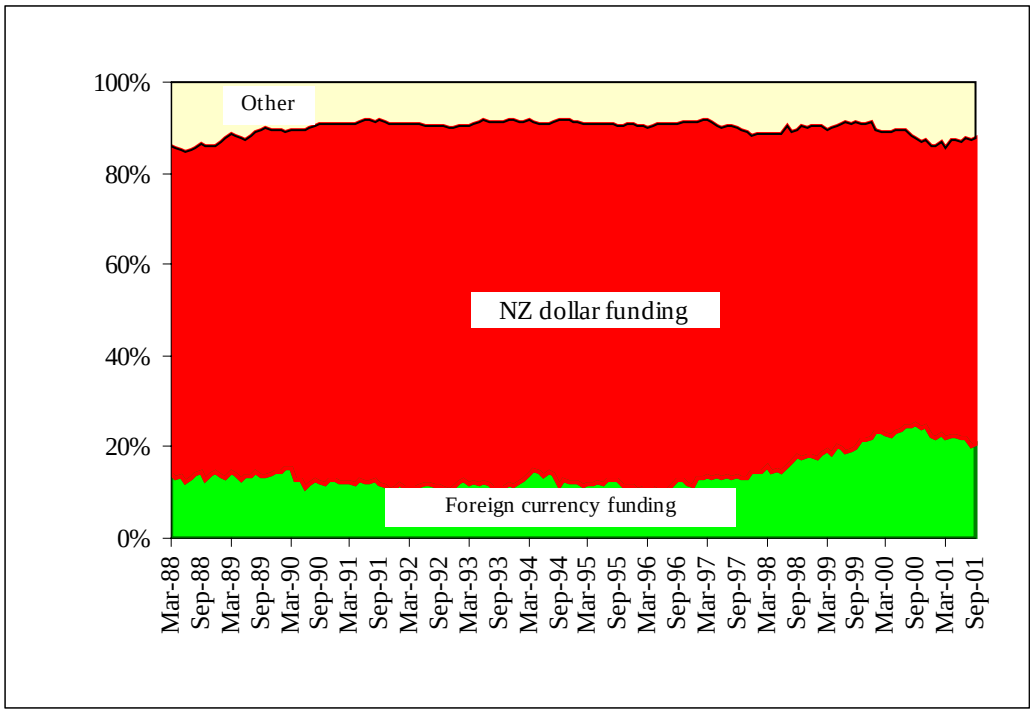


Figure A5
Percentage composition of funding of M3 Institutions' liabilities



TableA46

Balance Sheets of M3 Institutions: Main Aggregates: $ billion

	Total NZ dollar funding	Total Foreign currency funding	Capital, reserves and other liabilities	Total liabilities	NZ Govt bonds & Treasury bills	Total NZ dollar claims	Total foreign currency claims	Other Assets	Total assets
Mar-1989	51	10	8	69	5	53	5	4	69
Mar-1990	53	11	8	72	5	59	5	1	72
Mar-1991	58	9	7	75	6	62	3	1	75
Mar-1992	63	9	7	79	8	66	2	0	79
Mar-1993	67	10	8	85	9	68	3	2	85
Mar-1994	71	13	8	91	8	76	4	2	91
Mar-1995	77	12	9	98	6	82	4	3	98
Mar-1996	87	12	11	109	3	96	3	5	109
Mar-1997	93	16	10	118	2	106	3	6	118
Mar-1998	99	21	16	136	4	114	5	11	136
Jun-1998	103	21	16	140	5	118	5	10	140
Sep-1998	101	26	15	142	6	120	4	10	142
Dec-1998	103	26	14	143	4	124	5	7	143
Mar-1999	101	28	15	143	7	122	5	9	143
Jun-1999	104	29	14	146	6	128	5	6	146
Sep-1999	109	30	13	152	8	131	6	6	152
Dec-1999	109	34	14	157	7	136	7	6	157
Mar-2000	107	37	18	162	5	139	7	10	162
Jun-2000	108	39	17	164	6	139	8	10	164
Sep-2000	108	43	21	172	7	139	10	16	172
Oct-2000	111	43	23	177	7	142	10	17	177
Nov-2000	113	44	23	180	7	144	12	17	180
Dec-2000	114	40	26	180	7	143	12	16	180
Jan-2001	116	40	25	181	7	145	12	17	181
Feb-2001	117	42	24	183	6	147	13	16	183
Mar-2001	121	42	28	191	6	149	14	21	191
Apr-2001	121	42	24	187	7	150	14	17	187
May-2001	124	42	24	190	7	151	16	16	190
Jun-2001	123	42	25	190	7	151	16	17	190
Jul-2001	125	41	23	189	7	152	16	14	189
Aug-2001	126	38	24	188	7	153	13	15	188
Sep-2001	131	40	24	196	7	158	14	17	196

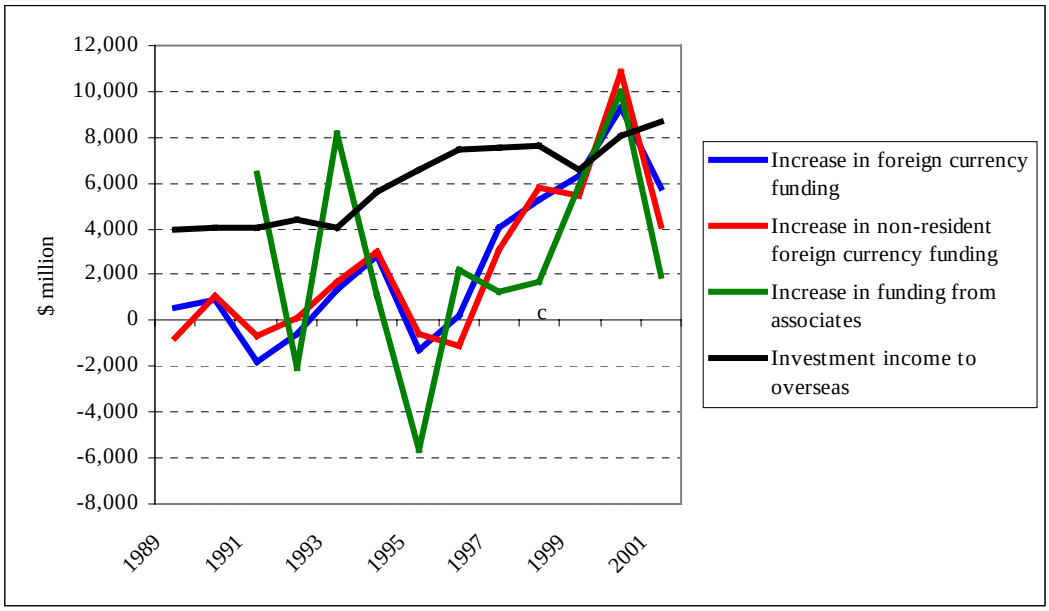
Source: RBNZ Financial Statistics Table C4

As Table A4 shows, between March 1996 and March 2000 the foreign-currency funding liabilities of M3 institutions increased by $25 billion – enough to cover the bulk of the $29 billion of investment income to rest of world that accrued during that period. Figure 10 shows that from 1995 to 1998 an increasing share of the counterpart funding for profit outflow came from the banking sector's foreign currency liabilities, dominated by short-term lending from overseas parents. In 1999 and 2000 the banks carried the entire funding task – effectively providing overdrafts to foreign capitalists to realize and repatriate profits, if one makes the leap to linking these two series in a direct sense. In March year 2001 the willingness of the banks to carry this load evidently ended, and the balance of payments was forced to adjust to create alternative funding sources – basically net exports and direct capital inflow, both of them arguably driven by exchange rate depreciation.

Table A5
M3 Institutions' Foreign Currency Funding Compared with Investment Income to Rest of World

March year	Increase in foreign currency liabilities	Non-resident	Associates	Investment income gross debit
1988				4,515
1989	547	-719		3,935
1990	932	1,061		4,071
1991	-1,828	-658	6,391	4,037
1992	-552	157	-2,093	4,370
1993	1,328	1,736	8,167	4,067
1994	2,854	3,020	1,113	5,668
1995	-1,285	-564	-5,628	6,579
1996	222	-1,127	2,204	7,462
1997	4,081	3,120	1,292	7,528
1998	5,313	5,801	1,690	7,616
1999	6,328	5,435	5,903	6,626
2000	9,332	10,891	9,964	8,069
2001	5,795	4,098	1,999	8,717
Apr-June 2001	279	388	35	2,084

Figure A6
Comparison of M3 Institutions's Foreign Currency Funding and the Balance of Payments Investment Income Debit



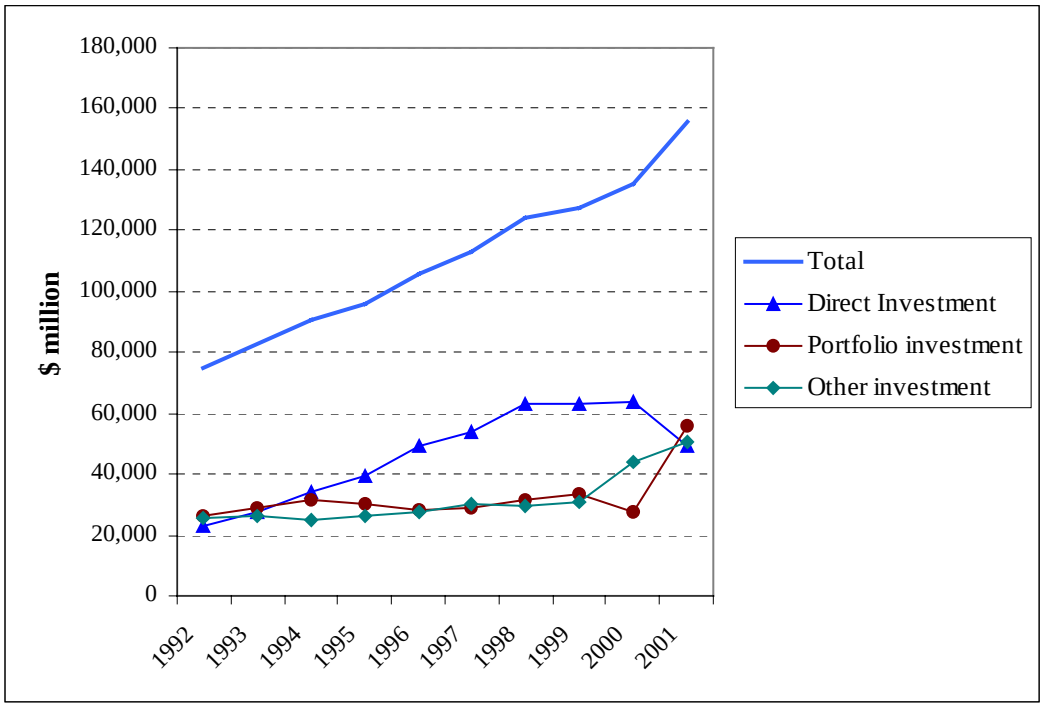
The other stock data of relevance to our enquiry are the figures on New Zealand's "international investment position". The main components of the international

balance sheet are shown in Table A6 and plotted in Figure A7. The stock of "direct investment" rose rapidly in the mid 1990s, from $23 billion in 1992 to $63 billion by 1998, but then remained static to 2000 before dropping sharply to March 2001. The cessation of growth in the stock of direct and "portfolio investmen" was disguised by the sharp pick-up in "other investment" since 1998.

Table A6
International Investment Position: Liabilities
$ million

	Direct investment in New Zealand	Portfolio investment in New Zealand	Other investment in New Zealand	Total
1992	22,904	26,060	25,839	74,803
1993	27,808	28,637	26,408	82,853
1994	34,338	31,281	25,226	90,845
1995	39,381	30,504	26,109	95,994
1996	49,212	28,543	27,847	105,602
1997	53,920	29,003	30,043	112,966
1998	62,953	31,723	29,380	124,056
1999	63,121	33,315	30,825	127,261
2000	63,766	27,722	43,962	135,450
2001	49,313	56,031	50,294	155,638

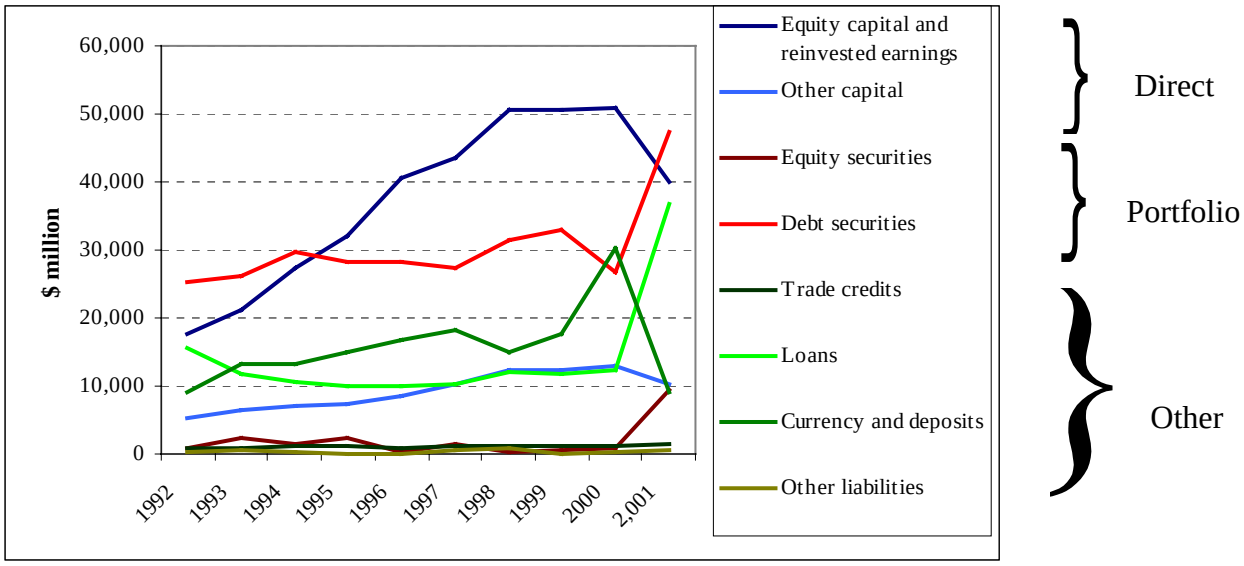
Figure A7
International Investment Position: Liabilities



Insofar as overseas profits are being reinvested in New Zealand, or repatriated with counterpart funding on financial account, the key area is clearly "other investment".

Table A7 provides more detail on the composition of international investment liabilities. The conversion of "currency and deposits" into "loans" in 2001 appears to correspond to a consolidation of the bank's positions.

Figure A8
Detail of New Zealand's International Investment Liabilities



Source: Table A8

Table A8 and Figure A8 compare the International Investment Position data on currency and deposit liabilities with the RBNZ figures on liabilities of M3 institutions from. There is a reasonably consistent story across the various sources.

Table A7
More Detailed components of International Investment Liabilities
$ million

	Direct investment			Portfolio investment			Other investment				
	IIPA.S5ALA11	IIPA.S5ALA12		IIPA.S5ALA21	IIPA.S5ALA22		IIPA.S5ALA31	IIPA.S5ALA32	IIPA.S5ALA33	IIPA.S5ALA34	
	Equity capital and reinvested earnings	Other capital	Total	Equity securities	Debt securities	Total	Trade credits	Loans	Currency and deposits	Other liabilities	Total
1992	17,698	5,206	22,904	855	25,205	26,060	855	15,662	8,997	326	25,840
1993	21,244	6,565	27,809	2,473	26,164	28,637	933	11,780	13,235	460	26,408
1994	27,220	7,118	34,338	1,451	29,830	31,281	1,039	10,566	13,211	410	25,226
1995	31,966	7,415	39,381	2,283	28,221	30,504	1,038	9,859	15,076	136	26,109
1996	40,695	8,518	49,213	425	28,118	28,543	956	9,887	16,889	115	27,847
1997	43,641	10,279	53,920	1,503	27,500	29,003	1,064	10,165	18,315	500	30,044
1998	50,618	12,335	62,953	376	31,347	31,723	1,242	11,999	15,125	1,014	29,380
1999	50,632	12,489	63,121	453	32,862	33,315	1,132	11,774	17,790	130	30,826
2000	50,969	12,798	63,767	817	26,905	27,722	1,246	12,222	30,318	177	43,963
2001	39,957	10,321	50,278	9,310	47,442	56,752	1,433	36,891	9,181	735	48,240

Table A8
Comparison of Various Sources on the Counterpart Funding of Overseas Profits

March year	RBNZ Table C4: M3 Institutions' increase in foreign currency liabilities	RBNZ Table C4: M3 institutions' increase in non-resident foreign currency funding	RBNZ Table C4: Increase in M3 institutions' foreign currency funding from associates	BOP data: Investment income to rest of world	IIP data: Change in New Zealand's currency and deposit liabilities
1988				4,515	
1989	547	-719		3,935	
1990	932	1,061		4,071	
1991	-1,828	-658	6,391	4,037	
1992	-552	157	-2,093	4,370	
1993	1,328	1,736	8,167	3,788	4,238
1994	2,854	3,020	1,113	5,161	-24
1995	-1,285	-564	-5,628	6,579	1,865
1996	222	-1,127	2,204	7,463	1,813
1997	4,081	3,120	1,292	7,528	1,426
1998	5,313	5,801	1,690	7,616	-3,190
1999	6,328	5,435	5,903	6,626	2,665
2000	9,332	10,891	9,964	8,069	12,528
2001	5,795	4,098	388	8,717	-21,137

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