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Editor's Note

This issue of the *Bulletin* contains a wide variety of subject matter, ranging across quite a number of the Reserve Bank's functions, including aspects of our internal management.

We lead this issue with our annual review of developments affecting New Zealand's financial stability. In this review, we conclude that New Zealand's financial sector has remained resilient despite continued global economic weakness and that there do not appear to be any immediate concerns for domestic financial stability. Banks are well capitalised, with sound asset quality, good risk management systems and strong parent banks, and corporate credit quality remains satisfactory.

However, we are keeping a careful watch on potential threats to financial stability, particularly developments in the household sector, where household borrowing remains very high and where many households have a high exposure to real estate. We are also keeping a watchful eye on corporate and rural sector developments, including their capacity to ride through any further appreciation in the New Zealand dollar. And, in view of the fact that New Zealand's financial system is dominated by Australian banks, the state of the Australian economy and financial system is always on our radar screen. On that front, it is pleasing to see that Australia continues to enjoy a robust economy and that its banking system remains in good health.

Monetary policy in New Zealand is implemented by the Reserve Bank setting the Official Cash Rate. This influences the level of most other interest rates in the New Zealand economy, and thereby affects the level of economic activity and inflationary pressures. In setting interest rates, it is therefore important to know what level of interest rates will stimulate or constrain economic activity. Our second article - *Neutral real interest rates revisited* - discusses this issue by looking at the "neutral real interest rate" in New Zealand. This is the interest rate, after taking off the inflation rate, that is neither stimulatory nor contractionary in its effect on the economy – ie it is neutral in its impact on economic activity.

In the article, we discuss the various ways of estimating the neutral real interest rate, and we make the point that there is no perfectly reliable means of doing this. Therefore, any estimate of the neutral real rate is approximate only and

subject to many uncertainties. Notwithstanding this, we arrive at broad estimates of the neutral real rate for New Zealand and we compare that rate with estimates for earlier years. Those estimates reveal a marked decline in the level of the neutral real rate. We offer a number of explanations for why this trend has occurred. However, we also note that, although New Zealand's neutral real rate has declined, it remains higher than in some other developed economies, such as the United States and, to a lesser extent, Australia. The article discusses why this is so and what factors might influence the future direction of the neutral real rate in New Zealand.

We change tack in our third article and look inwards to how the Reserve Bank manages its risks. We published an article on this topic in the December 1999 issue of the *Bulletin*, in which we described the then newly formed Risk Assessment and Assurance Department in the Reserve Bank and explained how the Bank controlled its risks. Quite a lot has happened since then, both within the Bank and in the way the business community views risk management. In our third article - *Risk management in the Bank: a 2003 perspective* - we provide an update of our approach to risk management in the Bank, including by reference to the devices we use to identify, monitor and control the risks associated with our two main functions – monetary policy and banking supervision.

Following the terrorist attacks in September 2001, there have been a number of developments in measures to combat the financing of terrorism. Our fourth article - *International efforts to combat the financing of terrorism* - discusses the characteristics of terrorist financing and summarises the international initiatives to counter the financing of terrorist activities, including measures taken by the United Nations, the Financial Action Task Force, regional bodies and national authorities. It then discusses in greater detail the actions that have been taken by the New Zealand government in this area.

One of the issues that frequently confronts the Bank is the tendency for the New Zealand dollar to fluctuate quite sharply against other currencies, periodically putting pressure on the exporting sector and generally creating uncertainty in the economy. Although much of this fluctuation in the exchange rate is attributable to factors outside of our control, we

nonetheless seek to minimise any unnecessary effects on the exchange rate arising from our monetary policy actions. In that context, we are currently thinking about whether the Bank can reduce real exchange rate volatility, while continuing to pursue our price stability objective.

To help us in this work, we recently had the benefit of research by a visiting academic with strong credentials in monetary economics, Professor Ken West. The culmination of his work with us was a lecture given earlier this year at Victoria University on the subject of *Monetary policy and the volatility of real exchange rates in New Zealand*. We summarise the main findings of his research in this issue of the *Bulletin*. On the basis of his model, Professor West concluded that there appear to be trade-offs in seeking to reduce variability in the real exchange rate. Reduced variability in the real exchange rate is likely to be associated with increased volatility in other key economic variables, such as interest rates, inflation and real economic growth.

We have also benefited from the research of another visiting academic, Professor Matthew Shapiro. Professor Shapiro's research led to a lecture given earlier this year at Victoria University on the subject of *Has the rate of economic growth changed? Evidence and lessons for monetary policy*. In this *Bulletin*, we summarise the main findings from Professor Shapiro's research, including the fundamental point that

monetary policy can do little to affect the level of productivity in the economy in the long run, but that central banks should still be cognisant of potential changes in productivity of the economy over time, so as to be better informed of the inflation consequences of a given growth rate in total output.

Finally, this issue of the *Bulletin* contains a brief summary of a paper that the Bank has placed on its website. The paper provides a comprehensive description of the main components of the financial system in New Zealand and the regulatory framework governing it, including banking supervision and securities market regulation. It is intended to be a useful reference document for interested parties, including the International Monetary Fund when they conduct an assessment of New Zealand's financial system later this year.

I hope that readers find this issue of the *Bulletin* informative and stimulating.

Geof Mortlock, Financial Stability Department
Reserve Bank of New Zealand
P O Box 2498, Wellington, New Zealand
Email mortlockg@rbnz.govt.nz
Telephone 64-4-471-3949
Facsimile 64-4-471-3800

Recent developments in New Zealand's financial stability

Michael Gordon, Leslie Hull, and Clive Thorp¹

Financial Stability Department

This article assesses the current state of, and threats to, financial stability in New Zealand. It does this against a backdrop of continued softness in global growth and in corporate credit quality abroad. It concludes that New Zealand's financial sector has remained resilient despite continued global economic weakness, and there do not appear to be any immediate concerns for financial stability locally. Banks are well capitalised, with sound asset quality and strong parent banks, and corporate credit quality remains satisfactory. New Zealand household leverage is high by the standards of many countries, though not by comparison with some of the more advanced economies of the OECD. While household gearing and debt servicing payments have remained stable, highly indebted households are vulnerable to interest rate volatility.

1 Introduction

This article discusses recent developments in international and domestic markets, and the implications of these developments for financial stability in New Zealand. Last year's review of financial stability developments occurred at a particularly fragile point in the economic cycle, and there were serious concerns about financial sector stability in some regions.² Since then, market sentiment has noticeably improved, although this new-found confidence has only recently been borne out in macroeconomic indicators. Market participants expect an eventual recovery in growth, spurred by interest rates at historic lows in many countries, and the recent downward correction in the US dollar.

Despite signs of cyclical improvements, many structural issues continue to present risks around the world. These include:

- high levels of corporate debt, particularly in the US;
- US pension plan under-funding;
- accounting and regulatory issues for US mortgage financing agencies;
- fragile German and Asian banking sectors; and,
- global savings/investment imbalances.

External shocks may impact on New Zealand's real economy and financial sector through either interdependence or contagion. Interdependence is the propagation of shocks through linkages such as international trade and foreign ownership of firms. Contagion is the propagation of shocks over and above what can be explained by inter-linkages, and can be associated with changes in investor risk aversion. New Zealand is a small open economy with many inter-linkages, including foreign ownership of the banking sector, exposures within the banking system to connected parties, trade links with other countries, and foreign company involvement in our economy.³ It is for these main reasons that we monitor and report on economic and financial developments in other parts of the world.

Despite these inter-linkages, New Zealand has been sheltered from many of the imbalances seen elsewhere. Banks in New Zealand are well capitalised, and while sharemarket declines have affected pension fund returns, New Zealand corporates are not facing material under-funding. The main structural risks revolve around continuing reliance on foreign capital, particularly in the household and agricultural sectors. The rise in indebtedness in these sectors continues to outpace income growth, and this trend is unlikely to be sustainable over a long period of time.

¹ We would like to thank Ian Harrison, Geof Mortlock, Adrian Orr, and Ian Woolford for helpful comments.

² See Gereben, Hull, and Woolford (2002).

³ See Woolford (2001) for a more detailed discussion of these linkages.

Like many other countries, New Zealand has seen strong growth in house prices over the past year. However, in contrast to other countries, a significant proportion of the growth can be explained by fundamentals, such as strong migration and income growth.

New Zealand has not only weathered the global downturn, it has experienced strong GDP growth in recent years. Looking ahead, New Zealand's growth is expected to slow over the next year, which could weaken balance sheets in the corporate sector, including the banking sector. More broadly, interest and exchange rate risks to indebted sectors and the economy as a whole remain a key component of the financial stability picture. In an environment of strong economic growth and low interest rates, debt servicing has remained fairly stable, despite higher indebtedness. However, should interest rates rise materially at a later stage in the economic cycle, debt servicing could become more problematic for highly indebted entities. Further strengthening of the New Zealand dollar may lead to a widening of the current account deficit, further increasing our already-large external debt position.

While these are potential vulnerabilities, they should be seen in the context of sound macroeconomic policies, low public debt, strong incentives for prudent risk management, and a floating exchange rate to cushion against external shocks. These positive factors have played a significant role in New Zealand's financial system remaining in good health despite continuing global weakness.

2 Global market developments

In monitoring global developments from a financial stability perspective, it is useful to distinguish between cyclical and structural issues. Cyclical pressures correspond to shocks and can be expected to correct themselves over time – generally in an orderly manner. Structural issues tend to build up over time and result in heightened vulnerability in the face of cyclical pressures. Structural imbalances often correct themselves in a disorderly manner, disrupting financial markets and, depending on the nature of the imbalance, causing very large economic losses. We monitor both cyclical

and structural pressures in New Zealand and around the world in order to identify potential macro-financial stability risks to New Zealand.

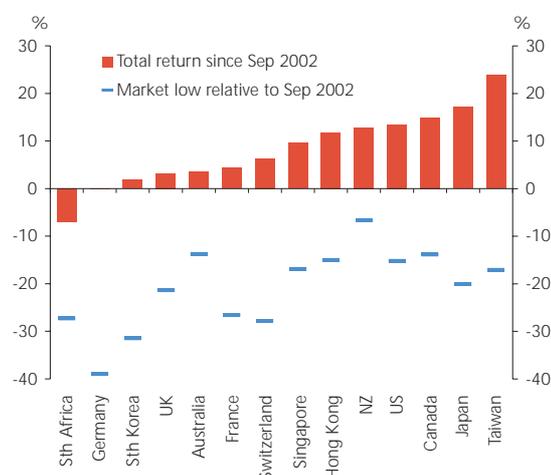
2.1 Cyclical issues

The high degree of integration in world markets means that the cyclical aspects of New Zealand's exchange rate, interest rates and equity prices are strongly influenced by what happens overseas, particularly in the US, Australia and Asia. This directly affects the cost and availability of funding from offshore, which New Zealand requires to meet its ongoing current account deficits. In addition, global market conditions both reflect and influence the underlying real activity of the world economy, which drives demand for New Zealand's exports and the financial condition of exporter firms.

Global economic developments

Recent trends in world financial markets reflect a perception of improved economic growth prospects. Equity markets in most countries are higher than they were a year ago, although they have been highly variable during this time (figure 1). In October last year, many equity indices plunged to new lows for the current economic cycle, and interest rates also fell sharply. At the time, the confidence about a recovery that was apparent in the first half of 2002 had evaporated, as economic growth indicators weakened and

Figure 1
Global equity market performance since September 2002



Source: Bloomberg.

corporate profits fell short of somewhat optimistic forecasts. Since then, equities have made a strong recovery on renewed hopes that the worst is over, and that the monetary and fiscal stimulus over the last two years will be enough to kick-start growth.

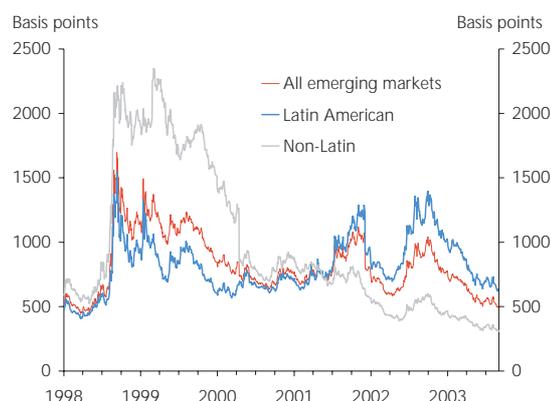
Even so, the global recovery is expected to benefit some regions more than others. Euro zone economic growth was close to zero in the first half of this year, and the gap between growth forecasts for Europe and the rest of the world has widened. In addition to weak domestic demand, the euro has risen by about 15 per cent against the US dollar in the last year alone, which has further reduced the competitiveness of European exporters and import-competing industries.

Asia bore the brunt of the impact of the SARS epidemic earlier this year, and many Asian countries are expected to report a sharp fall in GDP as a consequence. The direct impact of the outbreak was temporary, and some activity will have been delayed rather than cancelled, but it came at a time when growth in the Asian region was struggling to gain momentum. Recent forecasts, including those by the IMF, anticipate a recovery in growth rates across much of Asia.

Investor risk appetite

Investors' appetite for riskier assets has improved immensely, and with this has come a 'search for yield', resulting in strong demand for low-rated corporate bonds and emerging market debt. US corporate credit spreads have narrowed, albeit to levels that are consistent with only modest economic growth. Sovereign credit spreads in most emerging market economies have narrowed significantly, and global investors are not differentiating between countries or regions to the same extent as a year ago. In fact, spreads in some regions are lower now than they were prior to the financial crisis in late 1998 (figure 2). There is a risk that, as in the past, over-optimistic investors may have pushed yields down too far, so that market prices overstate the true outlook and mask potential vulnerabilities. However, there are some genuine indications that credit quality is beginning to improve. Standard & Poor's estimate that worldwide bond defaults in the year to June totalled USD 44 billion, which is above average but down substantially from the previous year.

Figure 2
Emerging market sovereign bond spreads



Source: JP Morgan.

Corporate profitability

Corporate profitability appears to be strengthening, as evinced by the 1,336 companies in the Dow Jones Total Market Index that posted second quarter earnings (as of 22 August 2003) over 50 per cent higher than a year earlier.⁴ However, the growth in profitability appears to have come through cost cutting, rather than increased sales. Some commentators have suggested that the lack of growth in jobs could undermine the recovery. While profitability has strengthened, US corporate credit quality has continued to deteriorate, contributing to the longest credit quality decline on record according to Moody's Investor Service. Rating downgrades have outpaced upgrades for 21 consecutive quarters. However, Moody's expects a turnaround in the next 18 months, and 74 per cent of ratings outlooks are favourable, as compared with 40 per cent this time last year.

Equity market valuation

There is some concern that equity market valuations may still be overly optimistic, particularly in the US and Japan. The perception of overvalued markets can lead investors to expect a market correction, and as a result, defer investment. Price-to-earnings (PE) ratios are a common indicator of market valuation, and values between 15 and 20 are generally considered to be indicative of a sustainable valuation on the basis of historical norms. While there has been a recent correction in the US S&P 500 PE ratio, it still remains high from a historical perspective (figure 3). For Japan, the Nikkei

⁴ Reuters (2003).

225 median PE ratio is 46.5, suggesting a high degree of overvaluation in the Japanese share market.⁵

Figure 3
Trailing price-to-earnings ratio for S&P 500 firms

Shaded regions indicate US recessions.



Source: Bloomberg.

House prices

Housing valuations are also attracting attention around the world. With poor returns from equity markets in the last three years, property has become a popular investment alternative. House prices have been driven upward sharply in many countries, with double-digit growth in the UK, Australia, New Zealand, and some US states. There is mixed evidence as to whether this growth is transitory, due to demographic changes and better access to credit, or a 'bubble' that will eventually contract. For example, in Australia the main driver has been speculative investment in residential property; but rising vacancy rates, low rental yields, and a wave of new housing supply will mean that a correction in house prices could be expected, particularly in Sydney and Melbourne.

The growth in housing investment has also been fuelled by lower interest rates (at four-decade lows in some countries), which has encouraged households to borrow more. Rising indebtedness, in theory, leaves households more vulnerable to a rise in interest rates – a relevant concern, in light of the

⁵ Caution needs to be exercised when assessing share valuation measures, such as PE ratios, given the difficulties in reliably measuring reported earnings, and given that higher PE ratios can be expected in situations where the market is expecting higher-than-normal earnings growth in the future.

sharp rise in bond yields worldwide in the last few months. However, the structure of the debt is an important consideration. In the US at least, mortgages tend to be long-term at fixed interest rates, so while the rise in mortgage rates will discourage new borrowing, it should have little effect on the ability of existing borrowers to meet their interest payments.

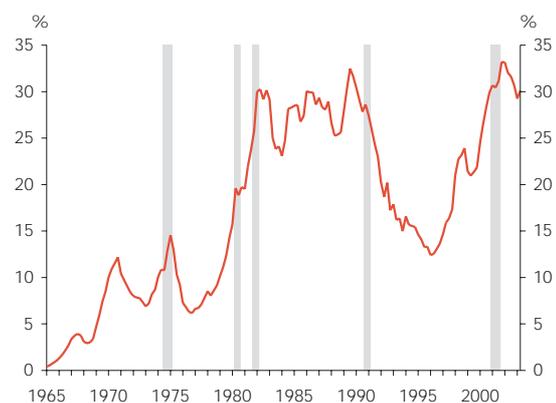
2.2 Structural issues

Corporate indebtedness

A major contributing factor to the shift in market sentiment in the US is a rebalancing of corporate balance sheets and a return to profitability. Corporate indebtedness reached record levels in the last few years, driven by debt-funded mergers and acquisitions in some industries, and more recently, by lower borrowing rates that encouraged firms to increase their leverage. This 'levering up' process has begun to unwind, but debt servicing costs still account for a large portion of corporate profits (figure 4).

Figure 4
Net interest costs as a percentage of profits before interest and tax for US companies

Shaded regions indicate US recessions.



Source: Bureau of Economic Analysis.

Much of the adjustment in corporate balance sheets has come through restructuring rather than reducing debt. Issuance of long-term bonds picked up strongly in the first half of this year, to take advantage of a fall in borrowing rates. The general trend has been to reduce short-term debt obligations, and hence stabilise cash flow, by substituting into longer-term debt. To a degree, this shift has been forced – the short-term commercial paper market tends to be limited

to high quality issuers, so many firms have lost access to the market since 2000 as their credit ratings have fallen.⁶

Pension under-funding

In the United States, under-funded corporate pension plans are a key risk to corporate profitability. Many firms offer plans with guaranteed rates of return, and with world sharemarkets slumping in recent years, these firms have been obligated to make provisions for the shortfall. For the S&P 500 firms with pension plans, this shortfall reached USD 226 billion in June this year, compared to a USD 5 billion surplus at the end of 2001. Without a sharp rise in share prices and interest rates, the requirement to fund pension plans will eat into corporate profits for several years, which may leave firms reluctant to introduce new capital spending plans.

Standard and Poor's undertook a review of Australian and New Zealand issuers' unfunded pensions to see if similar risks were present in the region.⁷ They found that poor share market performance has resulted in some companies having to dedicate a portion of cash flows towards pensions. Moreover, some Australian and New Zealand firms that have entered European and US markets via mergers or takeovers have inherited some of these liabilities. However, they find that overall these exposures are less material than in the US and Europe.

US mortgage financing agencies

The recent volatility in interest rates has highlighted the role of mortgage financing agencies in US financial markets. The two largest agencies, Fannie Mae and Freddie Mac, are publicly-listed institutions that are chartered by the US Congress to buy mortgages from banks and repackage them as securities to be sold into the market. The hedging activities of agencies, in order to neutralise their own interest rate risk, tend to reinforce trends in long-term interest rates. A fall in long-term interest rates increases the chances that households will refinance their mortgages at lower rates. Agencies pre-hedge against this risk by buying government bonds, which pushes interest rates down further. Similarly,

when interest rates began to rise in June this year, agencies unwound some of their hedges by selling bonds. This contributed to a 1.5 percentage point rise in long-term interest rates in the space of two months.

The regulation and transparency of the agencies has recently come into question. Freddie Mac revealed that it understated earnings over the last few years, in order to smooth earnings over time. The US Congress has since begun an investigation into the accounting practices and regulatory oversight of agencies. This is unlikely to dent investor confidence in the same way as recent scandals such as Enron and Worldcom, but there are indications that some investors are reassessing the riskiness of the agency debt market and reducing their holdings. Any significant selling could push interest rates higher and, because agency debt accounts for a growing portion of foreign investment into the US, the US dollar could fall rapidly.

Credit risk migration

US banks have remained highly profitable, and were left relatively unscathed by the recession in 2001. One reason for this is that in recent years they have been able to offload an increasing proportion of their credit exposures through the credit derivatives market. If the issuer of a bond defaults, the seller of a credit derivative is obligated to pay the face value of the bond to the buyer of the derivative.

US banks are believed to be major buyers of credit protection, while insurers and European banks are net sellers. However, the lack of market supervision or a centralised exchange makes it difficult to determine who ultimately holds the risk, and there are concerns that it has ended up largely in the hands of parties with lower disclosure requirements – such as reinsurers – or those who are least able to assess and manage the risks. In October last year, German bank share prices plunged on rumours that massive losses on credit derivatives would cause Commerzbank to fail.

Fragile banking sectors

In addition to the concerns about exposures to credit risk, the German financial sector is burdened by structural issues such as slow income growth, high operating costs and growing loan-loss provisions. However, the banks are making

⁶ See Shen (2003) for a fuller discussion of this point.

⁷ Standard & Poor's (2003b).

progress in cutting costs and shrinking their balance sheets.

The growth outlook for Japan has improved this year, but it remains relatively weak and is unlikely to provide relief to the struggling financial sector. Most banks suffer from a large burden of bad loans, and low profitability limits the rate at which they can write off bad loans and make new loans.

Japan's four largest banking groups have raised over ¥1.5 trillion (NZD 21 billion) in additional capital so far this year, in order to meet regulatory requirements. Resona, the fifth-largest banking group, required a ¥2 trillion (NZD 28 billion) capital injection from the Japanese government after its auditor toughened its stance on the use of deferred tax credits as regulatory capital. (Deferred tax credits, which account for over half of the top-tier capital held by banks, have no value if the bank does not earn taxable profits.)

A recent review of Japan's financial sector (IMF, 2003a) noted that there has been some progress in banking sector reform, but more forceful government action will be required to stop the decline. The review recommended faster bad loan disposals, a recapitalisation of the banking sector through capital markets, and a reduction in the involvement of government-sponsored institutions in the financial sector.

China's banking sector also faces a large and growing burden of bad loans – Standard and Poor's estimates that nearly half of all bank loans may be impaired or in default. Unlike Japan, the Chinese economy is growing strongly, and bank lending growth is accelerating – so much so that there are concerns that banks may be lending imprudently. Much of the growth in lending is going towards commercial property speculation and capital investment in industries that are already facing excess capacity.

US dollar

There is a widespread recognition that the US dollar needs to fall in order to correct the US current account deficit, which is at extreme limits, both in dollar amounts and as a proportion of GDP. However, some Asian countries (particularly China and Japan) have resisted such a move because it would require a substantial rise in their own currencies, which would sharply reduce their export income and possibly jeopardise their growth. These countries have either directly maintained their exchange rate pegs against

the US dollar, or intervened in the foreign exchange market to sell their currencies and buy US dollars.

Central bank intervention in the foreign exchange market accounts for a growing share of capital flows into the US, funding over 20 per cent of the US current account deficit last year. The US dollars purchased by central banks are mostly invested in government and agency debt, which has helped to keep US bond yields low. However, there is a question mark over Asian central banks' willingness to continue funding this deficit, given the potential for losses if bond yields rise further, and the concerns about accounting practices by US agencies.

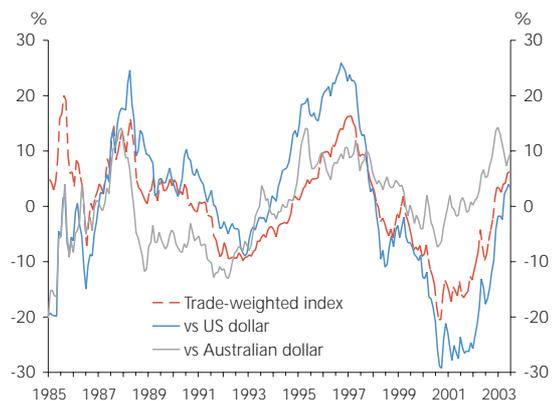
3 Domestic issues

New Zealand has not only weathered the global downturn, it has experienced strong GDP growth in recent years. However, the strong growth of the past year is forecast to decline to some extent, which may result in mild cyclical pressures. Moreover, while New Zealand is not facing some of the structural imbalances still present in many other countries, the savings-investment imbalance remains an issue.

3.1 Cyclical issues

In recent years, the weakness of the New Zealand dollar has shielded the local economy from the downturn in world growth. However, the trade-weighted index has risen by almost 20 per cent in the last year, and is now slightly above its long-term average (figure 5). Although the currency was expected to eventually return to more normal levels, the

Figure 5
NZD relative to post-float average



Source: Reuters and RBNZ.

speed of the appreciation has taken most by surprise. Given that previous exchange rate cycles have been in the range of 15-20 per cent either side of the average, exporters are concerned that the currency could rise even further if this pattern continues.

New Zealand's interest rates are relatively high when compared with rates in other developed countries - despite the recent reductions in the OCR - and have played a role in attracting offshore investors. However, interest rate differentials do not completely explain the New Zealand dollar's performance. Another key factor is that global investors have been more willing to hold riskier assets in the last year or so, whereas previously they had favoured 'safe' investments such as US dollar assets, despite the low rates of return that they offered. Growing confidence about a global recovery means that investors have favoured those economies perceived to be best placed to benefit from it - that is, countries reliant on overseas trade such as New Zealand, Australia, and Canada.

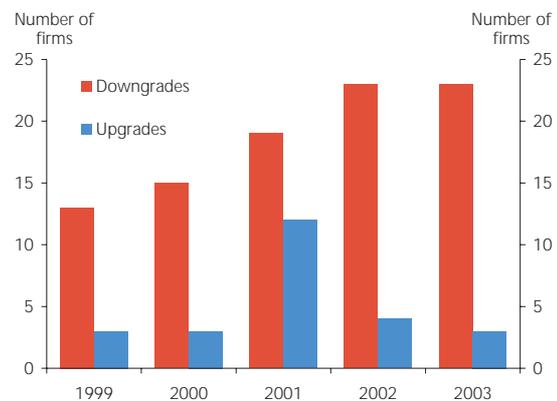
The rapid rise in the New Zealand dollar has reduced the competitiveness of exporters, and there are anecdotes of small and medium-sized firms reducing staff or moving production overseas in response. Large exporting firms have indicated that they are adequately hedged for the next year or so, but after that they will face lower revenues and write-downs of asset values if the dollar remains near current levels. But so far, there are no indications that the stronger currency has reduced firms' ability to meet their debt obligations.

Corporates

Data on corporate indebtedness is not as readily available for New Zealand corporates as it is for US corporates.⁸ The rating agency Standard and Poor's (2003a) recently noted that credit quality for industrial and infrastructure firms in New Zealand and Australia (where many firms operating in New Zealand have branches or head offices) weakened further in the past year, with 23 ratings downgrades and only three upgrades (figure 6). The predominant risk factors were event risk, with some notable deterioration in the insurance and funds management sectors, and ongoing debt-

⁸ We are currently working to obtain reliable data on corporate sector liquidity, leverage, and profitability in New Zealand.

Figure 6
Australia and New Zealand credit rating changes

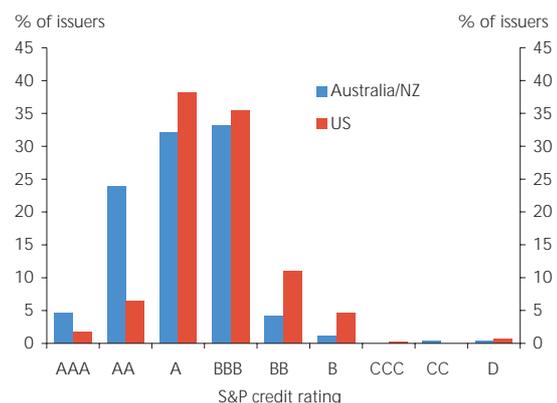


Source: Standard and Poor's and RBNZ calculations.

funded mergers and takeovers in some industries, which has been a global trend. Credit quality as a whole remains stable for rated companies, and is expected to remain so in the near future.

Despite following the global trend in ratings downgrades, New Zealand and Australia's rated issuers are still strong (figure 7), with over 60 per cent of rated corporates having a rating of "A" (strong capacity to pay) or better, and another 33 per cent rated BBB (adequate capacity to pay).

Figure 7
Distribution of credit ratings⁹



Source: Standard and Poor's, Bloomberg, and RBNZ calculations.

⁹ A strict comparison between countries is made difficult by potential differences in the sectors represented in each region. Moreover, the data represent all available ratings for New Zealand and Australian firms, but only S&P 500 firms for the US.

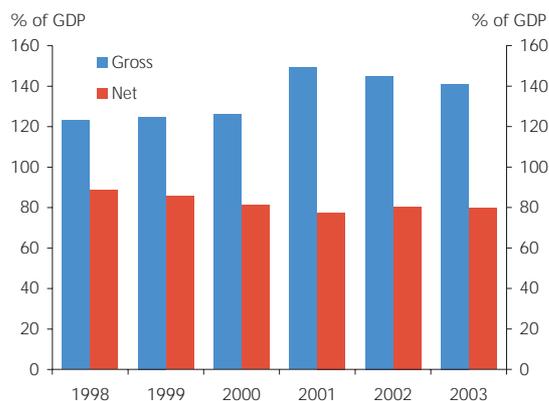
3.2 Structural issues

External indebtedness

The degree of New Zealand's external indebtedness is often cited as an indicator of potential vulnerability, and examples of this can be found in recent IMF Article IV reports.¹⁰ The latest report noted that New Zealand's external debt position is unusually large by developed country standards, but that there are a number of mitigating factors – such as the high degree of hedging, sound macroeconomic policies and settings, healthy bank balance sheets, and so on – that lead to a more benign view of external indebtedness.

New Zealand's gross investment and net international investment, both relative to GDP, have remained fairly stable over the past several years (figure 8). Strong GDP growth has at least kept pace with external borrowing.

Figure 8
Gross and net foreign investment in New Zealand



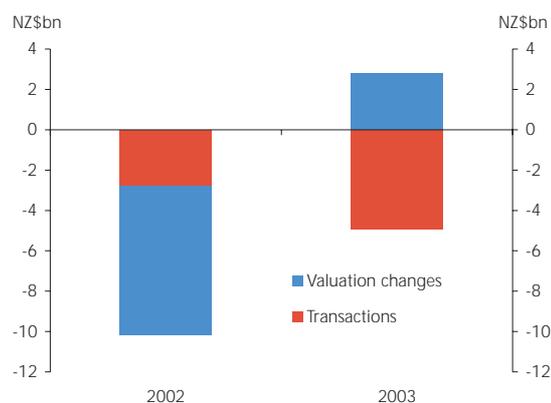
Source: Statistics New Zealand.

New Zealand's net international investment position (IIP) is the value of New Zealand's investment abroad less the value of foreign investment in New Zealand, and is the best measure of our net liabilities to overseas investors. New Zealand's net IIP worsened by \$2.1 billion between March years 2002 and 2003, to \$100.4 billion in net liabilities. Changes in the IIP are caused either by new transactions or through valuation changes. Transactions can be thought of as active New Zealand investment abroad and foreign

investment in New Zealand, whereas valuation changes are a function of changes in exchange rates and changes in the market prices of existing assets and liabilities. Valuation changes do not systematically increase or decrease net liabilities; the direction and magnitude of valuation changes depends on the currency, asset composition, and performance of assets and liabilities.

Persistent current account deficits have resulted in net borrowing that has worsened New Zealand's net position by about \$8 billion over the past two years (figure 9). However, valuation changes have played almost as large a role, adding about \$7 billion to New Zealand's net liabilities in 2002, although \$3 billion of this was reversed in the year to March 2003.

Figure 9
Composition of change in net international investment position (March years)¹¹



Source: Statistics New Zealand and RBNZ calculations.

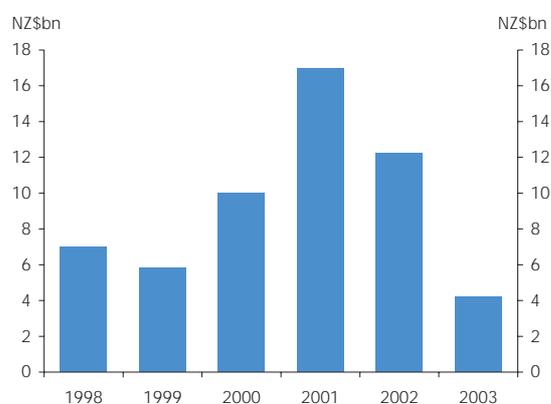
The decline in global foreign direct investment

Current account deficits require offsetting acquisitions of financial assets by foreigners, which are recorded in the financial account as capital inflows. These inflows can be in the form of foreign direct investment (FDI), portfolio equity or debt flows, or other flows, such as loans, deposits, or

¹⁰ See IMF (2003b). Every member of the IMF has an annual consultation with IMF staff. These assessments are often published, and examples of recent New Zealand reports that include vulnerability assessments can be found on the IMF website (<http://www.imf.org/external/country/NZL/index.htm>).

¹¹ These figures are subject to a degree of error arising from the existence of errors and omissions in compiling the Balance of Payments statistics. Every country faces errors and omissions in the compilation of these statistics, so this problem is not unique to New Zealand.

Figure 10
Foreign investment in New Zealand (March years)¹²



Source: Statistics New Zealand

trade credits.¹³ Inflows to New Zealand were lower in the year to March 2003 than in the previous few years, and a contributing factor was a significant decline in inward FDI.

The decline in FDI is not a New Zealand-specific phenomenon. A recent OECD report shows that global foreign direct investment flows have declined considerably since the late 1990s.¹⁴ The report attributes some of the decline to uncertainty and the global slowdown. In particular, preliminary data for 2001 and estimated data for 2002 imply that FDI outflows from OECD countries were almost half of what they were in 1999 and 2000. About 80 per cent of the stock of FDI into New Zealand originates from OECD countries, so it is not surprising that New Zealand's FDI inflows have dropped significantly in the past two years.¹⁵

There is an ongoing debate among economists about the 'quality' of capital flows. The Asian crisis demonstrated that a high proportion of 'hot money' (i.e. easily reversible capital inflows) is not as desirable as longer-term flows. FDI is often considered a long-term lasting commitment, and therefore

a 'better' type of capital inflow. On the other hand, countries engaged in FDI can also undertake offsetting financial arrangements, so that FDI may not be as 'fixed' as it appears.

It is important that New Zealand can continue to be able to fund its current account deficit. Creditworthiness is a judgement made by investors, and is a function of the credibility of government policies, sound infrastructure, and debt sustainability, amongst other things. Should GDP growth slow significantly while borrowing remains the same or increases (as both are forecast to do), gross liabilities relative to GDP will increase further.

Households

New Zealand households are notable for holding a high proportion of their wealth in housing, and for low levels of financial assets relative to disposable income, compared to most other OECD countries.¹⁶ Since 2000, net financial wealth has fallen sharply, and borrowing for housing has picked up – because of falling interest rates and a strong economy – while managed fund and direct equity investment values have fallen. However, a rise in the value of housing has more than offset the decline in net financial assets (see table 1, overleaf).

The institutional allocation of household financial assets and liabilities is shown in Table 2.¹⁷ Household liabilities are mostly owed to banks, and are predominantly housing loans secured on private residential dwellings. Household deposits at banks have risen at an annual rate of about 10 per cent since early 2001, in contrast to the late 1990s, when deposits grew by less than 2 per cent per year.

The recent acceleration in deposits appears in part to be a process of portfolio reallocation, as households withdrew from managed funds, presumably as a result of the value losses that have occurred since 2000. Anecdotal evidence suggests that some households have used these withdrawals to purchase rental property. A growing proportion of new dwellings are apartments for rent in cities, especially Auckland, taken up by a swelling foreign student population

¹² The data from 2001 onwards is not directly comparable to data from previous years because of improvements in data collection techniques.

¹³ For more detail on the different categories of the balance of payments accounts see St. Clair, Tether, and White (1998).

¹⁴ OECD (2003).

¹⁵ Statistics New Zealand has indicated that FDI inflows in 2001 were particularly strong and not good benchmarks to measure against. However, inflows in the years to March 2002 and 2003 were low when compared to inflows over the past several years.

¹⁶ Gereben, Hull, and Woolford (2002).

¹⁷ Household financial assets at banks in this table include around \$2 billion in solicitors trust accounts at banks, estimated to be 'secondary' household deposits.

Table 1
Household wealth as a percentage of household disposable income

As at December	1990	1995	2000	2002
Equities (of which offshore equities)	35% 10%	55% 20%	65% 35%	50% 25%
Other financial assets	130%	140%	130%	135%
Total financial assets	165%	195%	195%	185%
Financial liabilities	65%	90%	120%	130%
Net financial wealth	100%	105%	75%	55%
Housing value	250%	310%	320%	355%
Net wealth	350%	415%	395%	410%

Source: RBNZ, SNZ, and NZIER.

and younger people delaying household formation and purchase. If the recent influx of foreign students weakens, individuals that have invested in apartments for student housing may find that the returns are less than anticipated.

Household debt is currently around 130 per cent of disposable income (table 1), driven in recent years by strong net inward migration, low levels of unemployment and a period of relatively low interest rates (and enabled by the relatively robust growth in disposable income). With a greater stock of outstanding debt to income, an increase in interest rates will have a greater impact than was the case in previous years. Hence, it is important to consider the extent to which the household sector is geared and its debt servicing costs.

Some housing debt is actually borrowing for small business purposes, which is secured on residential property. We estimate that the small business share of housing lending was around 4 per cent in 1990, but it has risen and may be around 10 per cent today. After excluding the estimated business share, the trends in household gearing are similar to those observed in Australia (figure 11, opposite). The rise in the value of housing has caused gearing to fall over the last year or so, notwithstanding the relatively fast rates of growth of borrowing.

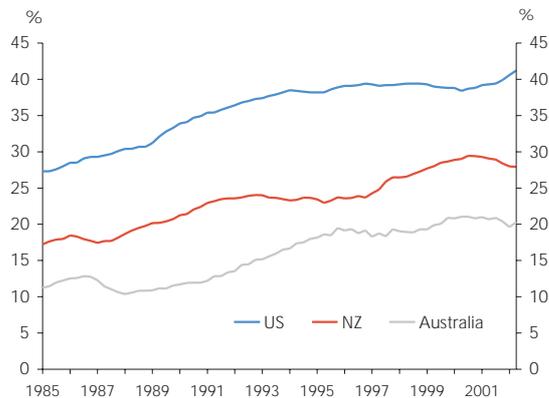
Table 2
Allocation of household financial assets and liabilities

(In NZ\$ billion)

As at December	1990	1995	1998	2002
Household financial assets with:				
Banks	29	39	43	52
Other deposit-taking institutions	3	4	4	6
Fund managers	25	38	46	48
Direct equities	9	13	16	15
Non-institutional market	6	6	6	7
Total	72	100	115	128
Household liabilities with:				
Banks	20	41	56	76
Other deposit-taking institutions	2	3	3	5
Fund managers	4	1	3	5
Direct equities	-	-	1	2
Non-institutional market	2	2	2	3
Total	28	47	65	91

Source: RBNZ and NZIER.

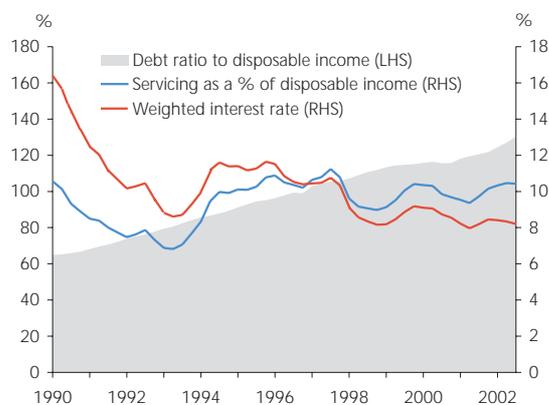
Figure 11
Ratio of household debt to housing value



Source: Federal Reserve, RBA, and RBNZ estimates.

Given that household gearing has slightly declined recently even though loan values are rising, servicing costs provide a useful check on potential risks arising from greater indebtedness. Interest servicing costs for loans secured on residential housing have been fairly stable, at around 10 per cent of disposable income since the mid-1990s (figure 12). Servicing costs for the typical borrower are likely to be higher than this, as almost half of all residential dwellings are estimated to be mortgage-free.¹⁸ Excluding the estimated interest costs for rental property and business loans, the ratio is closer to 7 per cent, which is similar to the figure for Australia.¹⁹

Figure 12
Interest servicing costs as a percentage of disposable income



Source: RBNZ and SNZ.

The household sector appears to have no difficulty in servicing the current interest (and principal repayment) costs. However, the trend towards higher levels of debt over the last few years means that households are potentially more vulnerable if housing loan interest rates begin to rise from their historically low levels. The impact of interest rate changes will be spread over time, depending on the structure of household lending. About 60 per cent of housing loans are at fixed rates, although over half of these loans have less than a year until the next interest rate 'fixing'.

Considering the relatively lower level of gearing, and a slowdown in the pace of net immigration that is expected to be modest, the risks to financial stability from the recent rise in household sector borrowing do not seem to be any greater now than in the mid-1990s.

3.3 Agriculture sector

Loans to the agriculture sector (farmers and 'agribusiness') are a large component of registered bank balance sheets, comprising a third of their non-household domestic lending. Within that third, over \$18 billion, or more than 80 per cent of the agriculture sector total, are loans to farmers. Because of the relatively large exposure of the banking system to the agricultural sector, we monitor the sector separately from other business sectors.

One issue of interest is the distribution of agricultural sector lending. The market for farm loans is relatively concentrated. Six banks hold over 98 per cent of bank farm debt, but of these, two banks hold more than 55 per cent of the banking system's loans to farmers. Agriculture sector specialist Rabobank is the most exposed to the farming sector, as this sector makes up 65 per cent of their total domestic loans. National Bank's exposure is about 20 per cent of total domestic loans and the other four banks active in the sector have average exposures that are less than 10 per cent.²⁰

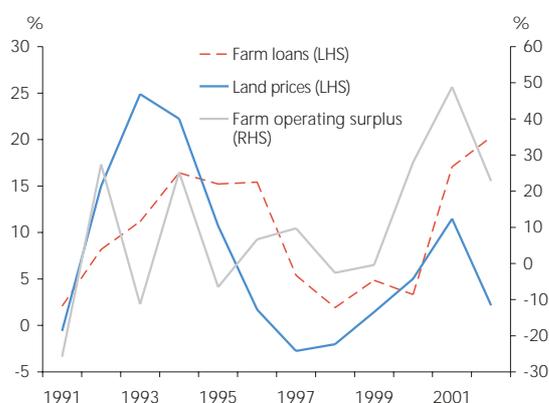
The farming sector is subject to volatile income fluctuations. These fluctuations influence land prices and lending growth rates with varying lags, and can give rise to uncertainty about risks in farm lending. Figure 13 illustrates the annual

¹⁸ Non-rental, non-farm, residential dwellings (including unoccupied dwellings).

¹⁹ Macfarlane (2003).

²⁰ Of course, banks undertake credit risk management strategies based on the composition of their loan portfolio.

Figure 13
Rural land prices, farm loans outstanding, and
farm operating surplus
(annual percentage change)



Source: MAF, QVNZ and RBNZ.

percentage rate of growth of rural land prices, farm loans, and farm incomes (before net interest costs) for the past decade. Farm incomes grew strongly for several years into the early 1990s and land prices recovered strongly from the late 1980s lows. Loan growth for farm purchases lagged the rise in land prices. Peak farm loan growth rates occurred in the mid-1990s to finance the turnover of higher-priced farms. From 1993, the rate of growth of farm land prices abated and their level hardly changed from 1995 to December 1999, despite modest growth in farm incomes.

In the June 2000 year, pastoral farm incomes grew strongly, with strengthening markets and a weakening currency contributing to better earnings. For the next two farming seasons, strong overseas markets, good weather, a low currency, and falling interest rates all continued to support farm incomes, which in 2002 were two and a half times the income of three seasons earlier. Again, farm loan growth rates lagged this income rise, with the first full season of much improved incomes not reflected in borrowing.

In mid-2001, at the end of the second season of accelerating farm income growth, the level of farm debt was around 10 per cent above the previous year. Annual rates of growth of farm debt topped out around 20 per cent in 2002. In this recent cycle, land price effects have not been as strong as previously. In the first cycle, the aggregate rural land price index almost doubled, whereas the gain was only 20 per cent in the second five-year period.

The strong growth in farm debt raises questions about the

ability of the sector to service its debts going forward.²¹ Growth in farm incomes in 2001 and 2002 were exceptional, at roughly double the average for the previous five years. Moreover, Ministry of Agriculture and Forestry forecasts of farm annual operating surplus out to 2007 are still relatively strong (at around 80 per cent of the 2001 and 2002 years). If these forecasts eventuate, income gains appear to provide significantly greater debt servicing capacity in the sector than was the case in the 1990s, despite higher debt loads.

4 Conclusion

This paper has provided an overview of the state of financial stability in New Zealand and has highlighted continued resilience in New Zealand's banking, corporate, and household sectors. We conclude that New Zealand continues to be well placed to weather continued slow global growth as well as the forecast slowdown of the domestic economy.

The external sector still faces many challenges. There are signs of a pick-up in the US economy. However, there are doubts as to the sustainability of the recovery, as shares remain highly valued, and increased earnings may reflect cost cutting rather than revenue increases. Moreover, corporate credit quality in the US continues a 21 quarter decline – the longest on record. The German and Japanese banking systems remain fragile, and European growth prospects remain low.

In New Zealand, relative to last year, we see a slightly higher degree of risk around household and agricultural indebtedness, growth in house prices, and the current account deficit. Net debtors are vulnerable to the interest rate cycle. The higher exchange rate and continued weakness overseas is expected to enlarge the current account deficit, which will put upward pressure on gross and net external debt. Moreover, from a cyclical perspective, the outlook is slightly weaker for the near-term performance of the

²¹ It should be noted that while gearing levels for the farm sector have increased over the past three years, it appears that the degree to which this has occurred is not significant in aggregate. One study of farm debt (Wilkinson and Jarvis (2000)) suggested that larger farms had higher gearing, but for sheep and beef farms the ratio of liabilities to gross income decreased as farms grew in size, and remained constant for dairy farms, suggesting viability is not reduced by this higher gearing level.

economy than it has been over the past year. This may have a negative impact on corporate profits and balance sheets.

While we have noted several potential vulnerabilities, we believe that there are no immediate threats to New Zealand's financial stability. Banks remain well capitalised and profitable, fiscal policy is sound, and inflation remains low and stable. Corporate credit quality is stable and is expected to remain so over the next year.

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Neutral real interest rates revisited

Nils Björkstén and Özer Karagedikli, Economics Department¹

Monetary policy decision-making commonly involves setting interest rates to stimulate the economy and prevent deflationary forces gathering momentum, or to constrain the economy and prevent inflationary forces gathering momentum. In setting interest rates, therefore, one needs to know what level of interest rates will stimulate and what level will constrain economic activity. Whereabouts is the dividing line? This is the question that we address in this article. It turns out that it is very difficult to come up with a precise answer, as a range of different analytical approaches provides a range of answers.

In the process of trying to identify the “neutral” interest rate that is the dividing line between stimulatory and contractionary, we discuss its evolution through time. We also note that, after allowance for inflation, and for a decline in the inflation-adjusted neutral interest rate, the neutral interest rate in New Zealand remains high relative to comparable countries. Although possible reasons for the decline and for the relatively high level in New Zealand are ventured, they are not the prime focus of this article.

1 Introduction

Monetary policy today is conducted by adjusting interest rates with the end objective of keeping inflation over the medium term within the specified target band of 1-3 per cent per year. If there is a danger of inflation rising above this range, interest rates raised high enough for long enough will remove stimulus from the economy and eventually bring inflation back down or even prevent it from rising in the first place. Likewise, persistently low interest rates add stimulus to the economy and will eventually increase inflation. Accordingly there is some middle-ground interest rate which would correspond to a neutral monetary policy setting. At this interest rate, known as the *neutral nominal interest rate*, monetary policy would neither add nor subtract stimulus to/from the economy, and inflation would neither rise nor fall in the absence of shocks to the economy or other imbalances. The *neutral real rate* (NRR) can be thought of as this interest rate minus the expected rate of inflation.

In most circumstances, monetary policy settings will not be at neutral. Monetary policy has a job to do, namely to keep prices reasonably stable, even as economic events unfold that push the economy sometimes toward booms in activity, and at other times toward slowdowns and more difficult business environments. With this objective in mind, an appropriate interest rate stance at any given time may involve interest rates above or below neutral settings, offsetting the forces that would otherwise push inflation too high or too low.

Accordingly, when conducting monetary policy, decision-makers implicitly take a position on where the NRR lies, because they need to reflect on just how much stimulus current interest rate settings might be adding to/subtracting from the economy. Here it is the *level* of interest rates that matter. While *changes* in interest rates can affect business and household confidence, expectations and price-setting behaviour, this is far from the whole story. Thus, for example, if real interest rates remain unchanged at a level that is clearly and consistently lower than the neutral level, people will continue to find it attractive to borrow to bring expenditure forward, and unattractive to lend or save. Conversely, if real interest rates are at a level that is clearly above the neutral

¹ We are grateful for many helpful comments received from friends and colleagues at the RBNZ, with particular thanks to David Archer and Geof Mortlock. We have drawn insights from various internal sources, and wish to acknowledge our intellectual debt to Joanne Archibald, Leni Hunter and Chris Plantier. Wesley Thompson provided valuable technical assistance. Remaining errors and omissions are our own.

rate, economic activity will be continuously constrained, even if they remain stable.²

At the same time, the NRR itself cannot be observed directly. Its level can only be inferred by observing the behaviour of inflation in response to monetary policy once all other inflation-affecting factors have been controlled for. Unfortunately, controlling for all factors that affect inflation is no easy task, which makes the NRR rather hard to nail down with much confidence.

Does this matter? In a practical policy sense, it is perhaps not so serious. Policy-makers routinely deal with a great deal of uncertainty already in determining just where the economy is at the moment and in which direction things are developing, as well as how quickly and how seriously shocks to exchange rates, migration, oil prices, growth in trading partners, among other factors, will affect business activity, and ultimately inflation. Under such circumstances, sound judgement based on experience, plus a sense that monetary policy is either broadly stimulatory or broadly contractionary, may be enough. While getting the level of the NRR wrong may temporarily lead to either excessively stimulatory or contractionary levels of interest rates, it could be expected that the monetary authorities will realise this and correct policy once inflation starts to surprise upwards or downwards.³

Nevertheless, as this article demonstrates, there is sufficient uncertainty about the “true” level of the NRR that significant time can elapse before it becomes obvious that the authorities’ understanding of the NRR is wrong. For this reason, and especially if the NRR is likely to be changing through time, it is important periodically to revisit assumptions made regarding the NRR.

The remainder of this article is structured as follows. Section two explains why it might be more reasonable to think of a time-varying NRR than one which is constant over time.

² Note that if inflation is pushed up or down (respectively) in these examples, a constant *real* interest rate requires a changing *nominal* interest rate. If inflation is accelerating, the nominal interest rate can be increasing at the rate that inflation is expected to rise without the real interest rate changing.

³ The cost of under- or over-estimating the NRR may not be symmetric. In particular, Orphanides and Williams (2003) argue that the cost of under-estimating the NRR is greater.

Section three presents a range of simple indicators that could in principle shed light on the evolution and level of the NRR. Section four provides various model-derived estimates of the evolution of the NRR in New Zealand. Section five discusses why the NRR may be higher in New Zealand than in other countries. Section six summarises and concludes.

2 Why might the NRR change over time?

Under stable conditions, the NRR represents the point at which the supply of and demand for loanable funds is matched, which in New Zealand largely implies a willingness of foreigners to lend and New Zealanders to borrow in New Zealand dollars. As such, the NRR is affected by a number of factors, many of which may be time-varying. Such factors include anything that might affect country risk, including perceptions of fiscal soundness, a reliable monetary policy framework, perceived robustness to exchange rate shocks and a sustainable external debt. Other factors include trend productivity growth, stability of inflation expectations and appetite for debt. To the extent that some of these factors change or can be affected by policy decisions, the NRR may also change.

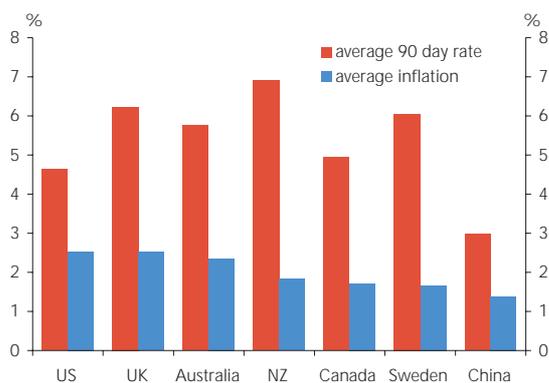
Would such changes be material enough to matter for practical policy purposes? If there is evidence of a substantial observed shift over time in the level of the New Zealand NRR, the answer to this could be yes. This is because a standard approach to estimating the NRR is to observe an extended period in history during which inflation has been roughly stable, and calculate the NRR as the average prevailing interest rate minus the inflation rate⁴. This approach makes sense if we expect that, over time, exchange rate fluctuations, randomly occurring economic shocks and other elements of boom-bust cycles roughly cancel out, so that their net effect on the economy is neutral. Likewise, if inflation has been stable, and the economy has on average been healthy, the monetary policy that has been offsetting the cyclical factors in order to stabilise inflation must also, on

⁴ There are in fact several questions that need to be addressed in following this approach. For a good exposition of the issues in the context of New Zealand, see Archibald and Hunter (2001).

average, have been neutral. But it will give misleading estimates if the NRR has in fact been changing through time.

Figure 1 shows the average inflation and interest rates for a number of countries between 1992 and 2002. When we subtract the average inflation rate from the average 90-day rate in New Zealand, we arrive at an average real short-term interest rate that is close to 5 per cent. This seems implausibly high to be a true representation of neutral, considering that it implies that an Official Cash Rate level up to 7 per cent would normally be adding stimulus to the economy. An average that seems too high suggests that the NRR has been trending downwards over time, from levels higher than 5 per cent during the early years of the 1990s to lower levels today.

Figure 1
Average inflation and average nominal interest rates in New Zealand and elsewhere, 1992-2002



Is it plausible that the NRR might have declined in New Zealand to an extent that makes a 5-plus per cent average real rate a bad estimate of the current NRR? There are several reasons why the NRR might have declined. One is that the NRR may have increased in the 1980s, and has been returning toward more normal levels since. It should be recalled that the programme of reforms in the 1980s and into the early 1990s led to a fundamentally changed economic environment, including much better access to international financial markets. To the extent that New Zealanders' access to credit improved dramatically, an upward adjustment in debt-to-income ratios might be expected. This adjustment might justify a temporarily higher NRR for some time following financial liberalisation reforms. Because of the pent-

up demand for credit, borrowing activity might need to be restrained by monetary policy initially in order to keep the pressure on the economy's productive resources at sustainable levels with respect to inflation control.⁵

Other factors may also have exerted a downward influence on the NRR, such as gradually receding fears of renewed inflation, as inflation targeting established a successful track record, or greater foreign investor confidence in the New Zealand economy over time, as fiscal consolidation proceeded and various external crises were successfully weathered.

External factors are almost certainly at least partly responsible for the decline in the NRR. New Zealand is a small economy, and long-term interest rates depend a great deal on the evolution of long-term rates abroad. As it happens, long-term rates overseas have trended downwards over the past decade, perhaps because of broad fiscal consolidation in Europe and (until recently) in the United States, as well as decreased fear of renewed inflation or lately even an increased perceived risk of deflation. New Zealand-specific factors, to the extent that they differ from common factors that have affected a 'world NRR', would only explain the evolution of a differential between NRRs here and abroad.

None of this suggests that a trend decline in the NRR over the past decade would necessarily continue, either in New Zealand or overseas. As mentioned above, the drivers of the NRR probably also include such variables as productivity growth, whereby an economy that becomes more productive should (in the absence of any other factors) see an increase in the NRR. This is because an increase in productivity growth raises the rate of return to investment, and as a result, the neutral real interest rate increases to balance saving and borrowing. Thus, if the United States and/or Europe see a trend increase in productivity following technological change, this will be reflected in higher rates of return to investment and thus a higher neutral real interest rate.

⁵ More persistent effects might subsequently follow if it emerged that New Zealanders' appetite for debt resulted in higher household debt-to-income and external debt to GDP ratios than overseas. In the latter case, a New Zealand risk premium might be tacked on to interest rates as a result of greater perceived credit risk from the perspective of international lenders.

3 Simple indicators of the New Zealand NRR

Apart from using period averages of real interest rates, the level of the NRR might be able to be inferred from the behaviour of a range of simple indicators as to whether monetary policy today is adding or subtracting stimulus to/from the economy. The usefulness of this approach of course depends on what else might be going on at the time. Informal allowance can be made for the role of other factors; more formal allowance requires the use of more sophisticated techniques (see next section).

To find potentially useful indicators, it makes sense to look at the things that might help to explain the evolution of the NRR. One of these relates to the gradual increase of the household debt-to-income ratio, as a consequence of financial liberalisation in the 1980s that gave households better access to credit. According to this hypothesis, the NRR in New Zealand is only temporarily higher than the world NRR during a period of transition, as households collectively take advantage of better opportunities to borrow, and the ensuing pressure on productive resources, and thus inflation, causes interest rates to rise. Under this hypothesis, once debt-to-income levels in New Zealand approach their new equilibrium, the rate of household debt accumulation will decline, associated additional pressure on the real economy will slow and the New Zealand NRR will settle toward the world NRR⁶.

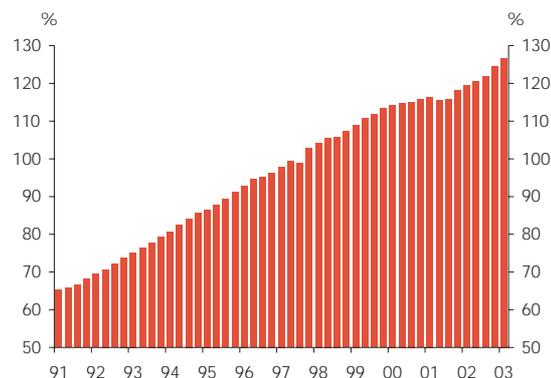
However, there is no sign that debt-to-income ratios have stabilised. Figure 2 shows a continued steady increase in the debt-to-income ratio of households, which does not yet seem to be tapering off. That might partly explain why the New Zealand NRR is noticeably higher than in countries where debt ratios are evolving at a more gentle pace.

Housing market activity

A more direct indicator of both the current level and any change in the NRR might be the behaviour of household

⁶ Some differential might remain due to a risk premium associated with the effect of higher household debt levels on the likelihood of loan default. If New Zealand household debt stabilised at the same levels as household debt anywhere else in the world, this might not be a factor.

Figure 2
Ratio of household debt to disposable income

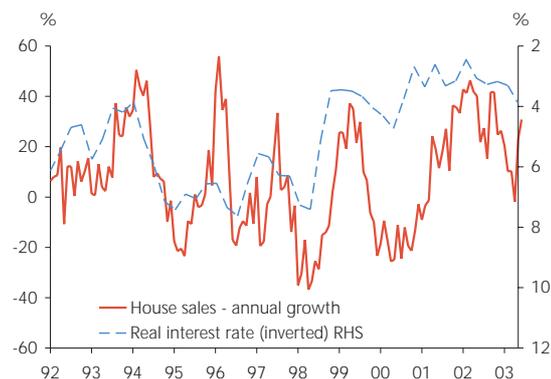


borrowers, as viewed through the window of the relationship between the level of interest rates and housing market activity. The borrowing activity of households relative to longer-term averages gives an indication as to whether borrowers think real interest rates are high or low. By looking at these interest rate levels relative to their longer-term averages, we can detect whether there seems to be a change in the borrowing point.

Figure 3 plots the relationship between annual growth in house sales and a measure of the real interest rate: nominal interest rates deflated by the CPI.

The relationship shown in Figure 3 seems to suggest that lower interest rates are less stimulatory now than they were in the early 1990s. While real interest rates have trended lower, house sales have continued to fluctuate within historical ranges. Of course, house sales will also be affected by other variables, such as population growth.

Figure 3
House sales and real interest rates (CPI deflator)



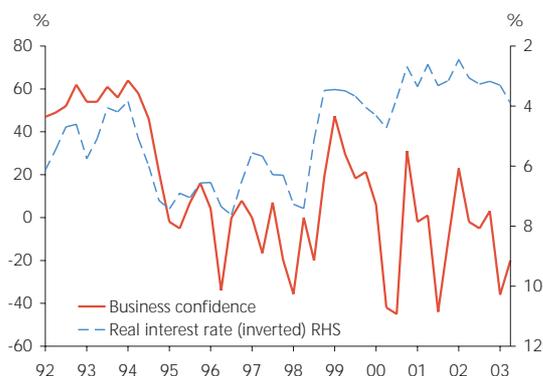
Confidence measures

Trends in business confidence can also provide information on the possible trend in the NRR. Given that low interest rates provide stimulus to business activity via greater incentives to borrow for consumption and investment, one might expect a declining trend in real interest rates to have been reflected in higher business confidence.

Figure 4 plots business confidence against real interest rates⁷. The broad decline in real interest rates seems to have been accompanied by a tendency for business confidence to decline. In Figure 4, this appears as a divergence between the two lines. The same divergence can be observed with regard to "own activity" expectations⁸, as plotted in figure 5.

Given that business confidence is driven by many factors, the link between business confidence and interest rates is weakly indicative at best. In this particular case, post-reform increases in competitiveness in many sectors, associated with deregulation and increased globalisation, have probably decreased average margins and so had a negative effect on business confidence over the period that is separate from the trend decline in real interest rates.

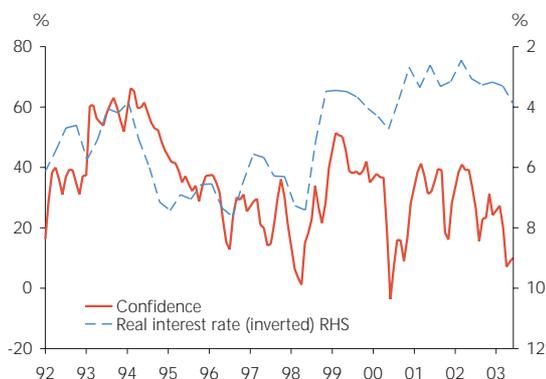
Figure 4
QSB0 business confidence and real interest rates



⁷ Business confidence refers to the Quarterly Survey of Business Opinion (QSB0) survey measure of the percentage of respondents expecting an improvement in general business conditions minus the percentage expecting a deterioration.

⁸ NBBO survey measure, reflecting the percentage expecting an increase in own activity minus the percentage expecting a decrease.

Figure 5
NBBO own activity expectations and real interest rates



A tentative conclusion that might nevertheless be drawn from trends in business confidence in recent years is that lower interest rates do not provide proportionately more stimulus to the economy today than has been the case in the past. This is another way of saying that the NRR may have fallen over the latter half of the 1990s and early 2000s.

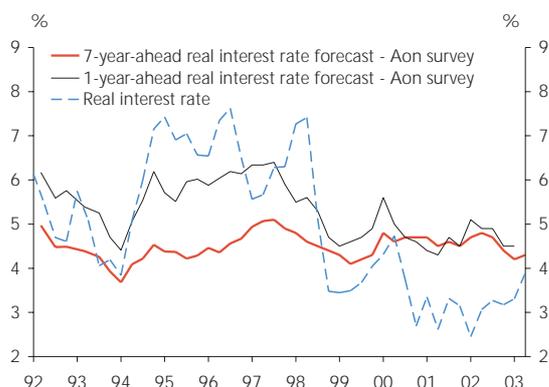
Long-term interest rate forecasts

Another indirect way of gauging trends in the NRR is to assess expectations of longer-term interest rates to see whether they suggest a fall in the NRR over recent years. Surveyed expectations of real interest rates 1 and 7 years ahead, as plotted in figure 6, have been quite stable over recent years. The relative stability in longer-horizon expectations reflects less cyclical volatility over the period 1992-2003 than the bumpier 1-year-ahead real interest rate expectations series. The average level of the 7-year-ahead forecast of 10-year real interest rates has consistently been around 4.5 per cent. This stability is not consistent with expectations of a declining NRR, and stands at odds with the trend fall in the expected 1-year-ahead real rate.

Perceptions of the monetary policy stance

It is possible to directly survey perceptions of how stimulatory monetary conditions are, to correlate this with measures of the real interest rate, and to draw inferences as to the level of the NRR. The RBNZ survey of expectations contains a

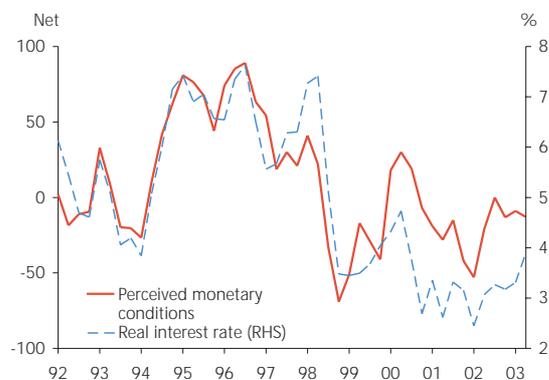
Figure 6
Actual and forecast real interest rates, 1 and 7 years ahead



question about perceived monetary conditions, but responses to this question over time show a correlation with the exchange rate as well as with actual levels of nominal interest rates. Figures 7 and 8 plot the perceived monetary conditions variable⁹ against the real interest rates and the TWI, respectively.

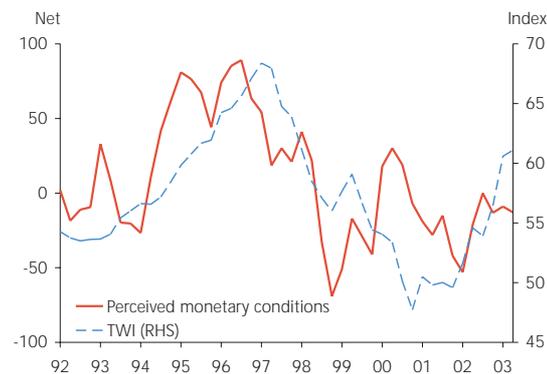
Given the correlation with the exchange rate of perceived monetary conditions, it is difficult to draw inferences about the level and behaviour of the NRR based solely on this indicator. Nevertheless, it is interesting to note that in the face of very low levels of 90-day interest rates, and an exchange rate that has until quite recently been widely perceived as undervalued, monetary policy has still not been

Figure 7
Perceived monetary conditions and real interest rates



⁹ This is defined as the percentage of respondents who believe that monetary conditions are tighter than neutral minus the percentage believing that conditions are easier than neutral.

Figure 8
Perceived monetary conditions and the TWI



perceived as unusually stimulatory. This would also suggest that the neutral real interest rate has declined in recent years.

Neutral real interest rate estimates for other countries

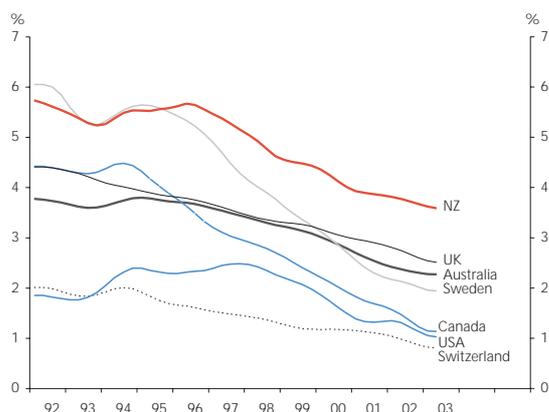
Figure 9 plots estimates of time-varying real interest rates in various countries, including New Zealand, using long-term and short-term interest rates as a guide, and correcting for actual inflation levels. The methodology involves the use of "Kalman filters"¹⁰, and assumes that inflation expectations are stable and the same as actual inflation. On this basis, a simultaneous downward shift in the cyclically adjusted long and short interest rates (i.e. a downward shift in the entire yield curve) is interpreted as evidence of a decline in the NRR, as depicted in figure 9.

This graph can be interpreted as giving us point estimates of neutral real interest rates, as well as some indication of country-specific premia around a world NRR¹¹. Strikingly, the NRRs have declined in most of the comparator countries, except for the United States. In addition, it appears that the New Zealand premium over that of many other countries has declined somewhat since 1992, but remains substantial in all cases.

¹⁰ See Bjorksten and Karagedikli (2003) or Basdevant et al (2003).

¹¹ It should be recognised that the filtered series in figure 9 are subject to wide bands of uncertainty, and that other filtering methods will yield different end point estimates. Nevertheless, for all of its faults, Figure 9 is indicative of the 'New Zealand premium'.

Figure 9
Yield spread based estimates of NRRs



4 Empirically estimating a time-varying NRR

If the NRR fluctuates materially over time, then it makes little sense to take an average of the real interest rate, even if over some sample period which is long enough for the ups and downs of business cycles to cancel each other out. If the true NRR is trending down over time, as the simple indicators examined above seem to suggest is the case for New Zealand, then an estimate based on the average will be biased downwards at the beginning of the sample and upwards at the end. What alternative methods are available to estimate a time-varying NRR for New Zealand?

Several recent pieces of research have addressed this question, all of them examining the period of stable inflation which started in 1992. Because the NRR cannot be observed directly, it must either be inferred from the movements of other variables, or modelled theoretically as a function of other economic relationships, or a combination of both.¹²

One of the simplest methods of estimating the NRR is to calculate a moving average of actual 90-day interest rates.¹³ One benefit of this approach is that as monetary authorities adjust interest rates to counteract inflation deviations from target, the moving average of those rates automatically

¹² Internationally, efforts to model a time-varying neutral real rate and/or the associated real interest rate gap include Laubach and Williams (2003) and Orphanides and Williams (2003) for the US, and Neiss and Nelson (2003) for the UK, and Giammaroli and Valla (2003) for the Euro area.

¹³ A standard way to do this is by using a Hodrick-Prescott filter, as explained in Hodrick and Prescott (1997) and a procedure for which is now contained in most statistical packages.

adjusts itself to reflect any trend that might exist. Thus, as levels of real interest rates have broadly declined over the 1990s, even as inflation itself has remained stable, the moving average of real interest rates displays a declining trend since 1992. In practice, the Reserve Bank continuously adjusts its view on the neutral real interest rate in a way which is consistent with such a moving average (Basdevant and Hargreaves 2003).

The moving average, as described above, is nevertheless backward-looking, and so this method leaves us with a great deal of uncertainty when it comes to guessing what the NRR might be today. Plantier and Scrimgeour (2002) tried to improve upon the moving average approach by taking into account the fact that short term interest rates are largely determined by monetary policy judgements, which in turn should respond in predictable ways both to deviations of inflation from target, and to output from its trend. By using this information, it should be possible to improve the accuracy of estimates. Over history, any persistent adjustments to the 90-day rate which are not explained by deviations of inflation from target and output from trend are assumed to reflect a change in the NRR. The NRR estimates derived in this way also show a declining trend in New Zealand, and closely match the moving average approach over history. But because the approach allows explicitly (if crudely) for the influence of monetary policy, the estimates are probably somewhat more accurate in real time decision-making.

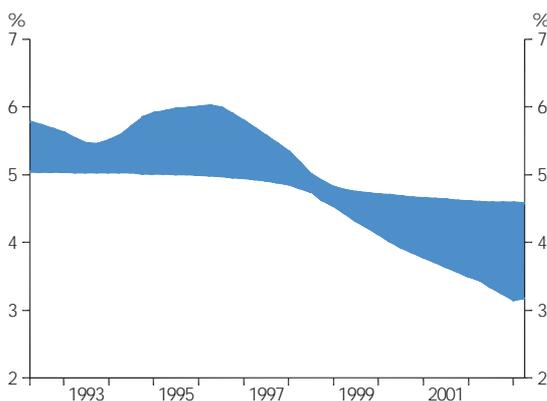
The approach of Plantier and Scrimgeour (2002) suffers from the problem that the most recent value of the estimated NRR depends heavily on the last available observations of inflation, output and the 90-day rate. In real time, the most recent observations are often subject to material revisions as new data emerge. Basdevant *et al* (2003) address this problem by considering movements not just in 90-day rates, but in 10-year rates as well.¹⁴ Since 10-year interest rates provide information about how markets expect 90-day rates to evolve on average in the future, Basdevant *et al* have effectively inserted a forward-looking component into their estimates of the NRR. To check the robustness of such yield curve-based estimates of the NRR, Basdevant *et al* ran a series

¹⁴ This "yield curve spread" approach has been suggested by Christensen (2002).

of counterfactual exercises where real-time data on inflation and output were substituted for *ex post* data. The results were that the yield curve spread-based estimates were not greatly affected by revisions to inflation and output data, and thus can be considered relatively reliable.

Basdevant *et al* estimated the NRR using a total of 14 different models, including (i) a simple yield curve analysis that takes 90-day and 10-year interest rates directly from the yield curve, (ii) acknowledgement of the central bank's role in setting short rates *à la* Plantier and Scrimgeour (2002), (iii) tests of different assumptions with regard to the formation of inflation expectations, and even (iv) a full structural model, all within a Kalman filter framework using a range of alternative filter parameters.¹⁵ Figure 10 plots the envelope of the estimates derived using these 14 models. While every model estimated suggests a decline in the NRR over the time period since the early 1990s, the end points are, unsurprisingly, more uncertain than the middle. The estimates of today's NRR turn out to be fairly evenly spread in a range of about 3.2 to 4.6 per cent, with an average just under 4 per cent.

Figure 10
Envelope of 14 empirical estimates of the NRR for New Zealand



Source: Basdevant *et al* (forthcoming), RBNZ

¹⁵ The Kalman filter is a recursive algorithm which enables us to jointly estimate a model with an “unobserved” component” such as the neutral real interest rate. For a review of the Kalman filter and its applications in macroeconomics, see Basdevant (2003).

5 Why does the NRR seem to be higher in New Zealand than elsewhere?

A remarkable observation from this variety of work is that the estimates of the NRR in New Zealand remain considerably higher than in many other parts of the world. The question of why this is so is understandably a matter of some debate in New Zealand. What is it that is different about New Zealand which obliges New Zealand borrowers to pay more than, say, borrowers in the United States, the UK or Australia?

Without attempting to be at all definitive, the answer may be a combination of the following factors, probably none of which individually is decisive, but all of which might jointly interact, resulting in a material structural New Zealand premium over a ‘world’ interest rate:

- New Zealand is a small economy, with less diversification in its economic activity than is the case in most of the other OECD economies. Consequently, it is likely to have greater volatility in GDP than would larger and more diversified economies. In the period 1992-2003, volatility of the New Zealand output gap has been an estimated 47 per cent higher than in the US, 84 per cent higher than in Australia, 31 per cent higher than in Canada and 2.5 times higher than in the UK. At the same time, trend GDP growth has been lower in New Zealand than overseas.
- New Zealand also has substantial exchange rate volatility, with large and persistent fluctuations against major world currencies, such as the US dollar. Taking a 2-year moving average of currency exchange rates against the US dollar, New Zealand is twice as volatile as Canada, 40 per cent more volatile than the UK, but only 6 per cent more volatile than Australia.
- While well-integrated in foreign currency markets, the liquidity of New Zealand dollar denominated debt is lower than debt denominated in many other currencies. This matters in the event that investors may wish to quickly liquidate a large position, or many investors at once try to sell New Zealand dollar denominated assets in response to bad news. The risk of losses for the sellers

increases if it is harder to find a buyer on the other side of the transaction.

- New Zealand has one of the highest levels of net foreign debt relative to GDP. Most lenders to New Zealand companies and other enterprises are therefore overseas investors, whose choice of investing in New Zealand involves an assessment of investment risks and returns across many alternatives worldwide.

The net foreign asset position features prominently in most stories of the New Zealand differential reflecting a premium imposed by foreign investors. Plantier (2003) has tested whether New Zealand's relatively high foreign indebtedness, as measured by net foreign asset positions as a percentage of GDP, might in fact be a driving factor of the persistent interest rate differential. His main result confirms that OECD countries' net foreign asset positions correlate well with the gap between domestic currency real interest rates and those in the rest of the world.

Plantier's work suggests that not only does the size of a country's net foreign asset position relative to GDP matter, the composition of this position matters as well. In particular, government indebtedness appears to have a larger effect than private indebtedness. In the case of New Zealand, Plantier's results suggest that reductions in the net indebtedness of the New Zealand government since 1994 have lowered real interest rates by almost 1½ percentage points, though this has at least partly been offset by increases in household indebtedness.

There are also other factors that might conceivably explain the higher NRR in New Zealand as compared to elsewhere. For one thing, residual fears of inflation, while probably tapering off after a decade of observed price stability, may still remain more of a factor in New Zealand than elsewhere. This does not seem to be supported by data from various surveys of inflation expectations, which show remarkable stability in New Zealand, but the possibility cannot be completely dismissed.

Likewise, the suggestion has been made that the RBNZ itself has been responsible for the higher rates, under the hypothesis that it is continually running an overly hawkish monetary policy. Following this argument, if the RBNZ were to follow a more relaxed approach to inflation control, then

real interest rates would be more similar to those in Australia, the US and Europe. A clear counterfactual test is not available, so the hypothesis cannot be conclusively rejected. Nevertheless, if monetary policy settings have indeed been above neutral on average, then one might expect inflation to have been in the lower half of, or below, the target range over a good part of the period, when in fact the opposite has been the case.

6 Summary and conclusions

The NRR conceptually defines the boundary between high and low interest rates, where the former drives inflation down, with the potential side effect of slowing the economy, and the latter stimulates the economy, with the potential side effect of higher inflation. The NRR is thus an important operational concept for monetary policy in determining the appropriate policy stance for the cyclical circumstances.

There is evidence to suggest that the NRR in New Zealand has been trending downwards since inflation was stabilised in 1992. In principle, taking a time-varying NRR into account from the start should allow for more efficient monetary policy in the sense of less output volatility (Giammaroli and Valla 2003). Unfortunately, however, the NRR is not directly observable, but rather it must be inferred from the behaviour of inflation, as imperfectly quantified by a range of alternative measures. Given that inflation is affected by many other variables as well, including several unobservable ones, such as the output gap, which for good measure operate at long and variable lags, the estimation of the NRR at any given point in time is subject to considerable uncertainty. Nevertheless, over longer time periods, some trend developments can be separated out from known cyclical and noise factors, and this is helpful to the estimation process.

There are two complementary approaches to determining the NRR. One can start from the idea that economies move through cycles, and so long as inflation is neither trending up nor down, interest rates must also have been cycling around their neutral level. So under conditions of broadly stable inflation over an extended time period, the average or trend interest rate provides a basis for assessment.

At the same time, one can try to identify some underlying factors which determine cross-country differences between trend interest rates. This allows us to estimate country-specific premia around a world NRR which is prevailing in international financial markets, and which is driven by factors common to many market economies. This second approach may also suggest some policy measures that can affect the premium of some individual country.

Recent estimation work which makes use of these approaches has placed the current level of the New Zealand NRR somewhere around or just below 4 per cent, plus or minus about three-quarters of a percentage point.

In the end, the observed decline in the NRR in New Zealand can be partly explained by a general worldwide decline in the NRR, which has lowered real rates of return on competing investments overseas. Another part should in principle relate to New Zealand-specific developments, and here it becomes especially interesting for policy-makers to determine whether the observed decline relates to policy changes that we have some control over. Identifying these individual components of the decline in the NRR is an order of magnitude more difficult than just estimating the decline in the first place, however.

The NRR estimate for New Zealand has been and remains high in comparison with what we observe overseas. The article offers some possible reasons for this. One of the interesting questions for further analysis in the future is whether those factors will continue to result in a higher NRR in New Zealand than elsewhere, or whether the New Zealand NRR may slowly converge closer to the world rate.

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Risk management in the Reserve Bank: a 2003 perspective

Steve Anderson, Risk Assessment and Assurance

The December 1999 issue of the *Bulletin* contained an article describing the then newly formed Risk Assessment and Assurance Department in the Reserve Bank and explaining how the Bank managed its risks. This article provides a 2003 perspective on these issues.

1 Opening comment

No discussion of risk management appears complete without a seemingly obligatory definition of risk management. In the case of the Reserve Bank, with its view of the importance of an integrated approach to this subject, the definition is best considered in two parts: “risk” and “management”.

Risk is defined in the traditional sense in that it refers to both the probability of an event and the consequence or impact of an event should it occur. The implicit assumption is that the consequence or impact will be negative relative to the objective of the activity being referred to, but this need not be so. However, it is on the basis of the implicit assumption of negative consequence that we operate.

The term ‘management’ needs no definition here other than to say that it is used in its usual context, meaning the web of authorities and processes used to guide an activity toward the objective being sought.

So, in respect of the Bank, risk management is about better identification, monitoring and management of events that could frustrate intended outcomes. It should make success more certain by improving the management of the downside of activities undertaken by the Bank.

2 General philosophy on risk management

Consistent with the general philosophy of it being an integral part of the general management task, risk management is not seen as a separate task or activity within the Bank. Risk management is a process fully integrated with the overall management task. This task is made up of:

- An open policy development and implementation process with active participation by a broad range of personnel with a variety of responsibilities and perspectives. This occurs primarily through participation in the various internal committees described in the Governance section of the 2002/03 *Annual Report*. (See box 1 for a summary.)
- Regular reporting of progress toward planned outputs and outcomes across functional areas within the Bank, submitted to the Governor and Board. This is summarised each month in a “Balanced Scorecard” report to the Governor and Board, identifying performance against objectives across the Bank’s functions. Performance reporting culminates in the Bank’s *Annual Report*, submitted each year to the Minister of Finance, Parliament and the wider public.
- Regular management affirmations that policies and procedures set up to help ensure that expected outcomes are achieved are being followed. These are in the nature of positive assurances given by the head of each department to the Governor each quarter. In addition, the Governor and Deputy Governor are required to attest annually, in the Bank’s *Annual Report*, to the veracity of the Bank’s financial statements and internal control systems.
- Reporting of incidents or issues that have or could have been a significant or material problem. This process - known as Proactive Problem Management (PPM) - includes “near misses” and is designed to gain the most learning out of any incident, with a view to reducing a recurrence in the future. The PPM process is Bank-wide and depends for its success on being used as a learning device, and not as a source of disciplinary action.

Box 1

Governance structure

The Bank's governance structure comprises three main elements: the Board of directors; the Governor; and the internal management structure.

Board of Directors

The Reserve Bank has a Board of Directors. The Board of Directors must comprise not less than five and not more than seven non-executive members appointed by the Minister of Finance, and the Governor. As a result of a recent amendment to the Reserve Bank of New Zealand Act, the Board is chaired by a non-executive director, appointed by the non-executive members of the Board.

The role of the Board of Directors is different from that of the Board of a listed company. The Reserve Bank's Board has no involvement in directing Reserve Bank policy, monetary or otherwise, or in directing the use of the Bank's resources. These responsibilities are vested solely in the office of Governor. Rather, the Board's primary function is to monitor the performance of the Governor and the Bank, on behalf of the Minister of Finance. The Board does this by holding monthly meetings at which it receives extensive briefings on the Bank's activities, decisions and policies. At these meetings, the Board also provides advice to the Governor, typically on the state of the New Zealand economy and internal governance issues.

The Board also has an Audit Committee. All three members are non-executive directors. The Board Audit Committee monitors the internal audit function, receives reports from the Bank's external auditors and reviews the Bank's annual financial statements.

The Board also has responsibilities in the appointment of the Governor and Deputy Governor. The Governor is appointed (or re-appointed) by the Minister of Finance only on the Board's recommendation. The Deputy Governor is appointed by the Board on the recommendation of the Governor.

The Governor

The Reserve Bank of New Zealand Act vests authority for managing the Bank in the Governor and makes the Governor accountable for the Bank's actions. In monetary policy, and in most other matters, decision-making authority resides with the Governor alone. The Governor is appointed for a five year term. The Act sets specific criteria under which the Minister of Finance can dismiss the Governor.

Management structure

The Reserve Bank's senior management team is made up of the Governor, a Deputy Governor (designated as the Deputy Chief Executive) and the heads of the Bank's various departments. The departments are the main functional units in the Bank, with each department being responsible for administering one or more of the Bank's functions.

The Governor receives advice from a number of internal committees within the Reserve Bank. These are:

- the Governor's Committee, which meets weekly to consider the management and day-to-day operation of the Bank;
- the Monetary Policy Committee, which meets weekly to advise the Governor on economic and financial developments;
- the Official Cash Rate Advisory Group, which advises the Governor on monetary policy decisions, typically eight times a year;
- the Financial System Oversight Committee, which meets fortnightly to consider policy and other issues relating to the financial system;
- the Risk Management Committee, which meets monthly to consider risk management frameworks for the Bank's activities;
- the Reserves Oversight Committee, which meets quarterly to consider the Bank's foreign reserves activity; and
- the Communications Committee, which meets weekly to consider communications issues and the Bank's reputational interests.

- Programmed internal audit activity to monitor the observance of the whole management process. The internal audit activity is in turn monitored by the Audit Committee of the Board, which also receives reports from the external auditors of the Bank and reviews the Bank's annual financial statements.

3 Activities and risks of the Bank

The Bank's risks arise from its activities. The starting point in assessing risks is therefore to identify the Bank's main activities and to understand how these can generate risks. The activities of the Bank are focussed around:

- Monetary policy. This activity involves economic forecasting, decisions on Official Cash Rate (OCR) settings, and other elements of monetary policy implementation, including domestic market activity.
- Financial system stability. This involves bank registration and supervision, acting as lender of last resort to the financial system, responding to bank failure and distress situations, providing advice to the government on financial sector issues and payments system oversight.
- The issuance of currency, involving both supply and, to a limited extent, distribution arrangements.
- Foreign reserves management and intervention capacity. This includes asset and liability management and contains both active and passive management elements. This activity is designed to enable the Bank to intervene in the foreign exchange market where the market has become dysfunctional or in situations of disorderly market conditions.
- The provision of some elements of financial system infrastructure, particularly a real time gross settlement system, a delivery-versus-payment securities settlement system for debt and equity, and a debt registry service (which is expected to be discontinued from December 2004).
- Internal support arrangements necessary for the above; e.g. accounting, financial markets settlements, knowledge management and human resources.

The Bank's functions, and the activities undertaken within them, inevitably entail risks. The main risks are highlighted in box 2.

The Bank has documented a list of the risks it faces, but the list does not provide the primary basis on which risks are managed. Rather, its purpose is to provide a common language to assist discussion and understanding of the management task. And while each type of risk has a fairly specific set of management options associated with it, the extent to which those options are applied depends primarily on the characteristics of the activity.

In summary, the basis of the risk management approach adopted by the Bank follows a hierarchy, activity by activity, based on the following:

- What are the characteristics of this activity?
- What risks does it expose the Bank to?
- What factors give rise to the risks?
- What do we need to do to adequately identify, measure, monitor and manage the risks of this activity?

The Bank addresses each of these matters across all its functions and activities, both within the departments or units with responsibility for particular functions, and within the inter-departmental committees in the Bank that oversee each functional area. Risk issues are assessed in any new policy proposals or activities, and are monitored as part of the ongoing functional reports provided to senior management and the Board.

For example, in the area of monetary policy, the risk implications of policy options are thoroughly assessed in the process of pulling together each *Monetary Policy Statement* and interim OCR decision. Similarly, the risks associated with the policy formulation and implementation process, such as the construction and use of the Bank's forecasting model, are reviewed periodically. In the area of financial system oversight, the risks associated with particular policies are carefully reviewed in the policy formulation process and in consultations with external parties.

The Bank's Risk Assessment and Assurance provides an additional layer of scrutiny, by conducting regular audits across the Bank's functions. In addition, the Bank's external

Box 2 – Nature of the Bank's risks

The Reserve Bank faces a wide range of risks, some general and others unique to central banks. Of these, the most fundamental risk is making errors in relation to monetary policy or financial sector policy, thereby causing damage to the economy or financial system, and to the Bank's reputation and credibility. Policy errors can arise in a number of ways, including through lack of information or incorrect information, uncertainty in our understanding of the way the economy and financial system work, variable and uncertain lags in the impact of policy decisions, unanticipated structural changes in the economy and financial system, and misjudgements in the policy formulation and implementation process. Some of these risks are controllable; others less so.

Risks can also arise in the implementation of our crisis response powers, such as in responding to financial system distress or intervening in the foreign exchange market to counter disorderly market conditions. Again, these risks arise from a range of factors, including the inherent uncertainty that abounds in any financial crisis, the lack of timely and reliable information, and the possibility that

the actions we take (or decide not to take) may not necessarily lead to the intended outcomes because of the way other parties react or other factors beyond our control. Again, some of these risks are manageable, but others lie largely outside of the Bank's sphere of influence.

Other more specific risks include:

- credit and interest rate risks associated with our day-to-day liquidity management in domestic financial markets;
- risks associated with holding foreign currency reserves, including credit, interest rate and exchange rate risks;
- risks associated with processing and storing currency, including risks of theft and robbery;
- operational risks in the operation of the real time gross settlement system and security settlement service; and
- risks associated with being a small organisation, such as the loss of key staff and associated corporate memory.

audit arrangements and the occasional use of other third party reviews provide further mechanisms for the management of risks.

4 Managing risks on new initiatives

The overview above outlines the processes for managing risks on a "business as usual" basis. For new initiatives, the Bank has a Project Management Methodology (PMM). The PMM process is designed to be used to assist in the management of new initiatives of all types, including policy development initiatives, as well as initiatives of a more technical nature. The level of specificity in the process is tailored to suit the characteristics of the initiative and its primary objective is to manage the transition to a new "business as usual" status, including any new embedded processes.

We, like many others, have found the separation of activities into business as usual and new initiatives necessary because both provide challenges, but the challenges are subtly different. For business as usual, the challenge typically is one of familiarity with the routine, which can lead to complacency and a lack of appreciation of the purposes of processes designed to manage low frequency events. For new initiatives, the challenge is inexperience and ignorance of low frequency events peculiar to the new situation and for which processes need to be considered.

The project management methodology includes a three-level decision structure based on expected cost, a monitoring regime and a project closure review. The key overview mechanism is the project steering committee, the members of which are typically a mix of management of the area with which the project is associated, as well as other members included because of their knowledge or past experience with

the subject. The aim of the steering committee is to improve the quality of the project through inclusion of a higher level of relevant experience than might currently be available in the project team. Project steering committees are typically multi-disciplinary and are not constrained by organisational boundaries. In that sense they represent another manifestation of the general management approach adopted by the Bank of making extensive use of cross-departmental committees to help ensure all relevant knowledge and experience in the Bank is available.

5 Other processes for managing risks

The processes used to manage the Bank's risks mainly involve internal management structures, although the internal views on risk issues are informed by much more than our own collective experience. To further inform our views, and as a means of testing our assumptions and processes, the Bank employs various techniques to subject our internal processes to external scrutiny.

For example, in the case of monetary policy, we have established a practice of inviting academic economists and other central bankers to participate in the Bank's monetary policy decision-making process as a means of getting their views on what we do and how they think the process could be improved. In addition, two external advisers to the Governor fully participate in the monetary policy decision process each quarter, attending all meetings in the key week of the quarter and making OCR recommendations to the Governor.

The Bank also seeks to manage monetary policy-related risks in other ways. For example:

- we review and revise the Bank's economic model to ensure that it remains a reliable mechanism for forecasting the New Zealand economy;
- we periodically assess forecasting inaccuracies and draw comparisons with other forecasters, with a view to improving our forecasting ability;

- we develop and have regard to alternative economic models, so as to reduce reliance on the Bank's main model;
- we have regard to a broad range of data, rather than rely on narrow data series;
- we hold regular dialogue with businesses and industry sector representatives, among others, in order to maintain a diversity of information on developments in the New Zealand economy;
- we subject much of our research and analysis to peer review, both internal and external, and generally maintain an environment conducive to contestable policy advice; and
- we place emphasis on recruiting and maintaining high quality staff and infusing the Bank's staff with secondees from other relevant organisations or visiting academics where possible.

In the area of financial system oversight, we use a number of methods to manage the Bank's risks. As with monetary policy, we also seek to ensure that policy proposals are subject to careful internal and external review processes. The obligation to consult interested parties, such as registered banks, on new banking supervision proposals also serves to reduce the risks of policy errors. We also monitor and assess the effectiveness of the policy regime by reference to relevant international standards and codes, and we compare our framework with those of other central banks and supervisory authorities. We also periodically assess the effectiveness of the Bank's banking supervision framework, as we did recently by surveying the boards of directors and auditors of banks to assess the effectiveness of the corporate governance and audit aspects of the supervisory arrangements.

The imminent Financial Sector Assessment Programme (FSAP) to be conducted by the IMF later this year will also be an important device to identify and better manage risks associated with financial sector policy and banking supervision, by getting external views on our approach to achieving financial system stability and how we might be able to improve the quality of the outcome in this area.

Senior management also periodically engage external parties to review aspects of the Bank's risk management systems.

For example, in order to gain further assurance about our general risk management processes, we commissioned a Bank-wide risk review in late 2002. This was conducted by a person familiar with the various roles undertaken by a central bank who also had non-executive director experience. The perspective taken was that of an informed non-executive director of the Bank. The reviewer made a considerable number of comments and recommendations, but concluded that the Bank set a high standard in its risk management and that risk management was "...about trying to identify ways of more easily and certainly achieving objectives which so far as I can see are already being delivered in ample measure." The report has been considered by the Board and all recommendations have been considered and actioned where appropriate.

In the more technology-focussed areas of the Bank, senior management has commissioned quality assurance and implementation reviews by outside consulting firms for some new initiatives. In addition to assisting in maintaining discipline in project management processes, the Bank has found this independent third-party review an important contributor to the acceptance of the technology projects. This has been especially important in areas where the Bank has been providing financial market infrastructure (e.g. payment and settlement systems) and has been out-sourcing significant elements of the service.

The above processes are in addition to the more routine aspects of seeking Board member advice on annual plans, the existence of a Board Audit Committee and an external audit conducted by the Controller and Auditor General, but contracted out to a private sector accounting firm (currently PricewaterhouseCoopers).

6 Conclusion

Risk management in the Bank is undertaken activity by activity because direct line managers are the most knowledgeable about their own activities. They are responsible for the success or failure of their own activities, and ownership of all outcomes – good or bad – is likely to produce the most balanced management approach. A balanced management approach requires a good understanding of the factors that will ensure success as well as a good understanding of the factors that could frustrate that success. Achieving a good understanding means using a wide range of processes and devices to seek informed views, But these processes and devices do not alter the responsibility for the final outcome. That rests directly with the manager concerned. It is our view that quality management must include quality risk management.

International efforts to combat the financing of terrorism

Ken Matthews, Financial Stability Department

Following the terrorist attacks in September 2001, there have been a number of developments in measures to combat the financing of terrorism. This article discusses the characteristics of terrorist financing and summarises the international initiatives to counter the financing of terrorist activities, including measures taken by the United Nations, Financial Action Task Force, regional bodies and national authorities, including New Zealand.

1 Introduction and background

International initiatives that are aimed at combating the financing of terrorism (CFT initiatives) were given increased impetus by the terrorist attacks against targets in the United States on September 11, 2001 (9/11 events). Investigations after the 9/11 events indicated that the financing of the attacks was an important part of the overall terrorist planning process. Without an adequate financing structure, terrorist attacks are likely to be more difficult to mount. The authorities in the United States came to the view that CFT initiatives were far more important, and likely to be far more effective, than had previously been thought. CFT initiatives became accepted as an important part of counter-terrorism. This change of attitude was translated into action on a national and international basis.

Many countries have recently enacted laws aimed at combating the financing of terrorism, such as in the United States, with the US Patriot Act 2001¹, and in New Zealand, with the Terrorism Suppression Act 2002. Although some of these laws have extraterritorial effect, international cooperation is necessary if CFT initiatives are to work effectively across borders.

International organisations, such as the OECD-affiliated Financial Action Task Force (FATF), have contributed in this area. They have developed standards that can be applied internationally so that CFT initiatives can be more effective. The United Nations also has an important role to play, with the UN Security Council having implemented resolutions that contain measures to combat the financing of terrorism.

2 Characteristics of terrorist financing

There are numerous ways by which terrorism is financed. Criminal activities, such as extortion, kidnapping, drug trafficking and fraud are often the source of terrorist financing in Europe, East Asia and Latin America. In the Middle East, funds are sourced more from legitimate means, such as commercial enterprise, charitable donations and state sponsorship.² Paradoxically, funds used for illegitimate purposes can be financed from legitimate sources.

Terrorist operations require that money be raised, collected and distributed. An essential feature of terrorist financing is that funds must be moved from their source to where they are required. This is often where terrorist financing can be combated most effectively. Most CFT initiatives are designed to detect the movement of funds. These movements of funds are often done through informal financial networks, business structures, and underground banking systems.

Charities have been used to collect funds intended to finance terrorism. Donations to charities for terrorist purposes can be mixed with other funds and subsequently diverted to terrorist groups. Apparently legitimate but complex, company and trust structures can be used for the hiding and transfer of funds. Subsidiaries are established in different countries and funds transferred between companies. Businesses that deal mainly in cash also tend to be used to launder funds intended to finance terrorism.

¹ Pub L 107-56 115 Stat 272 (26 October 2001).

² K Alexander *United States Financial Sanctions and International Terrorism, Part 2* (Butterworth's Journal of International Banking and Financial Law, May 2002) page 213.

The international transfer of funds is often achieved through underground banking systems that are not subject to effective regulatory oversight. The best example of this is the Hawala system. This system operates on trust and informal relationships which involve no documentation. It works by informal assurances that funds made available in one country will be settled by a reverse transaction in another country. On this basis, funds do not physically cross borders, and so detection is difficult. The Hawala system has been widely used in the Middle East and East Asia for centuries. To date, countries have not succeeded in developing adequate regulatory controls over this type of financing, but initiatives are underway to understand better the risks associated with Hawala-type structures and to devise mechanisms for reducing the risk that these structures may be used for money laundering or terrorist financing purposes.³

3 United Nations initiatives

The United Nations has developed a number of initiatives aimed at combating the financing of terrorism, although there are two principal initiatives.

The International Convention for the Suppression of the Financing of Terrorism of 1999⁴ (the Convention), predated the 9/11 events, while the UN Security Council adopted Resolution 1373 (the Resolution) on 28 September 2001. There have also been some other Security Council resolutions dealing with CFT issues, but Resolution 1373 is the single most important resolution. Resolution 1373, drafted under Chapter VII of the United Nations Charter, was immediately applicable to all member states, as required by Articles 25 and 103 of the Charter.

The Convention does not automatically apply to all UN members, but it received the minimum number of ratifications (22) necessary for it to come into effect⁵ on 10 March 2002. As at 12 August 2003, 132 countries have

signed the Convention, and it has been ratified by 91 countries.

International Convention for the Suppression of the Financing of Terrorism 1999

This Convention is the only internationally significant anti-terrorist initiative focussing specifically on combating the financing of terrorism to pre-date the 9/11 events. The offence created by the Convention is that of providing or collecting funds that are to be used to carry out terrorism. The definition of terrorism in Article 2 of the Convention has two parts:

- An act which constitutes an offence, as defined in one of a number of pre-existing terrorism conventions, including aircraft hijacking, the taking of hostages, and crimes against diplomats.
- Any other act intended to cause death or serious bodily injury to a civilian, or to any other person not taking an active part in the hostilities in a situation of armed conflict, when the purpose of such act, by its nature or context, is to intimidate a population, or to compel a government or an international organisation to do or to abstain from doing any act.

UNSC Resolution 1373

This Resolution explicitly derives its authority under Chapter VII of the United Nations Charter. Chapter VII deals with "action with respect to threats to peace, breaches of the peace, and acts of aggression". The Resolution places a formal obligation on all member states to implement its provisions. It contains no definition of terrorism, but calls on states (inter alia) to:

- prevent and suppress the financing of terrorism;
- criminalise the collection of funds for terrorism;
- freeze funds of terrorists and those who support terrorists.

The Resolution also established a Committee of the Security Council to monitor compliance with the Resolution (the United Nations Counter-Terrorism Committee). As well as monitoring compliance, the Committee has a role in

³ Alexander above, page 215.

⁴ GA Res 54/109 4th Session (9 December 1999).

⁵ FATF Secretariat *Guidance notes for the special recommendations on terrorist financing and the self-assessment questionnaire* 27 March 2002.

encouraging implementation. In Article 8 of the Resolution, the Security Council “expresses its determination to take all necessary steps in order to ensure the full implementation of this resolution, in accordance with its responsibilities under the Charter.”

4 FATF 8 Special Recommendations

The FATF is an inter-governmental body of 31 member states affiliated to the OECD. It was formed in 1989 at a meeting of the Group of Seven nations in Paris because of concerns about the financial power of drug trafficking syndicates. Other states were subsequently invited to join. Its initial purpose was the development and promotion of policies to combat money laundering, which was later extended to include the financing of terrorism. The initial mandate of the FATF was:

“... to assess the results of co-operation already undertaken in order to prevent the utilisation of the banking system for the purposes of money laundering, and to consider additional preventative efforts in this field, including the adaptation of the legal and regulatory systems so as to enhance multilateral judicial assistance.”⁶

It has developed a set of standards, known as the FATF 40 Recommendations, which are widely accepted as the leading international anti-money laundering standards. There is international pressure on all states to comply with these standards, so the effective reach of FATF goes beyond the OECD and FATF members.

In October 2001, the FATF expanded its role beyond money laundering to include the combating of terrorist financing. It published an additional set of recommendations on the financing of terrorism, known as the 8 Special Recommendations. A statement issued by the FATF President in October 2001 said “Today the FATF has issued new international standards to combat terrorist financing. Implementation of these Special Recommendations will deny

terrorists and their supporters access to the international financial system.”⁷

The 8 Special Recommendations require members to do the following:

- Take immediate steps to ratify and implement the relevant United Nations instruments.
- Criminalise the financing of terrorism, terrorist acts and terrorist organisations.
- Freeze and confiscate terrorist assets.
- Report suspicious transactions linked to terrorism.
- Provide assistance to other countries’ authorities for terrorist financing investigations.
- Impose anti-money laundering requirements on alternative remittance systems.
- Strengthen customer identification in wire transfers.
- Ensure that entities, particularly non-profit organisations, cannot be misused to finance terrorism.

5 FATF compliance monitoring

Enforcement of the FATF’s 40 Recommendations and 8 Special Recommendations is based on both moral pressure and the threat of economic sanctions. Many of the FATF member countries have undertaken self-assessments of their degree of compliance with the FATF Recommendations, and have been urged to move towards full compliance. “All countries around the world will be invited to participate on the same terms as FATF members.”⁸

The International Monetary Fund (IMF) has recently assumed the principal role of monitoring countries’ compliance with the FATF Recommendations. The IMF has adopted the FATF recommendations as part of the standards it uses when conducting its Financial Sector Assessment Programs (FSAP).⁹

⁶ W C Gilmore *Dirty money: The evolution of money laundering countermeasures* (Council of Europe Publishing 1999) p79.

⁷ Financial Action Task Force *FATF cracks down on terrorist financing*. Press statement of 31 October 2001.

⁸ Financial Action Task Force above.

⁹ G Mortlock and I Woolford *Reserve Bank of New Zealand Bulletin* Financial sector assessment programme, March 2003.

The FSAP process and the related IMF offshore financial centre assessment process are becoming the most frequently used vehicles for assessing the compliance of both FATF members and non-members with the FATF Recommendations. (The offshore financial centre assessments review the status of financial regulation and supervision in the offshore jurisdictions, as well as their arrangements for anti-money laundering and combating the financing of terrorism).¹⁰

The IMF intends to apply the FSAP process to all IMF member countries in due course, although participation is voluntary at present.

6 Egmont Group

The FATF has facilitated the development of an international network of Financial Intelligence Units (FIU), called the Egmont Group.¹¹ The Egmont Group is an informal international grouping, and has “ become a genuine international forum and, though having no official status, has become an essential element in the international fight against money laundering.”¹²

Some countries’ FIUs are part of the police force or the financial supervisory authority, and some are separate agencies. The number of national FIUs being created and joining the Egmont group continues to grow. The Egmont Group is emerging as a genuinely global forum for anti-money laundering and CFT cooperation.¹³

The objective of the Egmont Group is to combat money laundering, including terrorist financing, through the exchange of information and sharing of expertise.¹⁴ The Egmont Group works towards reviewing and improving national CFT legislation, seeking to ensure that terrorist financing is a predicate offence to money laundering and is included as a suspicious transaction that must be reported

¹⁰ Further information on the OFC programme is available from the IMF website at www.imf.org/external/np/ofca/ofca.asp.

¹¹ The name comes from the place it first met – Egmont-Arenberg Palace in Belgium.

¹² Gilmore above, page 72.

¹³ Gilmore above, page 73.

¹⁴ *Statement of Purpose of the Egmont Group of Financial Intelligence Units* 13 June 2001.

to the appropriate FIU, facilitating information requests from other FIUs, and pooling resources on strategic initiatives.¹⁵

7 United States Initiatives

The United States’ reaction to the 9/11 events included two principal CFT initiatives, both of which have significant implications outside of the United States:

- Executive Order 13224 of 24 September 2001, entitled Blocking Property and Prohibiting Transactions with Persons who Commit, Threaten to Commit or Support Terrorism (the Order); and
- The Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act 2001 (the Patriot Act).

Executive Order 13224

Executive Orders are legally binding regulations made by the President of the United States under powers granted to the President by the US Constitution and under specific US legislation. Executive Order 13224 declares a state of national emergency because of the threat of terrorism, and contains measures for dealing with that threat.¹⁶

The definition of terrorism used in the Order is as follows:

The term “ terrorism” means an activity that —

- (i) involves a violent act or an act dangerous to human life, property, or infrastructure; and
- (ii) appears to be intended —
 - (a) to intimidate or coerce a civilian population;
 - (b) to influence the policy of a government by intimidation or coercion; or
 - (c) to affect the conduct of a government by mass destruction, assassination, kidnapping, or hostage-taking.

¹⁵ Alexander above, page 221.

¹⁶ US Dept of the Treasury *Terrorism: What you need to know about U S sanctions* (6/6/2003) – see <http://www.treasury.gov/offices/enforcement/ofac/sanctions/terrorism.html>

The Order names a large list of individuals and organisations as designated terrorists, and requires all persons subject to United States jurisdiction to freeze and block the movement of any assets held on behalf of a designated terrorist. The Order has extraterritorial effect. It prohibits all foreign third parties from assisting, providing material support, or associating with designated terrorists. It imposes financial sanctions against all foreign persons that support or otherwise associate with designated terrorists.

Agencies of the United States government are charged with doing what they can to ensure that the Executive Order is effectively implemented beyond the territories of the United States by working with foreign governments and by taking enforcement action in the United States against the interests of foreign third parties.

Patriot Act

The significance of the CFT initiatives contained in the Patriot Act is that they have an extraterritorial impact. The Patriot Act authorises the imposition of special measures against foreign jurisdictions and foreign financial institutions that are considered to pose a money laundering risk. These measures include:

- additional record keeping and reporting of financial transactions;
- identification of foreign owners of accounts at US financial institutions;
- requiring foreign banks to identify their customers who transfer funds through an account at a US financial institution;
- requiring foreign banks to identify the customers who use correspondent accounts opened by foreign banks at US banks.¹⁷

The overall effect of these measures is to require foreign banks doing business in the United States (and US banks with branches in other countries) to collect and disclose customer information to the US authorities. If businesses outside the United States do not have effective systems and

procedures in place to investigate money transfers and customers, US institutions are prohibited by the Act from doing business with them.

The Patriot Act also requires US authorities to encourage foreign governments to require the disclosure of information by their financial institutions to US authorities, and to encourage foreign governments to adopt more effective financial regulation and supervision aimed at anti-money laundering.

8 European initiatives

At its extraordinary meeting on 21 September 2001, the European Council declared that terrorism is a real challenge to the world and to Europe and that the fight against terrorism will be a priority objective of the European Union (EU). The Council also reiterated the EU's determination to attack the sources which fund terrorism, in close cooperation with the United States.¹⁸

Following the establishment of this common position, the EU adopted a regulation on 27 December 2001¹⁹ entitled "Specific restrictive measures directed against certain persons and entities with a view to combating terrorism." This regulation contains a list of designated terrorist entities. It requires EU member states to act within their competence to adopt financial sanctions applicable within the EU that will ensure that funds, financial assets and other economic resources and services will not be made available to designated terrorists. It also places disclosure obligations on financial institutions holding the funds of designated persons.

The regulation expressly requires EU states to take legal measures to restrict third parties from providing direct or indirect support to terrorists. Member states are free to determine the actual scope of the civil or criminal penalties imposed when the provisions of the regulation are infringed.²⁰

¹⁸ Official Journal of the European Communities *Council Common Position of 27 December 2001 on combating terrorism* (2002/930/CPSF)

¹⁹ Regulation (EC) 2580/2001.

²⁰ K Alexander *United States Financial Sanctions and International Terrorism, Part 2* Butterworth's Journal of International Banking and Financial Law, May 2002; page 221.

¹⁷ K Alexander *United States Financial Sanctions and International Terrorism, Part 1* Butterworth's Journal of International Banking and Financial Law, February 2002; page 83.

9 Regional bodies

A number of international bodies that have a regional focus, and that are concerned with economic development and the financial sector, take an interest in anti-money laundering and CFT matters. Such bodies exist in all regions of the world, including in the Asia-Pacific region. Examples of such bodies in the Asia-Pacific region are:

- Asia-Pacific Group on Money Laundering (APG);
- Asia-Pacific Economic Cooperation (APEC);
- Asian Development Bank (ADB);
- Pacific Islands Forum (PIF).

The APG was established in 1997, and an initial term of reference was adopted. Its establishment was as a result of the awareness-raising efforts of FATF. The APG is an autonomous body that used the FATF 40 Recommendations as its primary guideline for the implementation of anti-money laundering policies in the Asia-Pacific region. The APG uses similar mechanisms to those used by the FATF to monitor and facilitate progress in its member countries. There are currently 26 member states, including New Zealand.

In 2002, the APG added references to CFT to its terms of reference, and adopted the FATF 8 Special Recommendations as its CFT standards. The purpose of the APG includes the following:²¹

“The APG provides a focus for co-operative anti-money laundering and anti-terrorist financing efforts in the region. The APG facilitates the adoption and implementation by member jurisdictions of internationally accepted anti-money laundering and anti-terrorist financing measures.”

APEC was established in 1989 in response to a recognition of the growing interdependence among Asia-Pacific economies. Its goal is to promote freer and more open trade and investment, and to foster greater financial stability in the region. It currently has 21 member economies, including New Zealand.

A statement issued by APEC says that:²²

“We will jointly work to deny terrorists access to the world's financial system and use the money trail to locate and apprehend terrorists...through measures to:

- fully implement UN and other international instruments...
- promote better monitoring of alternative remittance systems and non-profit organisations...
- enhance law enforcement and regulatory capabilities.”

In this context, the Finance Ministers' process within APEC has undertaken work on anti-money laundering and CFT issues, including encouraging member economies to self-assess their compliance with the FATF 40 plus 8 recommendations and urging all member economies to implement the standards and meet other international requirements so as to promote best practice anti-money laundering and CFT regulation in the region. APEC has also recently conducted an assessment of alternative remittance systems within member economies, with a view to identifying the risks of money laundering and terrorist financing within these systems and the mechanisms to reduce these risks. It is likely that APEC will develop a regional training programme in the near future to promote more effective anti-money laundering and CFT capacity-building in the region to further enhance the fight against terrorism.

The ADB is a multilateral development finance institution dedicated to reducing poverty in Asia and the Pacific. It was established in 1966 and currently has 61 member states. In 2003, the ADB adopted a policy in relation to anti-money laundering and CFT issues. This policy includes the ADB adopting the anti-money laundering and CFT standards of the FATF and the UN, and strengthening collaboration with the APG.²³

The PIF was formed in 1971 to represent the interests of Pacific Island countries. It currently has 18 member states. One of its current projects is to develop model legislation

²¹ Asia-Pacific Group on Money Laundering *Terms of Reference* June 2002.

²² Asia-Pacific Economic Cooperation *APEC leaders' statement on fighting terrorism* 26/10/03.

²³ Asian Development Bank *Enhancing the Asian Development Bank's role in combating money laundering and the financing of terrorism* 1/4/03.

that deals with measures to combat terrorism and its financing, and in particular, to implement Resolution 1373, the international conventions and protocols on terrorism, and the UN Convention against Transnational Organised Crime (which contains money laundering provisions) and its two protocols. This model legislation will assist Pacific Island countries to prepare their individual responses to international obligations.²⁴

10 New Zealand initiatives

New Zealand takes its international CFT obligations seriously. It has enacted CFT laws and is a participant in various international CFT initiatives.

The most significant legislation that covers CFT issues is the Terrorism Suppression Act 2002. A terrorist act is defined in this Act as follows:²⁵

“(1) An act is a terrorist act for the purposes of this Act if—

- (a) the act falls within subsection (2); or
 - (b) the act is an act against a specified terrorism convention (as defined in section 4(1)); or
 - (c) the act is a terrorist act in armed conflict (as defined in section 4(1)).
- (2) An act is a terrorist act for the purposes of this Act if...it is intended to cause, in any 1 or more countries, 1 or more of the outcomes specified...and is carried out for the purpose of advancing an ideological, political, or religious cause, and with the following intention:
- (a) to induce terror in a civilian population; or
 - (b) to unduly compel or to force a government or an international organisation to do or abstain from doing any act.
- (3) The outcomes referred to in subsection (2) are—
- (a) the death of, or other serious bodily injury to, 1 or more persons (other than a person carrying out the act);
 - (b) a serious risk to the health or safety of a population;
 - (c) destruction of, or serious damage to, property of great

value or importance, or major economic loss, or major environmental damage, if likely to result in 1 or more outcomes specified in paragraphs (a), (b), and (d);

- (d) serious interference with, or serious disruption to, an infrastructure facility, if likely to endanger human life;
- (e) introduction or release of a disease-bearing organism, if likely to devastate the national economy of a country.”

The Act makes it an offence to finance terrorism, as follows:²⁶

“A person commits an offence who, directly or indirectly, wilfully and without legal justification or reasonable excuse, provides or collects funds intending that they be used, or knowing that they are to be used, in full or in part, in order to carry out 1 or more acts of a kind that, if they were carried out, would be 1 or more terrorist acts.”

The Act included a range of measures that are designed to enable New Zealand to meet its international CFT legal obligations. It enabled New Zealand to comply with the financing aspects of UN Security Council Resolution 1373, and with the obligations in the International Convention on the Suppression of the Financing of Terrorism. The Convention was ratified by New Zealand on 5 December 2002.

Another piece of legislation, the Counter Terrorism Bill, was being considered by Parliament at the time this article was prepared. This Bill contains supplementary powers in the form of new terrorism related offences and penalties, including the provisions needed to implement two terrorism conventions (on the protection of nuclear material and marking of plastic explosives) and a range of investigative measures designed to combat terrorism and address miscellaneous problems encountered by agencies in the investigation and enforcement of offences. When this Bill is enacted, New Zealand will be party to all 12 international conventions and protocols on combating terrorism

New Zealand actively participates in international CFT initiatives, both through regional bodies, such as the APG, PIF, APEC and ADB, and also through the broader international forums such as FATF and the Egmont Group.

²⁴ Pacific Island Forum *Press Statement of 28/2/03*.

²⁵ Terrorism Suppression Act 2002 s5.

²⁶ Terrorism Suppression Act 2002 s8.

The Ministry of Justice, the Ministry of Foreign Affairs and Trade, the New Zealand Police and the Reserve Bank are involved in this work. The Ministry of Justice is the lead agency for New Zealand.

The role of the Reserve Bank is to encourage banks to use best practice in respect of money laundering policies and procedures. The Reserve Bank seeks confirmation on a regular basis that banks are applying best practice.

During the last quarter of 2003, New Zealand will be undergoing an FSAP assessment by the International Monetary Fund (IMF). This assessment will look at a number of aspects of the financial sector in New Zealand, with a view to evaluating the quality of New Zealand's financial

sector regulation and assessing the potential vulnerability of the financial system to economic and financial shocks. The FSAP will include an assessment of New Zealand's compliance in the anti-money laundering and CFT area. The anti-money laundering and CFT assessment will be based largely around how well New Zealand complies with the FATF 40 Recommendations and 8 Special Recommendations, as well as best practice standards for bank customer due diligence set by the international banking supervisory standard setter (the Basel Committee). As a precursor to the FSAP assessment, New Zealand is compiling a self-assessment of its compliance, using the assessment methodology drafted jointly by the FATF and the IMF.

Monetary policy and the volatility of real exchange rates in New Zealand

Summary of a lecture by Professor Ken West

By David Hargreaves, Economics Department

This article is a brief summary of a lecture delivered on 19 June at Victoria University in Wellington by Professor Ken West. Professor West was a visiting professor under the Professional Fellowship programme sponsored by the Reserve Bank.

Inflation targeting central banks use monetary policy to reduce fluctuations in inflation and the real economy. Currently, a research focus at the Reserve Bank is thinking about whether the Bank can reduce the cycle in the real exchange rate while continuing to pursue its other objectives (particularly price stability) effectively. This is an important interest for the Bank, because it is crucial to the implementation of the Policy Target Agreement, which states that the Bank should avoid unnecessary instability in the real exchange rate whilst achieving price stability.

Professor Ken West, a recent visitor under the Professorial Fellowship¹ programme that the Bank sponsors, tackled this question during his time at the Reserve Bank.

Essentially, Professor West highlights two potential problems with pursuing exchange rate stabilisation:

- The difficulty of understanding the relationship between interest rates and the exchange rate. Most economists believe that interest rates and the exchange rate are related by the actions of international investors. For example, all else being equal, an increase in interest rates here will prompt international investors to shift capital to New Zealand, pushing the exchange rate up. While there is weak empirical evidence of this relationship, it is clear that exchange rates fluctuate a lot more than short-term interest differentials can justify.

- The fact that active real exchange rate stabilisation will sometimes conflict with other objectives. For example, when the economy is strong and domestic inflation is rising, the central bank will normally want to raise interest rates in order to prevent an inflationary problem from emerging. However, if the exchange rate is rising, that increase in interest rates may tend to push the currency still higher.

Professor West presented simulation results that demonstrated the importance of the second potential problem. His approach was to build a model of the New Zealand economy that included the exchange rate, a stylised monetary policy with similar features to our approach, and a link between interest rates and the exchange rate. He then explored what would happen if interest rates were altered to reduce the quarter-to-quarter ups and downs in the exchange rate.

On the basis of his model, he concluded that there appear to be trade-offs in seeking to reduce variability in the real exchange rate. Reduced variability in the real exchange rate is likely to be associated with increased volatility in other key economic variables, such as interest rates, inflation and real economic growth. Specifically, to cut quarter-to-quarter variations in the exchange rate by one fourth, Professor West suggested we would probably have to accept:

1. 15 - 40 per cent bigger swings in interest rates
2. 10 - 15 per cent bigger swings in the real economy; and
3. up to 15 per cent bigger swings in the inflation rate.

The model these conclusions are based on is fairly simple. For example, monetary policy is represented by a so-called Taylor rule, where the central bank reacts fairly mechanically to the output gap and inflation. To capture dynamic relationships in the data that are not modelled by his simple equations, he imposes an econometrically estimated structure on the disturbances to the model. This structure is artificial,

¹ The Professorial Fellowship in Monetary Economics at Victoria University of Wellington was initiated by (and is funded by) the Reserve Bank. Fellows spend part of their time at Victoria University and part at the Reserve Bank, interacting with staff at both institutions and conducting research relevant to central banking in New Zealand. The views expressed by fellows do not necessarily reflect the views of the Reserve Bank of New Zealand.

but seems to capture the key relationships we would want a small model of the economy to cover.

However, Professor West suggests his estimates represent a lower bound on the costs of greater exchange rate stability. This is because the estimate presumes a solid relationship between interest rates and the exchange rate, and a central bank that fully understands the behaviour of the exchange rate (including sorting out temporary fluctuations from any long-term trend in the equilibrium exchange rate) and that can respond immediately to exchange rate fluctuations.

To see the effects of this in more detail, we need to know how the exchange rate is determined in Professor West's model. In the model, a higher interest rate outlook in New Zealand drives the exchange rate up until the extra interest rate return is offset by expected future exchange rate depreciation. This is an uncovered interest parity or "UIP" relationship between interest rates and the exchange rate. His modelling allows that other things also affect the exchange rate, but this "UIP" relationship is presumed to be operative.

However, as Professor West pointed out when presenting the results of his research at a public lecture in June, we can't be certain that this core component works very well. The graphs below show the actual relationship between quarterly interest rate differentials and quarterly exchange rate changes. The two scatter plots below show there is essentially no relationship in the case of the NZD/USD, and a

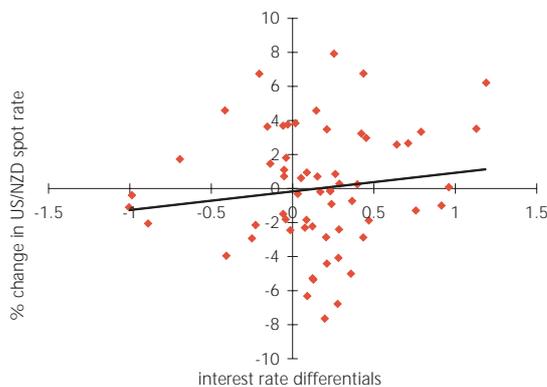
relationship dominated by other fluctuations in the case of NZD/AUD. If the UIP relationship worked perfectly and dominated other influences on the exchange rate, there should be a much tighter relationship between interest rate and exchange rate changes. Because UIP relates today's exchange rate movements to expected future interest rate differentials, the graph is a bit of a simplification, but more sophisticated studies of UIP also generally fail to demonstrate that it holds in reality.

This means, as noted above, that Professor West's estimated trade-off between a smoother exchange rate ride and a rougher ride elsewhere represents an optimistic case. Like all central banks, the Reserve Bank lacks a solid understanding of the factors behind exchange rate movements, which makes acting to influence the exchange rate much harder.

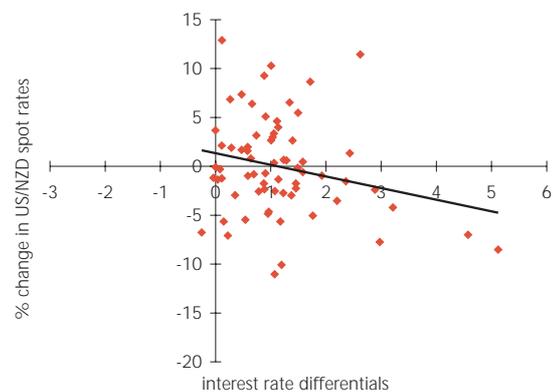
This research is important for the Bank in the context of its obligations under the Policy Target Agreement to minimise "unnecessary variability" in the exchange rate. To a degree, an inflation targeting central bank has an automatic tendency to lean against exchange rate fluctuations, in order to stabilise inflation and the real economy. Professor West's research suggests that to go further in attempting to stabilise the exchange rate would have significant costs in terms of greater variability in interest rates, inflation and economic growth. We are continuing to think about these results, and analyse them further using our own macroeconomic model (FPS).

The full lecture is likely to be published in a refereed journal in due course.

Quarterly Series of Australia and New Zealand interest rate differentials and exchange rate changes



Quarterly Series of United States and New Zealand interest rate differentials and exchange rate changes



Has the rate of economic growth changed?

Evidence and lessons for monetary policy

Summary of professorial lecture by Professor Matthew Shapiro¹

Christopher Plantier, Economics Department

This article is a brief summary of a lecture given by Professor Shapiro on 8 April 2003 at Victoria University in Wellington. Professor Shapiro was a visiting professor under the Professorial Fellowship² programme sponsored by the Reserve Bank.

In order to implement monetary policy appropriately, the Reserve Bank must continually update and evaluate its view of trend productivity growth, so that it can assess how much of New Zealand's economic growth in any period is attributable to productivity changes and how much is due to increases in factor inputs (such as labour and physical capital). This distinction is important because it enables the Reserve Bank to assess the extent to which economic growth over a given period may be placing pressure on the productive capacity of the economy, and therefore potentially creating inflationary pressures. All else being equal, the higher the growth in productivity in the economy, and the greater its contribution to total economic growth, the faster the economy can grow without placing excessive pressure on productive capacity and the lower the risk of inflation rising as a result of rapid growth in the economy.

However, assessing trend productivity for any given period, and over time, is fraught with difficulties. One source of that difficulty is the inadequacy of economic data, which restricts the ability to assess precisely the extent to which productivity growth has contributed to total economic

growth over a given period. Moreover, there are difficulties in clearly determining the stage of the business cycle, and hence the cyclically-adjusted level of economic growth in any given period. This creates further obstacles to the accurate assessment of trend productivity growth. These difficulties create uncertainty about the extent to which the economy's growth over a given period may be placing pressure on resources in the economy and creating underlying inflationary pressures.

Professor Shapiro has studied the apparent acceleration of trend productivity growth in the United States in the 1990s. He has developed some techniques for better understanding and measuring the component of measured growth that is attributable to the business cycle, as opposed to being attributable to the trend.³ Most attempts to measure productivity growth trends allow for cyclical factor utilisation, such as variations in overtime or capacity utilisation. These variations in factor utilisation can look like variations in productivity, but they are inherently related to the business cycle, and are not lasting. Accordingly, they can distort one's view of trend productivity growth.

On the other hand, there is another component that is not normally allowed for in attempts to differentiate trend from cycle. This concerns adjustment costs. Adjustment costs are incurred, for example, when businesses invest, which often happens in accelerated fashion late in the upswing of a business cycle. The investment diverts people and sometimes existing physical capital away from current production in order to put new productive capacity in place. During this phase, productivity appears to drop, since less current output is being produced by the same volume of inputs. But not only is this drop temporary, it results from the actions that are needed to increase trend productivity.

¹ Matthew D. Shapiro is Professor and Chair of Economics and Senior Research Scientist of the Survey Research Center at the University of Michigan. He is also a Research Associate of the National Bureau of Economic Research. His website is <http://www.econ.lsa.umich.edu/~shapiro/>

² The Professorial Fellowship in Monetary Economics at Victoria University of Wellington was initiated by (and is funded by) the Reserve Bank. Fellows spend part of their time at Victoria University and part at the Reserve Bank, interacting with staff at both institutions and conducting research relevant to central banking in New Zealand. The views expressed by fellows do not necessarily reflect the views of the Reserve Bank of New Zealand.

³ See Basu, Susanto, John G Fernald and Matthew D Shapiro (2001), "Productivity growth in the 1990s: Technology, utilization, or adjustment?" Carnegie-Rochester Conference Series on Public Policy 55: 117-165.

Conversely, during downswings, businesses tend to invest less, using proportionately more of their current resources to produce current output, which appears as increased productivity. Again, this is attributable to the cycle rather than the trend.

In the research described in his lecture, Professor Shapiro asked whether there was any evidence that trend productivity growth in New Zealand had also accelerated in the 1992 to 2002 period, and he explored the nature of the cyclical adjustments relevant to the measurement of trend productivity growth in New Zealand.

The key findings from Professor Shapiro's research were the following:

- According to his estimates, trend total factor productivity (TFP) growth – referred to as trend productivity growth in the remainder of this note – in New Zealand appears to have been 1.1 per cent per annum from 1992 to 2002. TFP growth is the component of real GDP growth not explained by increased quantities of labour or capital with their embedded qualities.
- This trend productivity growth compares favourably with that achieved by leading countries in the 1980s, but is less than the nearly 2 per cent achieved by the US from the mid - 1990s.
- At projected labour growth rates, and without significant additional capital deepening, New Zealand's trend productivity growth rate would have to more than double to achieve the United States' performance of 3.5 to 4 per cent real GDP growth.
- Although an increase in trend productivity growth is by no means impossible, New Zealand's trend productivity growth rate has actually slowed since the mid-1990s. According to Shapiro, trend productivity growth was more rapid from 1992 to 1995 than from 1996 to 2002, falling from 1.5 per cent in the earlier period to 0.8 per cent in the latter period. Based on his calculations, much of the growth in the late 1990s and early 2000s came from increased capital accumulation, rather than trend productivity growth.
- The adjustment for cyclical factors that might bias productivity measurement over time *does not* have a dramatic effect in the New Zealand context.

- There are not unusually large problems with the statistics in New Zealand that would invalidate comparisons with other countries, at least when comparing growth rates across countries.
- In Shapiro's view, unlike the mid-1990s case for the United States, there is no support available from the New Zealand data for assuming strong trend productivity growth when assessing the appropriate stance of monetary policy and "taking a gamble" as he puts it. Shapiro notes that if central banks are to adjust monetary policy on the basis of an *assumed* trend productivity growth, they would need to commit to reversing the inflation consequences of getting it wrong by tightening monetary policy to such a level as to re-attain stability in the price level.

What role does monetary policy play in fostering growth?

Shapiro argues that monetary policy can do little or nothing to affect the level of productivity in the economy in the long run, but that central banks should still be cognisant of potential changes in productivity of the economy over time, so as to be better informed of the inflation consequences of a given growth rate in total output. For example, the introduction of new technology or a new way of doing business may lead to one-off increases in aggregate productivity (or a sequence of one-off increases if economy-wide adoption takes time). Because of these jumps, monetary policy must diligently track trends in aggregate data that may signal when spurts in productivity have occurred.

In regard to forecasting trends in productivity growth, Shapiro suggests that monetary policy should be operated so that it can achieve "good outcomes even when forecasts of economic growth prove to be wrong." As noted above, his suggestion is that a central bank should commit itself to unwind any inflationary consequences arising from an incorrect view of trend productivity growth, so that they can credibly take a "growth gamble".

The analysis behind Professor Shapiro's lecture was published as a discussion paper, and can be found at http://www.rbnz.govt.nz/research/discusspapers/dp03_07.pdf.

Summary of a new Reserve Bank of New Zealand paper: Overview of New Zealand financial sector regulation

Geof Mortlock, Financial Stability Department

In the March 2003 issue of the *Bulletin*, we ran an article explaining the Financial Sector Assessment Programme (FSAP) and noted that New Zealand will be undergoing an FSAP assessment later this year. The FSAP assessment will take place in October and November this year and will involve a team of foreign officials, led by the International Monetary Fund, assessing various aspects of New Zealand's financial system. This will include an evaluation of much of the financial sector regulatory framework, particularly banking supervision and securities market regulation.

In preparation for the FSAP, the Reserve Bank and a number of other government agencies (including the Securities Commission, Ministry of Economic Development and Ministry of Justice) have been preparing material to assist the FSAP team conduct their assessment. One part of this material is a paper that provides an overview of the structure of the New Zealand financial system and the regulatory framework. This paper is being made available to the FSAP team and will be released publicly. It can be accessed via the Reserve Bank's website: www.rbnz.govt.nz

The paper notes that the financial system performs a range of important functions in the economy, including providing a mechanism for storing wealth, for allocating credit, for exchanging payments and for facilitating foreign exchange transactions. To perform these functions, the financial system comprises a complex matrix of financial institutions (the entities that provide financial services), financial markets, payment and settlement systems, and legal and accounting infrastructure. The paper describes the nature of the financial institutions operating in New Zealand, their functions and their share of the total market. It also describes the different types of financial markets in which these institutions and other users of the financial system operate, including the bond market, money market and foreign exchange market. And the paper provides an overview of the legal and accounting framework governing the financial system.

The main focus of the paper is the regulatory framework in the financial sector. It commences this discussion by summarising the public policy rationale for regulatory intervention in the financial sector. The paper notes that, in the banking supervision area, the objectives of supervision are to promote the maintenance of a sound and efficient financial system and to avoid damage to the financial system resulting from the failure of a registered bank. It notes that, in the area of securities market regulation, the main policy objectives are to promote securities markets that are reliable and efficient and that have integrity, and where investors can make well-informed decisions.

The paper then discusses the key elements of the financial sector regulatory framework, focusing mainly on banking supervision and the regulation of securities markets, but also including discussion of the regulation of life insurance, superannuation schemes, unit trusts, and securities exchange markets. There is also a discussion of some of the more recent developments in regulatory intervention, including the introduction of the Takeovers Code.

The paper also covers a range of ancillary issues, including the role of industry associations in the regulation of the financial sector and the mechanisms used to coordinate regulation across the sector.

We believe the paper will be a useful resource, not only to the FSAP team, but also to anyone else with an interest in the financial sector.

SPEECHES

Financial system regulation in New Zealand

Alan Bollard, Governor, and Tim Ng, Manager, Financial System Policy,
Reserve Bank of New Zealand. Speech presented to the Finance Sector Ombudsman
Conference, 25 July 2003, Wellington, New Zealand

This paper discusses the Reserve Bank's role in the regulation of the financial system. It begins by outlining the importance of the "infrastructure" supporting financial activity – that is, the framework of applicable statutory law, administered policy, contracts, codes of conduct, corporate governance, and dispute resolution processes. Then, we discuss the Reserve Bank's objectives and our approach to the exercise of our powers. As the Reserve Bank is one of a number of financial regulators in New Zealand, we touch on how our responsibilities fit into the overall regulatory system applying to the financial sector. We make some observations about the special character of the New Zealand financial system, how it is changing, and the implications for financial regulators. Finally, we discuss some current policy work at the Reserve Bank on these issues.

Infrastructure for a sound and efficient financial system

Financial firms accept funds from customers and investors, and transform those funds into financial products carrying a range of risk, return and liquidity characteristics. These products are then offered for sale into the marketplace. Given that financial products are obligations to deliver value in the future, the importance of a sound, robust and transparent framework of rules governing those obligations cannot be overstated. In order for the financial system to perform effectively, the rules must appropriately define the meaning of the obligations, their proper execution, and their enforcement.

At the highest level, rules may be set by statute. In New Zealand, a number of pieces of legislation govern the financial system. The activities of particular kinds of financial institutions may be regulated – for example, by the Reserve Bank of New Zealand Act for banks and by the Life Insurance Act for life insurers. As corporate businesses, financial institutions are also subject to the various statutes defining general business law, such as the Companies Act, the Commerce Act and the Fair Trading Act.

The manner in which financial products may be offered may also be regulated. For example, the Securities Act specifies disclosure and prospectus issuance requirements for securities offered to the public, and the Credit Contracts Act places certain restrictions on advertising content related to consumer loans.

Rules may also be made by government agencies, in cases where they have been empowered by legislation or Ministerial directive. Examples include the rulemaking powers given to the Reserve Bank by the Reserve Bank of New Zealand Act, and to the Ministry of Economic Development by the Securities Act.

Outside the realm of rule-making by Parliament and by government agencies, financial institutions have the ability to enter into contracts with their customers, setting and agreeing to abide by rules defining their rights and obligations with respect to those customers. Financial institutions may also bind their own behaviour through industry-agreed codes of conduct and guidelines for market practices. Finally, as a matter of good corporate governance, individual institutions will typically make internal rules to ensure that the institution's obligations are exhaustively identified and discharged.

All these different means of making rules have a role to play in increasing affected parties' mutual understanding and

acceptance of respective rights and obligations. Such mutual understanding is a crucial component of the actual process of adding and selling value in a financial service.

For any particular kind of financial activity, the particular rule-making device chosen to set parameters around conduct should suit the circumstances, considering the risk and value at stake and the costs and risks of the rule-making device itself. The making of rules should also recognise the limitations of rules. An example is in the area of corporate governance, about which much has been written and said recently (including by the Reserve Bank).

It is certainly true that rules can be made with the aim of improving corporate governance and good business practice. There is, of course, an extensive debate currently about the proper regulatory response to the recent spectacular failures of large, complex firms such as Enron, Worldcom and, closer to home for New Zealand, HIH. In response to the belief that poor corporate governance contributed significantly to these failures, some countries have responded with regulation to corporate governance – for example, the Sarbanes-Oxley Act in the United States.

These debates and initiatives are no doubt worthwhile, but they should not neglect the fundamental importance of ethics at every level of an organisation. Good ethics by their nature are difficult to prescribe in law. Leadership throughout organisations in this area is crucially important, and transparency is probably helpful too.

A third element of sound infrastructure for the financial sector, alongside rules and ethics, is efficient and effective dispute resolution procedures. Such procedures are necessary to cover the inevitable cases where the parties affected by a rule disagree on what constitutes a fair and reasonable interpretation of what was agreed to.

Just as in the case of rule-making devices, in dispute resolution, “horses for courses” applies. There is in New Zealand a well-defined escalation process for financial services complaints, from taking the complaint first to the financial institution, then if necessary to the applicable Ombudsman's Office, then if necessary through the normal judicial process.

The Offices of the Banking Ombudsman and the Insurance and Savings Ombudsman are not statutory bodies, and participation by financial institutions is voluntary. It appears

that most, if not all, significant financial institutions participate. The role of these offices is to assist customers of banks, insurance and savings companies resolve their disputes with their financial institution in an impartial manner, over matters involving monetary sums up to specified limits.

Rules and enforcement processes are particularly important when things go wrong, for whatever reason. In the case of financial institutions, problems may escalate and spread very quickly and constitute, in central banking jargon, systemic events. Systemic events are those in which one institution's distress is not adequately contained within that institution, but spreads to materially weaken other financial institutions. Distress may spread through the exposures financial firms typically have to each other, and through confidence effects affecting the wider financial system. Our interest in the infrastructure supporting the financial system is motivated by the belief that good rules, ethics and dispute resolution contribute importantly to reducing the likelihood that small problems will turn into large ones.

RBNZ's role and objectives in banking supervision

The New Zealand financial system, like those in other countries, is subject to regulation by a number of authorities for a variety of purposes as specified in legislation. As in all countries, the mix of regulatory measures is designed around a balance of systemic, institutional and consumer protection. And as for other systems, sometimes these objectives will be conflicting, with measures intended to protect some parties inadvertently skewing incentives for other parties. To address these sorts of issues, our system recognises the need for cooperation between regulators, and there is regular dialogue among us to this end.

For its part, the Reserve Bank is charged with registering and supervising banks for the purposes of promoting soundness and efficiency in the financial system, and the avoidance of significant damage to the financial system resulting from the failure of a registered bank. In practice, this focus on banks covers the vast bulk of the financial system. The non-bank financial sector is growing quite strongly, but over 90% of total assets in the system continue to be held in banks.

Banks are also important because of their core position in the payments system – performing functions vital to the performance of the wider financial industry and economy. During normal times, the operations of the payment system are probably both out of sight and out of mind for the vast majority of people. But in times of financial distress, disruptions in payments systems may have much more dramatic consequences and effects on the wider economy.

The banking system is itself dominated by five large banks, which together account for around 85% of all assets held in the banking system. These banks are all foreign-owned, with four being owned by Australian parent banks and one by a UK parent bank. This high degree of foreign ownership by large offshore parent banks has particular implications for the design of our regime, which we discuss later.

As noted, the Reserve Bank's regulatory focus is on systemic soundness and efficiency, rather than the financial health of individual banks *per se*. There is no government guarantee that banks will not fail, and there is no deposit insurance provided or mandated by the government. The Reserve Bank does not have depositor protection as one of its objectives. New Zealand is quite unusual in this respect, but there are good reasons for this policy choice, which we explain a little later.

Other types of financial institutions in New Zealand are regulated by other agencies, with varying degrees of emphasis on systemic, institutional and individual protection. For example, the Ministry of Economic Development has primary responsibility for the prudential regulation of non-bank financial institutions such as insurers and fund managers. Issues of competition in the financial sector, and in the rest of the economy, are the domain of the Commerce Commission. The Ministry of Consumer Affairs has a role in ensuring that consumers are well-informed about their rights as they relate to the purchase of goods and services, including financial services.

The Reserve Bank's focus on systemic soundness and efficiency does not mean that we regard ordinary depositors as unimportant. In fact, we feel that depositors, like other creditors and counterparties of banks, have a very important role to play. We require banks to publish an extensive range of information about their business in the form of disclosure

statements, and require some of this information to be packaged such that it is understandable by the ordinary depositor. All deposit-taking banks must publish a Key Information Summary containing information about the bank's creditworthiness, and these Key Information Summaries must be prominently displayed and available on demand in all branches. The purpose of these Key Information Summaries and other disclosures is so that bank depositors and other creditors and counterparties have a large amount of information with which to assess a quality of service that is crucial, but not always highly visible – the creditworthiness of the bank itself. These parties can then make an informed choice about the extent to which they should be exposed to that bank.

An important element of enhancing the effectiveness of market discipline and the value of disclosures is strengthening the incentives on those exposed to financial institutions to monitor their bank's financial health carefully. This is the reason why there is no deposit insurance and no government guarantee of banks in New Zealand – such features would undermine the incentives of depositors, creditors and other counterparties to monitor effectively, to the detriment of soundness and efficiency. In an environment of extensive disclosure and intensive monitoring, any excessive risk-taking by banks will be quickly revealed to the market, and the bank will lose business as a result. Thus will the bank's risk-taking decisions be aligned appropriately to the returns expected and demanded by those who are ultimately exposed to that risk.

In essence, we have made a policy choice in eschewing regulatory measures to protect depositors, in favour of relying on market discipline and encouraging active competition in banking to achieve the same end. In making this choice, we have been aware of the risk that regulatory protection of depositors can inadvertently and inappropriately become *de facto* protection of shareholders, undermining incentives for good risk management and leading to lower-quality financial system performance overall.

The disclosure framework is an important element of our overall strategy for promoting soundness and efficiency. The strategy comprises disciplines on banks to manage their risks appropriately, while encouraging them to innovate and produce better, cheaper financial services. The three

disciplines are market discipline, self-discipline and regulatory discipline. Our regime emphasises self-discipline and market discipline, these being the types of discipline we believe are likely to contribute best to our objectives.

As already mentioned, the foundation of market discipline is the disclosure framework. Maintaining an open and competitive banking industry also contributes importantly to market discipline. The dominance of a few large banks in the system and their ownership by large foreign parent banks means that there are strong incentives for those banking groups to protect their reputations, and to avoid activities to which the market might react adversely once they are disclosed. For these purposes, the relevant “market” is a quite general group of parties, including not only depositors, creditors and counterparties, but also the community of competitor banks, market analysts and commentators that have an interest in scrutinising the financial health and performance of banks. We do note that the record of public scrutiny of bank disclosure statements has sometimes been a little disappointing. While intensely scrutinised by competitor banks, they have not had much attention from the media or analysts. One noteworthy exception is the work of David Tripe at the Centre for Banking Studies, Massey University.

Self-discipline is founded on requirements for bank directors to attest to the quality of their bank’s risk-management systems. It is clearly bank directors’ responsibility to oversee risk management and strategic direction – not the Reserve Bank’s – and the attestation requirements are designed to strengthen and underline these responsibilities. Also, banks are subject to requirements to have at least two independent directors and a non-executive chairman on the board, further bolstering the quality of self-discipline.

Regulatory discipline covers those rules imposed by statutes and government agencies that relate to the financial service business itself. Compared to most overseas jurisdictions, in New Zealand these rules are quite limited. In the case of banking, the Reserve Bank does not do on-site inspections for the purpose of validating banks’ risk-management systems, and in general we avoid imposing detailed, prescriptive rules regarding banks’ risk-management practices.

We do not license the business of banking *per se*. Financial institutions do not have to be registered banks in order to take deposits and make loans. A financial institution can conduct the business of banking without being subject to the Reserve Bank’s prudential requirements for registered banks, so long as it does not use the word “bank” in its name. The main features of regulatory discipline for banks in New Zealand are capital adequacy requirements based on international norms as codified in the Basel Accord – banks must hold capital at least equal to 8% of risk-weighted assets – and restrictions on connected lending and the degree of non-banking business that may be conducted by registered banks.

We avoid prescriptiveness because we believe it may lead to sub-par performance in the financial sector, for a number of reasons. First, the more behaviour is prescribed, constrained and directed by official agencies, the more likely it is that an implicit government guarantee will be created. Second, excessive prescription may distract executives, leading them to neglect effective risk management and instead merely tick boxes to follow regulators’ rules. Finally, in the extreme, excessive prescription may increase the opportunity for cynical gaming of rules, creating a fog of artifice that may expose the firm to large and poorly understood risks – risks that may end up sinking it altogether.

Our reluctance to impose prescriptive rules about permissible financial activities should not be taken to imply that we do not think rules are important. We think they are very important, for the reasons outlined earlier. However, our view is that directors and executives of financial institutions are best-placed to set such rules regarding their own risk management, and that they must take full responsibility for setting appropriate rules in an environment of stringent market discipline and strong measures to encourage self-discipline. Moreover, financial activity is becoming increasingly complex, and increasingly challenging regulators’ technical ability to prescriptively regulate financial innovation without causing unintended distortions, even if regulators had a desire to so regulate, which we do not. Finally, the prescriptive mentality militates against the objective of dynamic efficiency, which requires a sufficiently flexible regulatory environment for innovation to flourish.

Developments in New Zealand financial system and implications

The financial services industry worldwide is increasingly dependent on technology. Advances in information technology are enabling new and increasingly sophisticated financial products to be produced, and risk and return to be unbundled, repackaged and redistributed. Also, IT is enabling financial firms increasingly to operate cross-border and manage their business on a global basis, and to continue to blur the boundaries between bank and non-bank financial institutions. Foreign parent financial institutions already own most of the New Zealand banking, insurance and fund management industries.

There is little doubt that these developments are improving many aspects of the quality of financial services, and reducing their cost. Some of the quality improvements seen by the customer include being able to conduct financial business faster, being able to access financial services in more ways, and being able to build an investment portfolio from an increasing range of sophisticated financial products with more finely grained combinations of risk, return and liquidity.

However, increasing sophistication also presents a number of challenges for regulators charged with promoting soundness in the financial system. Of course, there is the straightforward point that increasing use of financial engineering complicates the assessment of banks' risk positions, by both banks themselves and by regulators. All this means is that everyone involved, bank management and regulators alike, must keep up to date with innovation.

More importantly, efficiency requires that if risks are not eliminated, then that they are properly understood, managed and priced. Where these conditions are not met, risk needs to be regulated, particularly where it may be transferred to unknowing or unwilling parties. One generally unwilling risk-bearer of particular importance is the government. It is a perennial concern of financial regulators to avoid inadvertently creating an implicit government guarantee of financial institutions. The existence of an implicit guarantee leads naturally to excessive risk-taking by financial institutions, keen to enjoy the upside of risky propositions while transferring the downside to the taxpayer.

Also of importance is that operational risk in the financial system may increase as dependence on technology increases, especially in a system with high foreign ownership such as New Zealand's. Financial firms owned by foreign parents may, on perfectly reasonable efficiency grounds, be motivated to consolidate core functions such as payments clearing and other back office functions into the parent's operations at home. In a competitive market in normal times, such efficiencies should be passed on to customers in New Zealand, to their benefit. However, during times of stress, cross-border dependencies may compromise regulators' ability to minimise the systemic consequences of operational disruption or financial distress.

RBNZ policy responses and initiatives

We have emphasised New Zealand's reliance for regulatory purposes upon market forces to achieve good outcomes for customers and the industry alike. This emphasis, however, should not be taken to mean that we are operating a regime of no regulation, or a regime in which the Reserve Bank "looks the other way" in the face of violations of rules we have set. In a limited number of areas – for example, capital adequacy and connected lending – we have been prepared to be prescriptive, where we have felt that the systemic risk to which the financial system would be exposed would otherwise be too great, and the costs of extra prescriptiveness are small in comparison. The attestation and disclosure framework is a fairly extensive set of requirements we have thought very carefully about, we actively enforce it, and we assess it continually against our soundness and efficiency objectives.

How do we know if our regime is right for New Zealand? A related question is, what would we expect to see, or not to see, if the New Zealand financial system were performing well?

In terms of soundness, we would expect to see the financial system continuing to perform its key functions of intermediating credit, providing payment services and circulating liquidity in the face of stress. This is indeed what we do see. No major financial institution in New Zealand has failed since the introduction of the attestation and

disclosure framework – despite a reasonably stringent test in the form of the Asian crisis and a fall in the exchange rate from 70 cents against the US dollar in 1997 to 40 cents in 2001. Currently, the New Zealand banking system is in an extremely healthy state, with non-performing assets at very low levels compared to other developed countries.

In terms of efficiency, there is ample evidence of the beneficial effects of openness and competitiveness in the financial system. Banks, for example, compete actively to offer to customers new products and new ways of obtaining service. The sophistication of New Zealand's retail payments system in particular stands out, with New Zealand banks able to achieve early and successful penetration of innovations such as EFTPOS and internet banking, which continue to grow strongly. Interestingly, after a period of decline, the number of bank branches is growing again (even after deducting the effect of Kiwibank, which had established 280 branches by the end of last year). The latest bank to be registered, Superbank, intends to offer physical banking facilities in supermarkets. Banking activity is increasingly being linked to loyalty programmes. New Zealand banking customers rate very highly internationally in terms of their uptake of new technologies and services. This dynamism in the industry is what one would wish to see from a well-performing financial system that is taking advantage of new technological opportunities and pursuing new business strategies.

This is all well and good. However, as a regulator, no less than as a financial institution, one cannot afford to be complacent. Changing circumstances in the financial system change the nature and magnitude of risks that must be managed, including systemic risks. In the management of systemic risk, a careful balance must be struck between soundness on the one hand, and efficiency on the other. It is an unavoidable fact that not all eventualities can be planned for, and that there exists the possibility of catastrophic risks so large that they will induce financial distress despite any reasonable amount of planning and provisioning.

It is on this class of hopefully very rare, but nevertheless very adverse, events that much of our recent and current policy work is focused. There are two strands to our policy focus on what happens when things go badly wrong. The first is work on initiatives to reduce the probability that things will go badly wrong in the first place. The second is containing

the damage to the financial system in the event that something very bad in fact does happen.

The first strand of work includes an assessment of the quantity and quality of capital for New Zealand banks that would be appropriate given their risk profiles. The Reserve Bank will also need to make some decisions about how New Zealand should implement the new Basel Capital Accord due out at the end of the year. We are implementing our local incorporation policy, under which systemically important banks will be required to be incorporated in New Zealand. Local incorporation will contribute to ensuring that overseas-owned registered banks in New Zealand are governed by directors with a duty to act in the best interests of the New Zealand bank. Currently, only one systemically important bank in New Zealand is not locally incorporated, and we are working with that bank to deal with the issue appropriately.

The local incorporation policy also applies to overseas-owned banks with significant retail deposits in New Zealand whose country of incorporation applies a preference to depositors from that country in the event that the bank fails. Such a situation creates significant uncertainty over the position of New Zealand depositors and creditors of the bank in the failure situation. Australia is one such country, so the issue of depositor preference is quite germane given the extent of ownership of New Zealand banks by Australian parent banks.

The second strand of work is focused on the need rapidly to resume the operations of a failed systemically important bank, to minimise the disruption caused to the rest of the financial system and wider economy in the event of a failure. One major part of this work is to explore the feasibility of recapitalising a failed bank using creditors' funds. A related part is to evaluate the core bank functions necessary for a statutory manager to be able to operate the bank on a stand-alone basis in a distress situation, and how we could ensure that a New Zealand statutory manager will have jurisdictional reach over those functions.

Fortunately, we are not alone in our efforts to improve systemic risk management in the financial system. In the realm of payments systems, much of the work is collaborative with banks. For example, banks are currently working to clarify and update the legal, financial and operational arrangements to apply should a system participant fail to

complete its deferred payment transactions. This clarification will reduce uncertainty about the treatment of payments progressing through the system in the event of disruption. The Reserve Bank is fully supportive of this initiative and is assisting where it can. We are also working with the industry to prepare for the New Zealand dollar to be eligible for settlement through the Continuous Linked Settlement Bank, which will markedly reduce settlement risk in foreign exchange transactions involving the New Zealand dollar.

An overarching issue surrounding much of this work is the implications of increasing integration between financial systems around the world, as alluded to earlier. As already mentioned, New Zealand's financial system is already highly integrated with Australia's. Australian parent banks are increasingly managing their group's business, including importantly its information technology, accounting and risk management functions on a global basis. In normal circumstances, the location of core functionality of a bank is of relatively little concern, provided that there are robust service agreements and the bank in question is fully satisfied that the providers of the functions are capable of performing the functions efficiently and reliably. However, when stress emerges, the legal structure and physical location of different parts of the business may affect the ability of New Zealand authorities to contain the distress. Part of the background to assessing these issues is the respective roles and responsibilities of Australian and New Zealand regulators, especially in cases where the distress event hits both sides of the Tasman. We are now working to clarify the appropriate levels of access to technology and functional control to cope with a stress event.

As the world changes, regulators must be prepared to adapt and respond. Although New Zealand's regime places more emphasis on self-discipline and market discipline relative to regulatory discipline compared to many other jurisdictions, it is probably fair to say that the difference is diminishing. Other regulators are increasingly formalising disclosure requirements and strengthening corporate governance requirements for financial institutions. Likewise, the Reserve Bank always stands ready to adapt the mix of the three disciplines on the banking system to suit evolving circumstances around systemic soundness and efficiency.

In this context it may be appropriate to comment on a recent market development, the decision by Lloyds in the UK to consider a possible sale of the National Bank. A possibility that has been discussed in the media is that an acquirer could be an existing Australian bank. If that were to eventuate, all systemically important banks in New Zealand would be owned solely out of one country. We have kept in touch with the parties and have informed them of our general views on this. Our position is that we would expect there to be no material transfers of National Bank business into branch form, and we would expect further discussions before any movement of technical capacity that reduced the bank's ability to continue to operate on a stand-alone basis under New Zealand statutory management. We would also be looking at the adequacy of current risk-management requirements for systemically important banks in the context of any further aggregation of country risk.

The Reserve Bank is keen to ensure that our regulatory system is invigorated and focused. Thus far, the New Zealand financial system has performed very well. It would be overstating the evidence to attribute that success wholly to our regulatory regime, but neither is there any evidence at all suggesting our regime produces worse outcomes than those in other countries.

The regulatory system needs to be constantly tested. The performance of our regime will come under particularly intensive scrutiny later this year, when New Zealand undergoes a Financial Sector Assessment Programme ("FSAP"). We will gain some important insight from the FSAP into these issues of soundness and efficiency, and into possible regulatory contributions to those objectives. We will, of course, be open to advice from experts, and that advice will be influential in our ongoing assessment of the most appropriate regime for the New Zealand financial system now and in the future.

Extract from an address to the Property Council of New Zealand

An address by Dr Alan Bollard, Governor, Reserve Bank of New Zealand

I'd like now to consider in more detail the New Zealand housing market, it being one of the factors behind our strong domestic economy, at a time when many exporters have seen their incomes retreat in recent months.

New Zealand's housing sector has experienced a strong cyclical upswing over the past 18 months. It's not just Auckland. Sales growth and rising house prices are prevalent in many parts of New Zealand. Building consents are at cyclically high levels. That's both including and excluding apartments.

Residential investment is expanding the nation's housing stock rapidly, yet demand continues to outstrip supply. We see this in rising prices and a shortage of properties listed for sale. The median time it takes to sell a house currently sits at an unprecedented low of just 26 days. As a consequence, recently house prices have been rising rapidly.

What's driving this? The answer is demand exceeds supply. Demographics are part of the story. New Zealand has had rapid population growth in recent years, driven by net immigration. This includes not just people coming here but people here choosing not to leave. The longstanding drift of New Zealanders north and into town is also a factor. In addition, social changes are seeing the average number of persons per home reduce. Life-style changes are increasing demand for new kinds of accommodation, such as inner-city apartments and coastal and lakeside properties.

Some of these factors have been at work for a long time. Even in the late 1990s, when population growth was relatively weak, there was substantial construction activity. However, more recently population growth has been marked. The natural increase in population currently is slower than a decade ago, but recent immigration has been very strong. In terms of permanent and long-term migration we had a net outflow of 10,000 persons per year in early 2001 and a net inflow of more than 40,000 per year in mid-2003. That too undersells the story. In addition, we have short-term stays, such as students and those on work permits, and those who apply for residency once they are here. Total migration has

been running at more than 60,000 persons per annum over the past two years. This is well in excess of the mid-1990s. Of course, more people means more demand for accommodation.

Is there more to this story? Yes, we think so. In part the demand for housing reflects the fact that people with savings to invest have become disenchanted with the share market and other financial instruments. Savers still remember the 1987 share market crash and more recent tumbles in the US and Europe. As well, savers have seen global interest rates fall to historic lows and headlines of pension funds losing money. At the same time property markets have stayed uncharacteristically buoyant and so there's been a flight to "bricks and mortar".

The proportion of the housing stock owned as rental property has been rising over recent years. Increasing numbers of people prefer to hold wealth in housing assets, as opposed to other investments.¹ Property investment has been rising over the past year.

Of course this isn't all bad. If lifestyles are changing and housing needs are changing and if aggregate demand is up because more people live here, then we want more house construction. If supply meets demand without bottlenecks that's good.

There are, however, some initial signs that housing market activity and expectations of future activity are starting to exceed demand as indicated by demographic fundamentals. Credit demand has accelerated over the last year. Borrowing has begun to accelerate. Debt-to-income ratios, which began to level out in the late 1990s, are starting to rise again.

People working in real estate and financial planning indicate a marked increase in the numbers of would-be investors. The newspapers are running advertisements for seminars offering to coach people on how to invest in property, often promising significant returns.

¹ Census and Household Expenditure Survey

I am concerned, as I said at the release of the Reserve Bank's *Monetary Policy Statement* last week, that this could end in disappointment, especially for unsophisticated investors who are rushing to get on the housing-investment bandwagon.

My worry is what if things reverse and supply exceeds demand? What if recent buyers, heavily in debt, find that rents have fallen, making outgoings more than incomings? What if they decide to exit property and then can't sell at prices paid a few months earlier?

How could supply exceed demand? We think that net immigration is likely to ease a little over the next two years. Partly that will reflect Government policy. Also the number of New Zealanders who want to begin their OE may go up again, as the economies of other advanced countries do better relative to ours.

As other investments like equities regain their gloss the person who has bought a house to sell it to another buyer may find that the next prospective buyer has put his or her money elsewhere. When pension funds prosper again, that too will have the same effect.

To those who say "Hold on, nothing is as safe as houses," I would say separate nominal from real house prices. Real house prices are what matters. In our recent past there have been extended periods where real house prices have dropped, as illustrated.

In the past, price falls were often concealed by high inflation. Also, as the graph confirms, when property prices really skyrocket real property-price deflation often follows soon after. Rising house prices and, by inference, increasing rents are by no means a certainty. As some New Zealanders found in the 1970s, the late 1980s and to a lesser degree in the late 1990s house prices can fall in real terms.

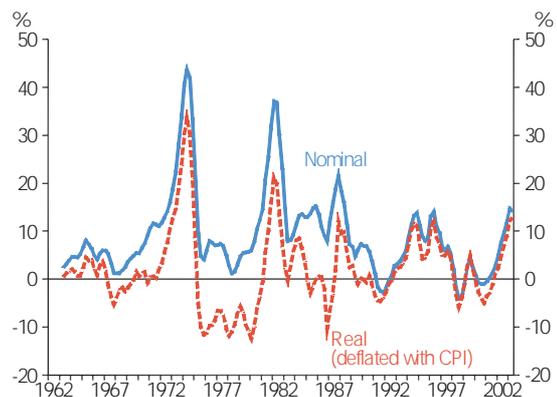
Other countries, such as the UK, have experienced even more pronounced weakness in their housing markets at stages over the last 20 years. Prudent property investors need to ensure their ability to withstand falling prices and rents at some time in the future.

People thinking of borrowing to buy a rental property should also factor monetary policy into their calculations. If inflation starts to gain momentum in New Zealand, interest rates, nominal and real, will have to be higher to keep that inflation

in check. Prospective buyers should ask "Could my gearing face that – would I stay above water come higher interest rates?"

To conclude, why as a central banker should I care about any of this? The narrow answer is that a stretched housing market contributes to inflation. However, the wider answer is that the stability of the New Zealand economy and the security of New Zealand households are linked in terms of risk concentration. For the wider economic interest and for New Zealand households, spreading risk needs to be a higher priority.

House prices and inflation
(annual percentage changes)



RESERVE BANK DISCUSSION PAPERS

This section sets out the abstracts of recently issued Reserve Bank Discussion Papers. The Discussion Papers are available on the Reserve Bank web site and can be obtained in hard copy on request from the Reserve Bank.

DP 2003/07

Estimates of time-varying term premia for New Zealand and Australia

Matthew Shapiro

Forward rates in the money market are systematically higher than realised spot rates, reflecting an unobservable term premium. This paper uses a Kalman filter specification to produce time-varying estimates of the term premia in New Zealand and Australia. Three time series specifications are used to examine the properties of the premia, such as the average size, volatility, and the degree of mean reversion.

Compared to the constant term premia estimates, the time-varying estimates explain significantly more of the difference between forward and spot rates. The results suggest that the premium in New Zealand is slowly mean-reverting, while the Australian premium reverts quickly to the mean.

It is not clear whether the method of monetary policy implementation affects the term premium, although in New Zealand the premium has been smaller and less variable since the introduction of the Official Cash Rate in March 1999. A related finding is that the size of the term premium is correlated with the volatility of short-term rates.

DP 2003/06

Has the rate of economic growth changed?

Evidence and lessons for public policy

Michael Gordon

New Zealand's recent rate of economic growth has remained strong despite a worldwide recession. Policymakers, the press, and the public have nonetheless been concerned that New Zealand's economic performance has lagged along some important dimensions. This paper presents some new estimates of the rate of technological change in New Zealand and compares them to similar measures for the United States and elsewhere. New Zealand has not participated in the increased pace of technological progress seen elsewhere since the mid-1990s. Technological change creates sustainable increases in income and wages. Hence, it should be an important focus of policy discussions surrounding economic growth. The paper also addresses how public policy should take into account technological change, especially given uncertainty about future prospects for its growth and the difficulties of public policy in changing its growth.

For the record: recent news releases

Reserve Bank Head of Operations appointed

24 June 2003

The Reserve Bank today announced the appointment of Mr Murray Bain as the Bank's Assistant Governor and Head of Operations.

As Head of Operations, Mr Bain will have a general management function across the Bank, with particular responsibility for the Bank's financial, corporate, commercial and other internal functions.

Mr Bain comes to the Bank with an extensive background in general management and the banking and financial sectors. This includes working for Trust Bank, the Wool Board, Industry New Zealand and ACC.

Mr Bain takes up his appointment on 11 August 2003.

RBNZ Deputy Governor appointed

22 July 2003

The Reserve Bank today announced that the Head of the Bank's Financial Stability Department, Mr Adrian Orr, has been appointed the Bank's Deputy Governor and Deputy Chief Executive. As required by statute, the appointment was made by the Bank's Board of Directors on the Governor's recommendation.

The post of Deputy Governor does not confer a specific day-to-day operational role. However, the Deputy Chief Executive is the designated person to stand in when the Governor is overseas or otherwise unavailable. The appointment completes a series of changes to the Bank's Management structure, which is laid out below.

RBNZ focusing on banking supervision in NZ

25 July 2003

The Reserve Bank is signalling its intention to put more effort into its role as supervisor of banks in New Zealand, given the increasing integration of the New Zealand and Australian financial systems facilitated by technology.

Speaking to a paper presented to the Finance Sector Ombudsman Conference in Wellington, Dr Bollard said "The Reserve Bank is keen to ensure that our regulatory system (for banks) is invigorated and focused."

Dr Bollard described the policy areas that the Reserve Bank was now focusing on as including "an assessment of the quantity and quality of capital for New Zealand banks that would be appropriate given their risk profiles."

"We are implementing our local incorporation policy, under which systemically important banks will be required to be incorporated in New Zealand ... Currently, only one systemically important bank in New Zealand is not locally incorporated, and we are working with that bank to deal with the issue appropriately."

Dr Bollard said the Reserve Bank was also working on ways to rapidly get a failed bank operating again, saying one option was "recapitalising a failed bank using creditors' funds." He said the New Zealand financial system was very healthy, but increasing integration with the Australian financial system meant the Reserve Bank always needed to be alert for signs of financial stress both here and across the Tasman. Dr Bollard said this required the Reserve Bank to "evaluate the core bank functions necessary for a statutory manager to be able to operate the bank on a stand-alone basis in a distress situation, and how ... a New Zealand statutory manager will have jurisdictional reach over those functions."

Dr Bollard said the Reserve Bank was watching carefully the proposed sale of the National Bank. "We would expect there to be no material transfers of National Bank business into a branch form (of an overseas incorporated bank), and we would expect further discussions before any movement of technical capacity that reduced the (National) bank's ability to continue to operate on a stand-alone basis under New Zealand statutory management. We would also be looking at the adequacy of current risk-management requirements for systemically important banks in the context of any further aggregation of country risk."

The paper referred to can be viewed on the Bank's website at www.rbnz.govt.nz.

RBNZ Governor reminds local government of inflationary impacts

28 July 2003

Reserve Bank Governor Alan Bollard today reminded local government throughout New Zealand to think of the broader economic implications when putting up rates and other local body charges.

Speaking to the Local Government New Zealand conference in Queenstown, Dr Bollard said local body rates for households are set to go up by around 4.5 per cent over the year to March 2004.

“Increases like that can boost general inflation both directly and indirectly, especially if other people pass on these cost increases by in turn raising the prices of their goods and services. All other things equal, these sorts of price increases could require the Reserve Bank to tighten monetary policy, which in turn would hold back the tradable sector on which all local communities sooner or later depend. At a time when the domestic economy is still strong, especially in the construction and property sectors, local authorities should ensure that they are not unnecessarily adding to price pressures.”

Dr Bollard told the gathering that local bodies' incomes had been rising steadily in recent years.

“Growth in valuations and the rating base has ... brought with it significant growth in local authority revenues. Over the last four years annual growth in operating incomes for local authorities has been over 4 per cent and rising. Rates too have been growing at above the rate of inflation for most of the last decade.”

Dr Bollard said he acknowledged that local authorities were reinvesting in New Zealand's infrastructure, which the economy needed. However, he said “Even allowing for these adjustments, local authority rates have significantly outstripped the CPI over the last decade, rising at a time that other inflation has been falling. That has the potential to pass on cost increases throughout the economy generally.”

External monetary policy adviser appointed

12 August 2003

The Reserve Bank today announced the appointment of Mr Malcolm Bailey as one of the Bank's two part-time external monetary policy advisers.

This appointment replaces Dr Brent Layton, who has served in this capacity for two years. The Bank employs two external advisors on one year contracts with one possible renewal. The appointees take part in the provision of advice to the Governor that leads up to his setting the Official Cash Rate eight times a year. The other adviser is Ms Kerrin Vautier.

Mr Bailey is a dairy farmer from Feilding and a former President of Federated Farmers. He has also served as a trade ambassador for New Zealand and as a new economics graduate he worked at the Reserve Bank in the early 1980s.

Reserve Bank Governor Alan Bollard commented “The Reserve Bank employs these advisors to help ensure that the Bank is well-informed about developments in the New Zealand economy and to bring additional outside perspectives into our processes. From experience, these appointments do add significant value to the Bank by bringing in fresh ideas and viewpoints.”

Reserve Bank Amendment Act

14 August 2003

The third reading of the Reserve Bank of New Zealand Amendment Bill this afternoon means that the Reserve Bank's governance and financial system oversight arrangements are to change slightly.

The key governance change is that the Governor no longer chairs the Bank's Board of Directors, the chair being a non-executive director appointed by the non-executive directors. The reason for this change is that the previous arrangement created a potential conflict of interest, in that the Governor chaired the committee assessing his own performance, as noted in the monetary policy review conducted in 2001 by Professor Lars Svensson.

In addition, the Bank's Deputy Governor ceases to be a Board member, although the Governor remains a member. The

Board is required to issue an annual report assessing the Governor's and Bank's performance, as it has done in recent years.

The legislation, however, does not change the role of the Board of Directors and does not affect the role of the Governor in managing the Bank. The Board does not have executive authority over the Bank, its primary task being to monitor the performance of the Governor and the Bank on behalf of the Minister of Finance. The Governor continues to be responsible for all Bank decisions, including setting monetary policy.

Some technical changes are also made to the Bank's powers in relation to its financial stability role. Among these are enhanced restrictions on the use of the word "bank" and its derivatives, aimed at ensuring that non-bank financial institutions are not able to pass themselves off as registered banks and so mislead the public. There are a number of changes to bank registration and supervision requirements, including, for example, consent to significant ownership change.

The legislation also gives the Bank formal responsibility for overseeing the payment system and provides for finality of payments settled through designated payment systems.

A more detailed paper on the amending legislation can be viewed on the Reserve Bank's website.

RBNZ acquires shares in BIS

19 August 2003

The Reserve Bank of New Zealand today announced that as of last week it has taken up an offer to become a shareholder in the Bank for International Settlements (BIS).

The BIS is an international financial institution based in Switzerland. It is owned by about 50 central banks and provides a range of financial services to central banks, international financial institutions and governments.

The cost of the BIS shareholding is approximately NZ\$100 million, which has been raised from the Reserve Bank's balance sheet. In addition, the Bank has hedged the exchange rate risk on the investment.

The benefits to both the Reserve Bank and New Zealand include increased access to foreign currency funding, which in a crisis could enhance the Bank's capabilities to intervene in markets to maintain stability. Being a BIS shareholder also more generally strengthens the Reserve Bank's connections with the international central banking community, which in a period of financial stress could be very useful.

Reserve Bank Governor Alan Bollard commented " We have carefully reviewed the net benefits from being a shareholder in the BIS and concluded that it is in the Bank's and the national interest, in terms of both access to BIS financial services and the return on the shares."

RBNZ MPS/OCR dates for 2004

26 August 2003

The following is the Reserve Bank's schedule for the release of its quarterly Monetary Policy Statements and Official Cash Rate announcements for 2004. Each Monetary Policy Statement includes within it an OCR announcement, so, as usual, in total there will be eight OCR announcements during 2004. The announcement will be made at 9.00 am on the day concerned.

29 January	OCR announcement
11 March	Monetary Policy Statement
29 April	OCR announcement
10 June	Monetary Policy Statement
29 July	OCR announcement
9 September	Monetary Policy Statement
28 October	OCR announcement
9 December	Monetary Policy Statement

The Reserve Bank reserves the right to make changes to this schedule, if required due to unexpected developments. In that unlikely event, the markets and the media will be given as much warning as possible.

RBNZ Board chair elected

18 September 2003

The Reserve Bank's Board of Directors has today elected Dr Arthur Grimes as its chair.

This follows the recent passage of the Reserve Bank of New Zealand Amendment Act 2003 which requires that the Bank's chair be a non-executive director. Previously the Governor chaired the Board.

The Board also elected Mrs Alison Paterson as the Board's Deputy Chair.

The Board's primary function is to monitor the performance of the Governor and the Bank, on behalf of the Minister of Finance. At the time of the Independent Review of the Operation of Monetary Policy it was recognised that, given the Board's role, having the Governor as chair potentially created a conflict of interest. The 2003 Amendment Act did not alter the Reserve Bank's operational independence.

RESERVE BANK POLICY STATEMENTS

The letters reproduced below were sent to registered banks and have been placed on the Reserve Bank website.

Letter to CEOs of all registered banks: Reserve Bank of New Zealand's powers and policy position regarding changes of bank ownership

7 July 2003

As you know, Lloyds TSB is considering selling the National Bank of New Zealand (NBNZ). This note is to clarify the application of the RBNZ's local incorporation policy in this context, and the RBNZ's powers and policy position regarding changes of bank ownership in general.

The RBNZ's policies regarding bank registration and supervision are motivated by considerations of soundness and efficiency in the financial system, and the avoidance of significant damage to the financial system that could result from the failure of a registered bank. The treatment of competition issues arising from any proposed sale are the responsibility primarily of the Commerce Commission.

Local incorporation policy

Given the systemic importance of NBNZ and the RBNZ's local incorporation policy, under any sale scenario it is our expectation that the business undertakings of NBNZ will remain on the balance sheet of a locally incorporated entity - i.e. that there will be no material transfers of NBNZ business into a branch of an overseas incorporated bank.

Reserve Bank powers regarding changes of ownership

Under the current Reserve Bank Act, changes of bank ownership per se are not subject to approval by the RBNZ on a case-by-case basis. However, we may impose conditions of registration on a registered bank (subject to consultation), in the event of a material change in its status. We may also recommend the deregistration of the bank, in the event that its standing is materially damaged as a result of a change in ownership. Prospective purchasers of an interest in a bank are encouraged to approach us at an early stage to discuss their plans and any implications those plans might have for the continued registration of the bank.

The passage of the RBNZ Amendment Bill will add to our powers in this regard. Prospective purchasers of 10% or more of a registered bank will be required to obtain the RBNZ's written consent to the transaction, and we will have the power to impose conditions of consent at that point. We are currently developing our policy on this matter and will release it in draft to the banking industry for comment later this year.

In the context of the proposed sale of NBNZ, some scenarios are worth elaborating upon. In particular, there has been public speculation about our attitude to sale scenarios in which a systemically important bank is purchased by the parent of one of the other large banks in New Zealand. This would roughly double the size of that group's operations in New Zealand, and result in all systemically important banks being owned by Australian parent banks.

At this stage, given current business practices in the New Zealand banking industry, we see some increase in risk to the financial system associated with these sale scenarios, but probably nothing so significant as to justify interventions designed to prevent those sales occurring. Having said that, the possible increase in systemic risk might well be large enough, in our view, to warrant commensurately stronger risk-management practices.

As part of the RBNZ's policy work programme, we are exploring more generally the merits of enhanced risk-management requirements for systemically important banks. This work includes consideration of measures such as higher capital, stronger business continuity planning, and increased assurance of systemically important banks' ability to continue to operate on a stand-alone basis under statutory management (including assurance that a New Zealand statutory manager will have jurisdictional reach over all functions core to the bank's viability). Also, in the light of the already-high level of ownership of New Zealand banks by Australian parent banks, we are working with the Australian authorities to explore the areas where greater trans-Tasman cooperation in banking regulation and failure management would make sense. Finally, it is not out of the question that specific restrictions on industry structure or

concentration could one day be contemplated, were systemic risk to rise to levels justifying such restrictions.

All of this work will shed further light on the more specific issue of the implications for systemic risk of banking industry concentration and exposure concentrations to bank capital sourced from particular overseas regions. At this stage, we have not reached any firm conclusions, and considerable further exploration will be necessary before we can do so. We will, of course, consult fully before making any changes to current policies.

**Letter to CEOs of all registered banks:
update on Reserve Bank of New
Zealand's position regarding the new
Basel Capital Accord**

25 July 2003

As you will know, the Basel Committee on Banking Supervision recently issued its third consultative paper (CP3) on the proposed new Capital Accord ("Basel II"), for public comment. The broad thrust of CP3 is substantially the same as in the Committee's previous consultative papers, and the target for finalisation of the Accord remains the end of this year. The purpose of this letter is to give you an update on our thinking on how the new Accord might best be applied to New Zealand.

We previously wrote to all registered banks about Basel II on 11 December 2002. In that letter, we said that:

- * we propose to require NZ-incorporated banks to adopt the Standardised approach to measuring risk-weighted assets under Pillar 1;
- * we have strong reservations about the intensive supervisor validation of banks' risk management under Pillar 2; and
- * subject to some concern about "information overload", we support the principles embodied in Pillar 3.

Since that letter, we have received a number of comments from banks and have discussed the issues raised. We have carefully considered the points made, but so far, our intended approach has not changed. In assessing the merits of Basel II for New Zealand, we have sought to apply the basic principles of our supervision regime: that the level and quality

of capital that banks need to hold for times of stress should be conservative; that capital adequacy rules for all banks should be simple and uniform to the greatest extent possible; and that bank directors and senior management should face appropriate incentives to manage their bank's risks effectively. We believe, at this stage, that a combination of the Standardised approach and the incentives that we already place on directors is likely to be most suitable for New Zealand.

Exactly how new capital rules will be implemented in national jurisdictions to account for cross-border banking remains an open question in the Basel II process. This issue is germane to New Zealand given the importance to our banking system of banks owned by foreign parent banks. Although we remain reasonably firmly committed to the general approach outlined above, our implementation strategy may depend significantly upon the guidance that will eventually be provided in this area by the Basel Committee, and on the approaches taken by relevant foreign regulators. The strategy will, of course, be subject to normal consultation with the industry. During that process, we will be interested in knowing (among other things) the quantitative impact of our proposals on the industry, given other regulators' intended approaches.

Finally, I should note that some related policy development work we are currently doing on broader prudential supervision issues may have a bearing on our thinking about capital requirements. These issues include the appropriate quantity and quality of capital for New Zealand banks, given the increasing concentration in the industry and the evolution of systemic risk. Also, we are working on improving our ability to manage bank distress, including assessing the core functional and legal requirements for systemically important banks to be able to continue to operate on a stand-alone basis under statutory management. This work is still at the exploratory stage, but will be important background to our thinking regarding the capital adequacy and risk management aspects of Basel II.

Publications

Many Reserve Bank publications are available for download free of charge from the Reserve Bank website, www.rbnz.govt.nz

Publications - no charge

ANNUAL REPORT

Published in October of each year

MONETARY POLICY STATEMENT

Published quarterly. A statement from the Bank on the conduct of monetary policy. First copy free, subsequent copies \$12.00.

THE REAL STORY - SAVING AND INVESTING NOW THAT INFLATION IS UNDER CONTROL

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Leslie Hull
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- DP2002/07 Currency unions and gravity models revisited
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- DP2002/08 Currency unions and Trade: Variations on Themes by Rose and Persson
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Olivier Basdevant
- DP2003/03 Modelling structural change: the case of New Zealand
Olivier Basdevant and David Hargreaves
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Alfred A Haug, Özer Karagedikli and Satish Ranchhod
- DP2003/05 Learning process and rational expectations: an analysis using a small macroeconomic model for New Zealand
Olivier Basdevant
- DP2003/06 Estimates of time-varying term premia for New Zealand and Australia
Matthew Shapiro
- DP2003/07 Has the rate of economic growth changed? Evidence and lessons for public policy
Michael Gordon

Full lists of Discussion Paper series are available from Administration, Economics Department. Lists of the Working Papers and the Research Notes can also be obtained from the Economics Department.

Pamphlets

Available from the Knowledge Centre

Explaining Currency - New Zealand's bank notes and coins

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Monetary Policy over the Business Cycle

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Knowledge Services Group

Reserve Bank of New Zealand

2 The Terrace

P O Box 2498

WELLINGTON

Phone (04) 4722-029

Articles and speeches in recent issues of the Reserve Bank Bulletin

Vol 65, No. 2, June 2002

Articles

The role of the Reserve Bank's macro model in the formation of interest rate projections
Corporate governance in the financial sector
Developments in the New Zealand banking industry
Developments in credit markets over two decades

Vol 65, No. 3, September 2002

Articles

An optimal inflation target for New Zealand: lessons from the literature
Recent developments in New Zealand's financial stability
Strengthening market disciplines in the financial sector
Results of Bulletin readers' survey

Vol 65, No. 4, December 2002

Articles

The Reserve Bank's forecasting performance
Managing New Zealand's foreign reserves
Corporate behaviour and the balance of payments

Speech

The evolution of monetary policy in New Zealand

Vol 66, No. 1, March 2003

Articles

The output gap and its role in monetary policy decision-making
Financial sector assessment programme
Recent developments in the payment system
Introducing overnight indexed swaps
The legal history of money in New Zealand

Speech

Making sense of a rising exchange rate

Vol 66, No. 2, June 2003

Developments in the New Zealand banking industry
Financial intermediation beyond the banks: recent developments
Monetary policy communication and uncertainty

Speech

Corporate governance in the financial sector