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Contents

Editor's Note	3
Articles	
Impact of the exchange rate on export volumes <i>Mark Smith, Economics Department</i>	5
The Reserve Bank of New Zealand Amendment Act 2003 <i>James Twaddle, Financial Stability Department</i>	14
Designation of payment systems - new Part VC of the Reserve Bank of New Zealand Act 1989 <i>Loretta DeSourdy, Financial Stability Department</i>	21
Speeches	
Asset prices and monetary policy <i>Alan Bollard, Governor, Reserve Bank of New Zealand</i>	27
For the record	
Discussion Papers	35
Recent news releases	36
Publications	42
Articles and speeches in recent issues of the Reserve Bank of New Zealand Bulletin	43

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Editor's Note

The Reserve Bank of New Zealand Amendment Act 2003 came into force in August 2003. It introduced a number of changes, including to the Reserve Bank's governance framework, banking supervision and payment system oversight. This quarter's *Bulletin* looks closely at aspects of the amended Act.

The first article, however, is on a different topic and reviews our understanding of how export volumes are influenced by the exchange rate and other factors. It argues that, according to recent analysis, the real trade-weighted exchange rate has a small but not insignificant effect on export volumes, and that export sectors respond differently to the same exchange rate movement. Volumes of services, including tourism, are found to be more exchange-rate sensitive than export volumes from the agricultural sector.

The second article looks at the main features of the Reserve Bank of New Zealand Amendment Act 2003. This Act alters several aspects of the Bank's operations. Changes fall into three broad categories. The first is governance, and under the amendment the Governor is no longer the chair of the Reserve Bank Board, deputy governors are no longer members, and the Board is required to publish an annual report with their assessment of the performance of the Governor.

The second main aspect of the changes relate to banking supervision, recognising the need to continue to evolve the approach of the Bank to meet the changing environment. Under the amended Act, the restrictions on the use of the word 'bank' have been tightened, the Reserve Bank must give its approval for any significant changes in bank ownership, and crisis management powers are streamlined. The amended Act also formalises the Reserve Bank's responsibility for payment systems by giving the Reserve Bank authority to obtain, publish and audit information on payment systems, and gives the Reserve Bank power to designate payment systems.

This last aspect is considered in more detail in the third article of this *Bulletin*. This article looks at the new powers under Part VC of the Act, which provides for the designation of payment systems by Order in Council for the purpose of providing greater legal certainty to payments executed through designated payment systems.

We conclude this issue of the *Bulletin* with a speech by the Governor of the Reserve Bank, Alan Bollard, and our usual listings of recent publications, media releases, and discussion paper abstracts.

Geof Mortlock

Editor

Reserve Bank of New Zealand Bulletin

Reserve Bank of New Zealand

P O Box 2498

Wellington 6001

New Zealand

Telephone 64 4 471 3949

Facsimile 64 4 471 3800

Articles

Impact of the exchange rate on export volumes

Mark Smith, *Economics Department*

This article reviews our understanding of how export volumes (as opposed to export values) are influenced by the exchange rate and other factors. Recent analysis finds that the real TWI exchange rate has a sizeable effect on export volumes; the low measured elasticity of export volumes needs to be considered in light of the large cyclical movements in the TWI exchange rate. We also find that export sectors respond differently to the same exchange rate movement, with exports of services volumes (which include tourism) more exchange rate sensitive than export volumes from the agricultural sector.

1 Introduction

As a small and open economy New Zealand is significantly affected by external influences. A modelling approach is often taken in examining the effects of these influences on the New Zealand business cycle.¹ These external influences include world demand, the terms of trade, migration flows, and the exchange rate.

With our exchange rate exhibiting fairly substantial cycles and with it being currently near its previous cyclical peak it is important to understand how the exchange rate will affect the future path of the economy. This article examines how New Zealand export volumes are affected by changes in the exchange rate.

Section 2 begins with a review of the factors that influence New Zealand's exports. Section 3 then discusses empirical analysis that quantifies the effect of the exchange rate on export volumes - at both aggregate and sectoral levels. We discuss limitations of the empirical work in section 4, but also suggest reasons why these results make sense. Section 5 concludes.

2 Influences on export volumes: the exchange rate and other factors

The quantities of exports that are supplied and demanded are influenced by a variety of factors (see figure 1 for a summary of the supply and demand side influences). All else being equal, the more goods and services will be produced for export the higher the real return on exporting, relative to returns from other uses for the resources used in exporting.

The exchange rate influences both the supply of and demand for export volumes. However, as many of our exports are priced in foreign currencies, changes in the New Zealand dollar exchange rate do not automatically affect the demand for our exports. Also, some firms may have the ability to charge 'different' prices to the norm. This is usually associated with the degree to which a product is differentiated from other products. For example, exporters serving niche markets may be able keep their prices in New Zealand dollars relatively constant, despite a rise in the exchange rate, and face little change in demand. In contrast, dairy products and most agricultural commodities are comparatively undifferentiated, and their prices are determined in world markets.

In the short term, physical constraints (such as inputs of capital and labour) and pre-arranged contractual obligations affect the ability of exporters to respond to price changes and changes in demand conditions. For many agricultural exports, climatic conditions are a major determinant of supply in the short run: both droughts and floods can materially

¹ Black et al (1997) explain how the economy is modelled in the Reserve Bank's macroeconomic model, the Forecasting and Policy System (FPS). Gardiner et al (2003) contrasts FPS with the New Zealand Treasury model (NZTM).

affect production. Over a longer period of time these constraints are less binding, with producers having greater scope to adjust both the quantities of capital and labour used, and the way in which those quantities are combined (hence affecting productivity). However, even in the long run there are still constraints that affect the capacity to supply, such as finite quantities of land and, in the agricultural sector, biological constraints.

An alternative to exporting is to produce more goods and services for consumption in the domestic market. However, given New Zealand's comparatively small size there is limited scope for local producers to divert production away from exporting.

The demand for New Zealand's exports is governed by the market size for our products (influenced by foreign income and population growth) and how well we can compete in world markets. Foreign demand is also a major determinant of the overseas price for most of New Zealand's exports, such as agricultural produce and commodity manufactures. Changes to international supply conditions and consumer preferences also have an influence on the world price of our exports.²

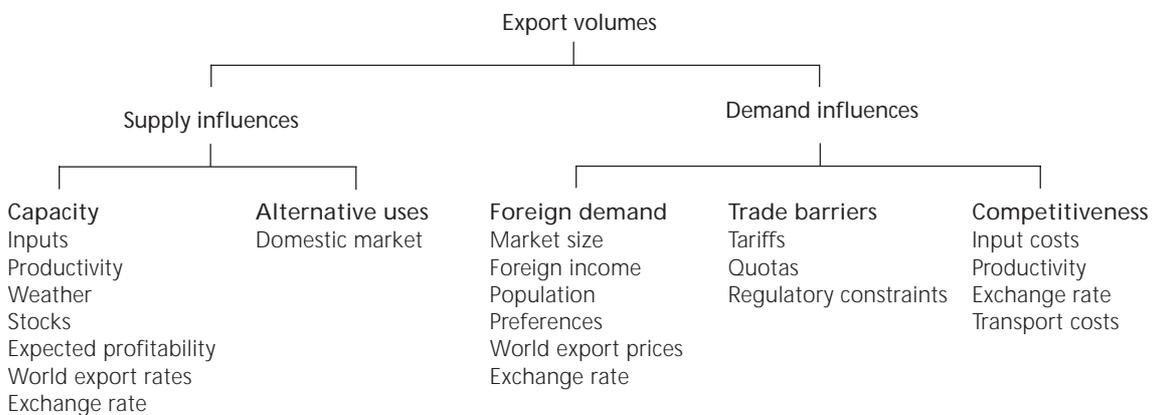
Access to markets is also important, particularly in the agricultural sector. Tariffs, quotas and other trade protection

measures can significantly affect the quantity of exports that New Zealand can sell.

Differences in production, promotional, and transportation costs relative to those of other suppliers affect the competitiveness of New Zealand's exporting sector. Since New Zealand is geographically remote from many of its export markets, exporters need to be particularly clever and efficient to offset this disadvantage.

A useful summary measure of our competitiveness is the real exchange rate, which is basically the nominal exchange rate multiplied by the ratio of local and foreign prices. In effect, the real exchange rate is the price of goods and services relative to the price in other countries.³ Hence a rise in our real exchange rate means our products are more expensive compared to those sold overseas, and are therefore less competitive. An appreciation of the New Zealand dollar, other things remaining the same, will lift our real exchange rate, thereby lowering competitiveness and eventually affecting export volumes. A rise in the exchange rate will also affect exporters' returns, making exporting from New Zealand less profitable, and this too will affect volumes if firms cut back on, or even stop, exporting.

Figure 1
Factors affecting export volumes



² If insufficient global supply is available, higher world prices will eventually result in increased supply.

³ There are in fact a wide range of real exchange rate measures including those based on relative producer prices, consumer prices, wages, and unit labour costs. The real TWI exchange rate used in FPS is based on relative GDP deflators.

3 Quantifying the exchange rate impact on export volumes

In this section we discuss recent work at the Reserve Bank aimed at quantifying the impact of the real exchange rate on export volumes. We look at the speed and magnitude of export volume responsiveness to the real TWI, and in some sectors, to changes in real bilateral exchange rates. We also use an alternative approach, looking at how export volumes change in response to 'domestic export prices', rather than to changes in the real exchange rate. Domestic export prices are the prices that exporters receive in New Zealand dollars and therefore they incorporate the effects of changes in the nominal exchange rate. Appendix 1 provides technical details on the approach used as well as a summary table of results.

There are several complications involved in identifying the effect of the real exchange rate effect on export volumes. First, we have to distinguish the impact of the real exchange rate from the impact of other determinants of export volumes. Secondly, volatility in export volumes makes it difficult for econometric estimates to fully capture the effect of the exchange rate. In other words, the shocks that hit export volumes make it difficult to detect the systemic variation in export volumes that is due to the exchange rate. Thirdly, there are always some doubts as to how accurate the export volume measures themselves are. Determining export volumes requires either reliable volume indicators, or accurate deflators with which to adjust nominal values. It is possible that the errors relating to volume measures, particularly for services, may be large enough to prevent us from accurately identifying any changes in volumes due to exchange rate movements.

Export volume trends

In addition to analysing the effects of the real exchange rate on aggregate exports, we have also looked at the effects of the real exchange rate on different export groups. We used two levels of disaggregation based on data from the national accounts, with export volumes for these groupings portrayed in figures 2 and 3.

Figure 2
Export volumes - primary/non-primary split
(share of total March 2003 year exports in brackets)

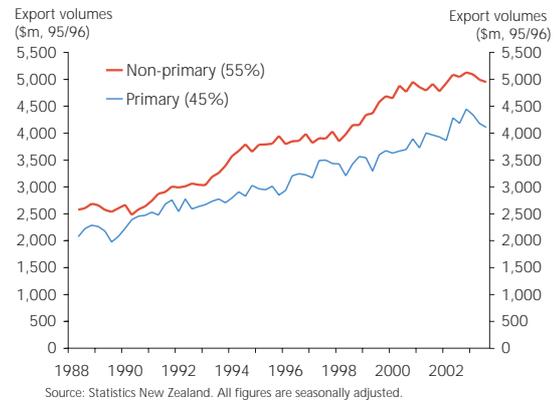
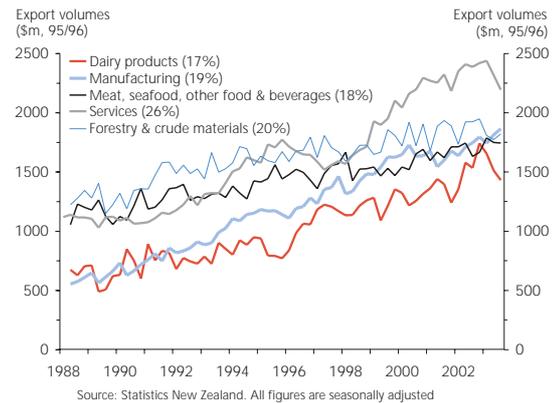


Figure 3
Export volumes - broad sector split
(share of total March 2003 year exports in brackets)



Over the last fifteen years or so growth in non-primary export volumes (particularly manufacturing export volumes) has generally been faster than growth in primary based export volumes. Within the broad primary category, volume growth from forestry (excluding crude materials) and dairy has been considerably higher than growth from meat and seafood (figure 4).

A straightforward way to examine the relationship between the exchange rate and export volumes in different sectors is to look at cross-correlations. These indicate the degree to which the exchange rate and export volumes have moved together over time but only provide a partial analysis as they do not take into account the other possible influences on export volumes.

Figure 4
Average annual export volume growth (1988 - 2003 March years) (numbers represent share of total exports for March 2003 year)

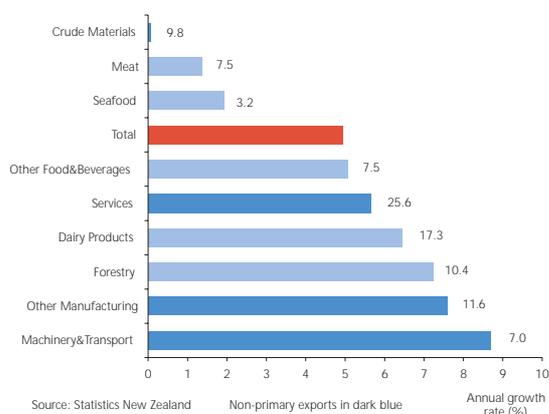
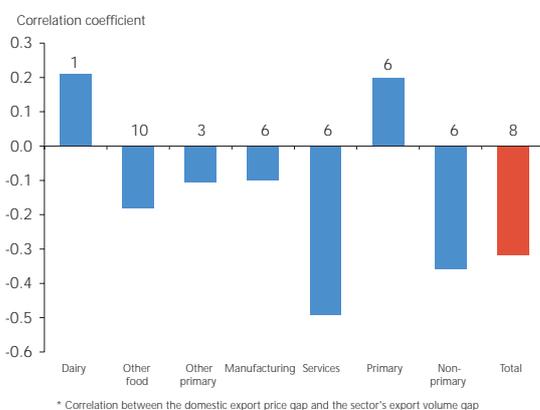


Figure 5 shows, for a number of sector categories, the correlation between the real TWI exchange rate gap and export volume gap.⁴ For each sector, the chart shows the highest correlation between the export volume gap and the exchange gap, and the lag at which that correlation occurs. For example, for manufacturing, the highest correlation occurs when the exchange rate gap is lagged six quarters, with the value of the correlation being -0.1. This suggests that after an exchange rate change, the maximum effect occurs six quarters later.

Figure 5
Correlations between the real TWI gap and the export volume gap (1990-2001Q3. Numbers indicate the quarter lag with highest correlation.)



⁴ See appendix 1 for further details on how the gap variables are derived; in general, the gap is the difference between a variable's actual value and its trend value.

Most of the correlations graphed are negative, indicating that above-trend real exchange rates tend to correspond with future below-trend export volumes. The largest negative correlation was for the exports of services, with a correlation coefficient of around -0.5.

The correlation shown for the primary sector is different. It shows the correlation between the gap in domestic export prices for total merchandise exports and the gap in primary sector volumes. Given that domestic export prices are inversely related to the exchange rate, the positive correlation shown in the chart suggests that, as for most of the other sectors, a rise in the exchange rate tends to be followed by a fall in export volumes.

Results

In the following sections we discuss the empirical results, beginning with the sensitivity of export volumes to the exchange rate. Then we discuss the importance of other influences, and insights from our business contacts.

Exchange rate sensitivity: aggregate exports

Results for aggregate exports suggest a marginally higher degree of sensitivity of export volumes to the real exchange rate than previously estimated at the Bank. While the export volume elasticity is still comparatively small this implies a fairly sizeable impact on volumes given the large cyclical movements observed in the exchange rate.⁵

Our results indicate that if the level of the real TWI were to rise by 10 per cent relative to its medium-term equilibrium this would result in export volumes being 1.4 per cent lower relative to their trend after 18 months. The lag at which the peak effect takes place - 18 months - is consistent with previous Reserve Bank findings.

⁵ The New Zealand official nominal TWI has moved in a fairly wide range (46 to 69 during 1990-2003) with trough to peak movements in excess of 40 per cent. Real TWI exchange rate movements are similar to those of the nominal TWI.

Lower domestic export prices (which may result from a higher exchange rate) are also found to lower future aggregate export volumes by approximately the same magnitude and with a lag of 18 months.

The updated estimates also suggest that the real exchange rate accounts for only a relatively small portion (less than 20 per cent) of the total cyclical variation in aggregate export volumes.⁶

Exchange rate sensitivity: export sectors

Although a high exchange rate tends to dampen total export volumes, the impact is unevenly spread across sectors. Non-primary export volumes tend to react more significantly to the real exchange rate than primary exports. This largely reflects the higher degree of exchange rate responsiveness of exports of services volumes, which are approximately three times more sensitive to the real exchange rate than aggregate export volumes.

The lags with which the real exchange rate affects volumes differ by sector. Exports of services volumes respond to the real exchange rate with a lag of 18 months. However, it only takes about a year for the real exchange rate to have an effect on most of our food export volumes. Manufacturing export volumes appear to respond to the real exchange rate with a lag of 12 to 15 months.

For most export sectors, the most relevant measure of the real exchange rate appears to be the real TWI. However, volumes for dairy exports were better explained by the real NZD/USD bilateral exchange rate. For manufacturing exports the real bilateral NZD/AUD and NZD/USD exchange rates were also influential.

Volume sensitivity to changes in domestic export prices, as opposed to changes in the real exchange rate, is more noticeable for primary exports, with volumes responding to New Zealand dollar export prices with a lag of 18 months.

The amount of variation in export volumes attributable to real exchange rate/domestic export price movements differs by sector. Movements in the real exchange rate explain the highest proportion of cyclical fluctuations in services, but

even here, more than three quarters of the cyclical variation in export volumes is attributable to other influences.

Other influences: world demand, world export prices, weather

Our analysis also looked at other drivers of export volumes. Although aggregate export volumes were sensitive to the global business cycle (i.e. to world growth), this is of a smaller magnitude than previously thought. It was found that an important demand variable for manufacturing export volumes was a weighted measure of real GDP in the US and Australia. In general, non-primary export volumes, such as exports of services, are more responsive to world demand conditions than primary exports.

Another finding was that higher overseas prices for exports have a delayed but positive effect on primary export volumes, with volumes responding with a lag of between two and four and a half years. Dry conditions boost some primary export volumes in the current quarter (as meat is processed and exported early), but this results in lower export volumes after about 18 months, reflecting the delayed effects of lower production.

Business contacts⁷

Discussions with our business contacts generally supported our findings. Feedback from exporters has suggested that when unit profitability is squeezed by a high exchange rate, many exporters will absorb lower current profitability in the expectation that the exporting environment will eventually improve. This reflects the general tendency of exporters to maintain their position in export markets in the short term, even at the cost of a fall in income, rather than exiting from the market and facing the problem of re-establishing a market presence after the exchange rate has gone down again. Moreover, as many export products are tailored for specific export markets, it is difficult to divert them to other export markets quickly.

⁶ See appendix 1.

⁷ This material draws on regular discussions with members of the business community held throughout the year. Every quarter Reserve Bank staff meet with around fifty businesses.

Our contacts also suggested that primary export volumes are generally slightly less sensitive to cyclical fluctuations in the real exchange rate than exports from sectors such as services and manufacturing. Contacts in the agricultural/horticultural industry agree that climate is an important short-term influence on export volumes and that capacity over the longer term tends to be influenced by expected profitability (of which world export prices are an important component). Manufacturing organisations confirm that the bilateral exchange rate with Australia and the health of the Australian economy are important influences on export activity. Contacts in the tourism industry are of the view that changes in world incomes will eventually flow through into tourist numbers.

4 Why not a higher export volume elasticity from the exchange rate?

The measured elasticity of export volumes to the exchange rate is comparatively small. However, since the early 1990s fairly large cycles have been observed in the real TWI exchange rate. High exchange rate periods (where the real exchange rate is above its long-term average) tend to follow low ones, with the duration of each part of the cycle lasting approximately three to four years (see figure 6). The impact on export volumes from a sustained appreciation of the exchange rate can be substantial, although volumes will be boosted when the exchange rate falls by a similar amount.

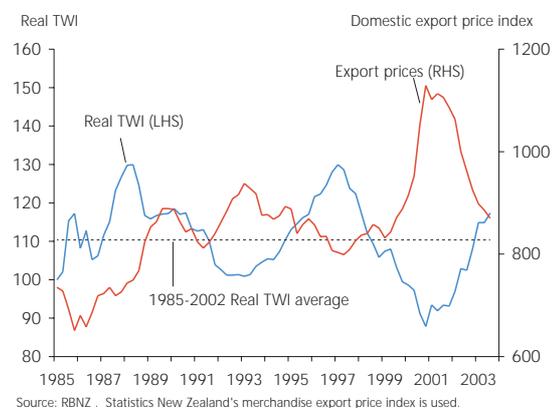
It might be argued that by relating the exchange rate gap to the export volume gap, we are not picking up the persistent effects of the exchange rate on the level of export volumes. Therefore, to get an idea of whether persistent effects occur, we looked at the level impact of the real exchange rate (rather than deviations from trend) on the level of export volumes. Results from levels-based estimates suggested only a marginally higher degree of export volume sensitivity to the real exchange rate.⁸

While we have identified some important drivers of export volumes in this analysis, there have been other important influences that we have been unable to account for. Accurate data on international trade restrictions, for example, is hard to find. Missing information on other key drivers of exports could be affecting our estimates of the effect of the exchange rate.

It seems likely that the biggest effect from changes in the exchange rate may not be on export volumes but on export receipts. Movements in the exchange rate will tend to feed through to domestic export prices and incomes rather than directly affecting volumes (figure 6). However, we need to remember that while a rising exchange rate will contribute towards lowering exporters' incomes, it will also lead to cheaper imports and boost the real incomes of other people within the economy.

Lastly, as referred to above, many of our exporters are supply-constrained in the short-term; they cannot significantly alter production plans, even if it is more profitable to do so. Similarly, pre-arranged supply agreements may also restrict the ability of firms to adjust production processes quickly. And, as noted earlier, there are non-recoverable set-up costs (e.g. promotional expenses) that could be lost if exporters decide to exit particular markets temporarily; these would be re-incurred if in future they decided to re-enter.

Figure 6
Real New Zealand TWI exchange rate and export prices



⁸ See appendix 1 for the estimation results.

5 Conclusion

Empirical investigation finds that the measured elasticity of New Zealand's aggregate export volumes to the real New Zealand dollar exchange rate is higher than previously assumed, but is still quite small. However, given the large amplitude of the New Zealand exchange rate cycle this implies quite a substantial impact on volumes. In the September 2003 MPS we incorporated this new evidence into the Bank's macroeconomic model (FPS)⁹

Sector evidence shows some variation, with exports of services volumes more sensitive to the real exchange rate than agriculturally-based export volumes. Other influences affecting New Zealand's export volumes depend on the sector, with agricultural exports responding to world export prices and climatic conditions, and exports of services responding more to world demand.

Our view is that the major effect on exporters from the exchange rate is primarily through its effects on incomes rather than export volumes. Ongoing research will attempt to improve our understanding of the how the exchange rate impacts on the economy.

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⁹ As outlined in box 2 (p 24) in our September 2003 *Monetary Policy Statement*. In FPS a persistent 10 percentage point appreciation in the real exchange rate compared to medium-term equilibrium leads to a 2.4 per cent fall in export volumes relative to trend (1.7 per cent previously), with the peak effect occurring after approximately 18 months.

Appendix 1

Deriving estimates of exchange rate sensitivity

The objective is to derive robust estimates of the sensitivity of export volumes to the real exchange rate. A number of 2SLS regressions are run for aggregate exports and export sectors.

To keep the specification consistent with the FPS framework a gaps-type equation is used:

$$GAP_{x,t} = a * ERGAP_{t-k} + b * Y_{t-k} + c * GAP_{t-k}$$

Sample 1990Q1 - 2001Q3

Instruments:

$$ERGAPATWI_{t-k}, Z_{t-k}, GAP_{t-k}$$

Where:

$GAP_{x,t}$ = relevant export sector volume gap ((= x actual/x trend - 1)*100)

$ERGAP_{t-k}$ = relevant lagged real exchange rate gap (Alternatively, a variety of domestic export price gaps (PXGAP), calculated from Statistics New Zealand's Overseas Trade Indexes are used)

Y_{t-k} = vector of other demand and supply-side explanatory variables.

GAP_{t-k} = MA/AR term

$ERGAPATWI_{t-k}$ = real Australian trade-weighted exchange rate gap

Z_{t-k} = vector of demand and supply-side instruments

A similar specification is also used to derive a levels-based model for export volumes.

For the correlation analysis and the gaps modelling of export volumes the variables are detrended using an HP-filter - otherwise actual values are used if shown to be stationary by way of an ADF unit root test.¹⁰ This was to prevent spurious correlations and wrong statistical inferences occurring.

Equations for export volumes using domestic currency export prices and the real exchange rate are derived separately; the

strong negative correlation between the two would bias equation estimates if both were included. To capture world/trading partner demand effects a range of proxies were examined, including OECD industrial production, an export-weighted US and Australian real GDP measure, the Reserve Bank's export-weighted measure of real GDP (GDP12), and a similarly derived world private consumption measure (C11). Other supply and demand influences were tested, with NIWA's soil moisture deficit variable used as to proxy climatic influences. World export prices for various commodity groupings were obtained from the ANZ Commodity and Economist commodity price indices.

The sample period for most estimates was determined in part by data availability, with sector estimates of export volumes being produced only since the late 1980s. The end part of the sample for the gaps estimation was trimmed to 2001q3 to address potential end-point problems from using an HP filter. Structural change (here and abroad) was another motivating factor behind choosing a relatively short sample. Due to the short sample period and the high volatility of exports, many of the equation residuals do not display white noise properties, with MA and AR terms added to minimise potential biases. To make allowance for endogeneity a 2SLS system was used, with the real Australian TWI being the principal exchange rate instrument.

Results

Estimates of the magnitude of response of export volumes to the real exchange rate (e.g. real TWI) and domestic export prices (PX) are summarised in table A1, along with 95 per cent confidence intervals around the coefficient estimates. The partial adjusted R² (PartR²) measures the portion of the total variance of export volumes explained by the real exchange rate/export price terms.

For the gaps model an aggregate coefficient of -0.14 on the sixth lag of the real TWI implies that a 10 percent rise of the real TWI relative to its medium-term equilibrium will reduce the level of export volumes by 1.4 percent relative to its trend after 6 quarters. For the levels model the aggregate coefficient of -0.21 implies that a 10 percent increase in the real TWI will lower the level of export volumes by 2.1 per cent, 18 months down the line. Estimates of the coefficients on the real exchange rate are significant at the 5 per cent level, apart from dairy exports and two NZD bilateral manufacturing export equations, where the real exchange rate is statistically significant at the 10 per cent level.

¹⁰ A smoothness parameter (lambda) of 1600 in the HP filter is used to derive most of the gaps, although the medium-term equilibrium real exchange rate used to compute the real TWI exchange rate gap is obtained from the FPS model.

Table A1
Summary of results

Aggregate exports	Exchange rate/domestic export price	Coefficient	Lag	PartR ² (qtr)	95% confidence interval		Other influences (quarter lag)
					Low	High	
<i>Gaps model</i>							
Total exports	TWlgap	-0.14	6	0.17	-0.08	-0.20	GDP12gap(-1)
Total exports	PXgap	0.14	6	0.05	0.05	0.23	C11gap(-1)
<i>Levels model</i>							
Total exports	TWI	-0.21	6	0.09	-0.12	-0.30	GDP12 (-1)
Total exports	PX	0.20	6	0.09	0.11	0.29	GDP12(-1)
Sector splits							
Split 1							
<i>Gaps model</i>							
Primary ¹	PXgap	0.19	6	0.10	0.01	0.36	C11gap(-1), climate (0,-6)
Non-primary ²	TWlgap	-0.24	6	0.17	-0.13	-0.36	GDP12gap(0)
<i>Levels model</i>							
Primary	PX	0.33	6	0.12	0.28	0.38	GDP12(-1)
Non-primary	TWI	-0.24	6	0.01	-0.13	-0.36	GDP12(-1)
Split 2							
<i>Gaps model</i>							
Other food ³	TWlgap	-0.15	4	0.08	-0.05	-0.24	World meat price gap(-12), GDP12gap (-1), climate (0)
Other primary ⁴	TWlgap	-0.21	3	0.20	-0.05	-0.37	World export price gap(-7), relative cyclical positions (-11)
Services	TWlgap	-0.37	6	0.24	-0.15	-0.59	C11gap(0)
<i>Levels model</i>							
Dairy	NZD/USD	-0.26	4	0.04	-0.04	-0.56	World dairy prices(-18), GDP12(-1)
Manufacturing	TWlulc ⁵	-0.41	4	0.06	-0.05	-0.77	US/Australian GDP(-2)
Manufacturing	NZD/USD	-0.08	5	0.05	0.00	-0.16	US/Australian GDP(-2)
Manufacturing	NZD/AUD	-0.15	4	0.04	0.02	-0.32	US/Australian GDP(-2)
Services	TWI	-0.67	6	0.05	-0.29	-1.05	GDP12(-1)

1 Forestry, dairy, meat, seafood, other food & beverages export categories from the national accounts

2 Manufacturing, services, crude materials export categories

3 Meat, seafood, food and beverages

4 Forestry, crude materials

5 Relative manufacturing unit labour cost trade weighted real exchange rate (RBNZ estimates)

The Reserve Bank of New Zealand

Amendment Act 2003

James Twaddle, Financial Stability Department

In August 2003, the Reserve Bank of New Zealand Amendment Act 2003 was enacted. The Amendment Act represents a continued evolution of the legislative framework in which the Reserve Bank operates. This article provides an overview of the main changes and the motivations behind them.

1 Introduction

The Reserve Bank of New Zealand Amendment Act 2003 amended the Reserve Bank of New Zealand Act 1989, the Act that sets out the Reserve Bank's functions and powers. The Amendment Act represents a continued evolution of New Zealand's central banking framework, with the main changes being to the Reserve Bank's banking supervision powers.

This article provides an overview of some of the more significant changes introduced by the Amendment Act and reviews the motivation behind them. Detailed discussion of the implications of the changes and how the Reserve Bank plans to use its new powers will be discussed in future *Bulletin* articles.

The next section of this article discusses the evolution of our approach to regulating and supervising banks, which has motivated some of the changes contained in the Amendment Act. The third section reviews the statutory changes relating to banking and payment systems. Finally, we review the changes to Reserve Bank governance arrangements.

2 Evolution of the Reserve Bank's approach to banking supervision

The main changes to the Reserve Bank Act relate to the Bank's powers to register and supervise banks. The amendments clarify and strengthen the Bank's supervisory powers in a range of areas, including requiring significant changes of bank ownership to be subject to the Bank's consent, widening the matters to which the Bank may have regard when considering the registration of a bank, and widening the

matters on which the Bank can require a registered bank to obtain an independent report.

These amendments represent a further evolution of the Reserve Bank's approach to the registration and supervision of banks. Under the Act, the Reserve Bank is directed to use its powers to register and supervise banks for the purposes of:

- promoting the maintenance of a sound and efficient financial system; or
- avoiding significant damage to the financial system that could result from the failure of a registered bank.

For some years now, the Reserve Bank's approach to banking supervision has placed a strong emphasis on banks managing their own affairs prudently and on reinforcing effective market disciplines on banks. Since the mid-1990s, the Reserve Bank has fostered "self discipline" within banks by emphasizing directors' and managers' responsibility for the prudent identification, monitoring and control of banking risks. We have done this primarily by requiring bank directors to sign quarterly, public attestations on the adequacy of their banks' risk management systems. We have also fostered market discipline in the banking system by requiring banks to issue quarterly public disclosures, by maintaining an open and competitive banking system, and by promoting a clear presumption that neither the government nor the Reserve Bank would protect depositors and other creditors against loss in the event of a bank failure.

Both market and self discipline reinforce the incentives already faced by banks and their stakeholders. While the Reserve Bank prefers to use existing incentives wherever possible to promote the sound management of banking risks, we do set some prudential rules when we see a clear need to do so to further strengthen the banking system. Examples of such

rules include requirements for banks to hold a minimum level of capital relative to their credit exposures (currently set to the international norm of 8 per cent), a limit on exposures to connected parties, a limit on non-banking business being conducted within the banking group, and a requirement for bank boards to have a minimum of two non-executive and independent directors.

Since the initial formulation of our approach, the banking world and the New Zealand financial landscape have continued to evolve. Banks globally have developed more sophisticated tools for managing the risks they face, which in some areas have changed their approach to taking risks. Banks, like many other businesses, have also integrated information technology more fully into their operations. New technology has allowed banks to offer customers new ways to access their accounts and has led to a range of new and more complex financial products being offered.

These technological advances have allowed greater centralisation of some banking functions, enabling banks to realise the efficiency gains that centralisation can create. A type of centralisation that is relevant to New Zealand is where some New Zealand banks have outsourced some of their core banking functions, such as computer processing and risk management, to their Australian parent bank or other parts of the parent banking group to achieve greater cost efficiencies.

A high level of foreign ownership of New Zealand banks has been a feature of the New Zealand banking environment for a long time, as has been the concentration of that ownership in Australia. The sale of the National Bank of New Zealand (NBNZ) to ANZ in 2003 further concentrated the ownership of New Zealand banks in Australia. Such concentrations can be a source of risk to the domestic financial system because an adverse event in Australia, such as a severe drought or financial crisis, can be transmitted to New Zealand by way of the Australian-owned banks. An example of a transmission channel could be a shock to the capital or liquidity of the Australian bank impacting on its willingness to provide capital or liquidity to its New Zealand operations. However, there can also be benefits from having the larger New Zealand banks owned by large overseas parents, such as the parent bank's ability to support the New Zealand bank if it were to get into difficulties.

The progressive outsourcing of core banking functionality, and the increased concentration of the banking system in Australian ownership, has raised particular issues for the approach to New Zealand's banking supervision. In particular, it has suggested the need for closer attention to be paid to the adequacy of outsourcing arrangements and the implications for the ability of New Zealand bank subsidiaries to function effectively if the parent bank or another outsourcing provider were to fail. It has also suggested a greater focus on the jurisdiction of a bank's incorporation and the implications of this in the event of bank failure. In this context, the Bank needs to be satisfied that a bank failure could be managed effectively in the interests of the New Zealand banking system.

The Reserve Bank's approach to supervision and regulation cannot stand still in the face of these developments. Over the past few years, we have been making more use of regulatory discipline in areas such as banks' lending to connected parties, the way banks can structure their holdings of insurance business, and the jurisdiction of a bank's incorporation.

The Amendment Act is a further step in the evolution of our approach. It provides the Bank with greater powers to maintain a sound and efficient financial system, particularly in respect of such matters as ensuring that changes in bank ownership do not weaken the banking system, and widening the scope for the Bank to require banks to undergo independent reviews of their risk management systems. These changes do not herald a major change in the Bank's approach to banking supervision. We continue to think that incentive-compatible regulation is the best approach to deliver a sound and efficient financial system, and so will continue to place a strong emphasis on banks' self discipline and on market discipline. The new amendments will assist the Bank to reinforce market and corporate governance mechanisms for promoting a sound banking system through the selective use of a more focused regulatory discipline on banks.

The new Amendment Act powers are already being applied. Shortly after the Amendment Act was passed, the Reserve Bank applied some of the Act's provisions to the purchase by ANZ of NBNZ. Pursuant to a new power in the Amendment Act, ANZ was required to obtain the Reserve

Bank's consent to its purchase of NBNZ. We decided that in assessing ANZ's application, it was appropriate to consider the same criteria that apply for bank registration applications. Where the Amendment Act added new considerations for bank registration applications, these were considered in the context of the change of ownership application from ANZ. In two of these new areas – outsourcing and the suitability of directors and senior management for their positions – the Reserve Bank imposed conditions on its consent to the change in ownership.

The areas where the Reserve Bank imposed conditions of consent to the purchase of NBNZ by ANZ are all on the Reserve Bank's agenda for the development of policies applicable to all registered banks. Indeed, the evolution of our approach will continue in the next few years, as we start to use the Amendment Act powers outlined in the next section, and continue to think about issues, such as the increasing integration of local banks with the operations of their overseas parents, the role of local bank boards, how to manage a bank failure, and the extent to which there should be closer integration of the New Zealand and Australian banking systems and regulatory frameworks.

3 Amendment Act changes relating to banking and payment systems

Table 1, opposite, summarises the main changes to the Reserve Bank Act. Most of the changes relate to bank registration and supervision, which are covered by the changes to Parts IV and V, and to payment systems, which are covered by the introduction of new Parts VB and VC. This section covers the changes relating to banking and payment systems and the following section covers the Part III changes, relating to the governance of the Reserve Bank.

Amendments to Part IV – Use of the word 'bank'

The business of banking in New Zealand is not licensed, so there are no restrictions on who can undertake banking business, such as deposit-taking or the lending of money,

provided that such businesses meet other applicable laws and regulations (such as the requirements of the Securities Act). However, the ability to use the word 'bank' (or 'banking' and 'banker') is restricted by the Reserve Bank Act. With some exceptions, an entity wishing to use 'bank' or a derivative of this word must be registered as a bank with the Reserve Bank. This restriction is aimed at ensuring that non-bank financial institutions do not pass themselves off as a bank and so mislead the public as to their nature and financial standing.

The Reserve Bank's experience applying the restrictions on using 'bank' in names was that there were loopholes in the legislation that had been exploited by some non-bank financial institutions. Consequently, the restrictions on the use of 'bank', and the exemptions from the restrictions, have been tightened in the Amendment Act. Also strengthened were the Reserve Bank's powers to monitor and enforce the restrictions.

One important change is that the 'bank' name restrictions now apply to carrying on any activity, rather than simply carrying on business. Also, where previously exemptions from the restrictions were allowed when 'bank' was part of a person's name or referred to a geographic place, these exemptions now only apply if the word 'bank' is not being used by a financial institution or in a manner that could mean it could reasonably be mistaken for a financial institution.

Non-bank financial institutions can continue to offer and promote banking products as they have done previously, but the Amendment Act requires that if they use the word 'bank' (or one of its derivatives) in an advertisement they must also include a reasonably prominent statement that they are not a registered bank.

Amendments to Part V – Registration and supervision of banks

As noted earlier in this article, the evolving features of the banking environment in New Zealand, and the Reserve Bank's experience using its supervisory powers, prompted changes to the Act in relation to the registration and supervision of banks. Five of the changes represent important policy development areas for the Reserve Bank, as discussed below.

Table 1
Major changes to the Reserve Bank of New Zealand Act

Part	Area	Main changes
III	Governance of the Reserve Bank	<ul style="list-style-type: none"> The Governor no longer chairs the Reserve Bank Board; the chair is now chosen from among the non- executive directors. Deputy Governors are no longer members of the Board and the minimum number of non-executive directors has increased from four to five. The Board is required to publish an annual report on their assessment of the performance of the Reserve Bank and the Governor.
IV	Use of the word word 'bank'	<ul style="list-style-type: none"> Tightens restrictions on the use of the word 'bank'. Tightens the exemptions to the 'bank' name restrictions. Requires that whenever the word 'bank' is used in an advertisement by a non-bank financial institution, a disclaimer must accompany the advertisement stating that it is not a registered bank.
V	Registration and supervision of banks	<ul style="list-style-type: none"> Introduces a requirement for Reserve Bank approval of significant changes in bank ownership. Introduces outsourcing and director and senior manager suitability, among other things, as factors for the Reserve Bank to consider in registering and/or supervising banks. Widens the areas where the Reserve Bank can require a bank to get an independent report by an approved person; the Reserve Bank can now require publication of those reports. Streamlines bank failure management powers.
VB	Payment system oversight	<ul style="list-style-type: none"> Formalises the Reserve Bank's oversight responsibility for payment systems by empowering the Bank to obtain and publish information on payment systems, and to require that information to be audited.
VC	Payment system designation	<ul style="list-style-type: none"> Gives the Reserve Bank the power to designate payment systems to provide for certainty of the finality of payment transactions. Makes rules of a designated payment system (including netting rules) valid and enforceable, and provides that settlements in designated payment systems cannot be reversed.

Change of ownership restrictions: The most publicly visible of the changes to date is the introduction of requirements for potential purchasers of an ownership interest in a registered bank to obtain Reserve Bank consent before giving effect to a transaction that would result in their ownership stake exceeding 10 per cent. The Reserve Bank can impose conditions on its consent to changes of ownership - a power the Reserve Bank exercised in the case of ANZ's purchase of NBNZ.¹

The primary motivation for the change was that the financial strength, standing, risk appetite, and reputation of a parent

bank, or of a bank's owners, can have a significant impact on the bank in New Zealand. For example, the perceived willingness of a bank's owner to provide financial support to the bank if it got into difficulty can influence the bank's soundness and creditworthiness. The change of ownership

¹ For the ANZ purchase of NBNZ the conditions of consent: (i) required Reserve Bank approval before any outsourcing by NBNZ or a merger between the two banks; (ii) did not allow any director or senior management appointment at the NBNZ until the Reserve Bank said it raised no objection to that appointment; and (iii) put in place restrictions to strengthen the responsibility of the NBNZ chief executive to the NBNZ board.

restriction gives the Reserve Bank the power to disallow a change of ownership if it assesses factors such as the impact of the change on the bank's credit-worthiness as being unfavourable. The new power is consistent with standard international banking supervision practice and brings New Zealand closer into line with accepted international norms.

Outsourcing: Banks have increasingly made use of outsourcing as a means of generating efficiencies and keeping their costs down in areas such as risk management, financial accounting and computer processing. In the normal course of business, the efficiencies that outsourcing can generate can be good for the New Zealand financial system. However, outsourcing arrangements that are not robust, or make no contingency arrangements for the failure of the supplier of the outsourcing services, can limit the Reserve Bank's options when a bank is in distress or failing. In particular, outsourcing of core functionality that is not supported by contingency arrangements would create major difficulties in maintaining a bank's operations in the event that the parent bank or another outsource provider failed.

In response to these developments, outsourcing has now been added to the factors that the Reserve Bank can consider when assessing whether a bank is conducting its affairs prudently. This has the effect of allowing the Reserve Bank to place conditions of registration on banks' outsourcing arrangements.

Suitability requirements for bank directors and senior management: Our approach to banking supervision places substantial reliance on bank directors and senior managers, and governance arrangements that allow them to exert meaningful oversight and management of the bank. The introduction of suitability requirements for bank directors and senior management is part of encouraging a culture of good governance in banks. The Reserve Bank now has to consider the suitability of directors and senior managers for their positions when registering banks and has the option of considering it on an ongoing basis through a bank's conditions of registration.

Independent reports: Prior to the Amendment Act being enacted, the Reserve Bank had the power to require a bank to supply it with a report on the bank's financial and accounting systems and controls, prepared by an

independent person approved by the Reserve Bank. However, the range of issues where an independent report could be required was fairly limited, relating mainly to accounting systems and internal controls.

The Amendment Act allows the use of independent reports in a wider range of circumstances by extending the matters where they can be required to almost any aspect of banking business, including corporate, financial, and prudential matters relating to the bank. The coverage of independent reports has also been extended to include some additional parties related to the bank, such as sister companies.

These changes make independent reports a tool that can be used in a wider range of circumstances, such as where technical expertise is required to assess information. The Reserve Bank now also has the power to require an independent report to be published, in a form specified by the Reserve Bank: so independent reports can now be used in a way that contributes to market discipline and reinforces banks' self discipline and corporate governance.

Bank failure management powers: The Amendment Act introduces several changes to the Reserve Bank's powers to respond to a bank distress or failure situation. In order to enable the Bank to move quickly when a bank gets into difficulty, the Bank's powers to give directions to a bank, and to remove, replace, or appoint directors, have been streamlined by removing the need for the Bank to consult with a bank before giving such directions. As before, the Act lists the types of circumstances when these powers can be used, and the Minister of Finance's prior consent is needed before the powers are exercised.

There are also several changes to the statutory management powers of the Reserve Bank, aimed at giving the Bank more flexibility in a statutory management situation. The most noteworthy of the changes is to require a statutory manager to be appointed for a specified period instead of indefinitely.

Other changes: There are a number of other changes to the Bank's banking supervision powers. The most significant of these are:

- Overseas incorporated banks must now have their New Zealand chief executive sign the bank's disclosure statements along with the bank's directors. This change reflects the important role that the CEO of a New Zealand

branch plays in ensuring that the branch's affairs are being conducted prudently, and that the directors of an overseas incorporated bank tend to focus their attention on the bank as a whole, rather than the affairs of a branch operation (given that the branch is legally inseparable from the bank generally).

- The Reserve Bank can authorise supervisors of a New Zealand bank's parent bank (the 'home' supervisor) to conduct on-site inspections of an overseas bank's New Zealand operations or require a New Zealand subsidiary to provide the home supervisor with customer-specific information. This provision is intended to assist an offshore supervisory agency to conduct on-site examinations of the New Zealand operations of a bank based in their jurisdiction, in ways that enable the foreign supervisor to obtain client-specific information where necessary (while preserving confidentiality of information).
- Banks are required to disclose information on their sister companies in either their disclosure statement or to the Reserve Bank.
- Risk management systems are now explicitly identified as a consideration for assessing whether a bank is carrying out business in a prudent manner, whereas previously the Reserve Bank had considered banks' risk management systems under the heading of 'internal accounting systems and controls' when assessing whether a bank was carrying out its business in a prudent manner. The amendment clarifies the Bank's power in this regard.

New parts VB and VC – Payment system oversight and designation

The Reserve Bank has always viewed payment systems as an important component of the financial system. Payment systems are the plumbing of the financial system, linking banks, their customers, merchants, and other financial institutions, and are essential for the efficient conduct of business. Payment systems are also important from a policy perspective because of their ability to transmit shocks among financial institutions and to be a source of shocks to financial institutions.

The Amendment Act formalises the Reserve Bank's payment system oversight mandate. The Bank is required to use its new powers to promote the maintenance of a sound and efficient financial system. The new payment system oversight powers empower the Bank to collect information relating to payment systems, to have that information audited, and to disclose that information. The Act does not give the Bank the authority to regulate payment systems, other than indirectly in the process of designating a payment system.

The Amendment Act also confers a new power on the Reserve Bank to designate payment systems. Designation removes any doubt over the legal status of payments made through a designated payment system by making the rules, of designated payment systems and any netting arrangements under the rules, valid and enforceable. Settlements through designated payment systems cannot be reversed in the event that a participant in the payment system (such as a bank) is placed into liquidation or statutory management, although the underlying transactions can still be subject to challenge by a liquidator under the normal rules of insolvency. Payment system designation is discussed more fully in an article by Loretta DeSourdy in this edition of the *Bulletin*.

4 Changes to Reserve Bank governance arrangements

In 2000, the Government appointed Professor Lars Svensson, an international expert on monetary policy, to conduct an independent review of the operation of monetary policy. Several of Professor Svensson's recommendations related to the governance arrangements at the Reserve Bank. A number of them were subsequently incorporated into the Amendment Act.

The most significant of the changes in the Act relate to the membership of the Reserve Bank Board. The previous arrangements, where the Governor chaired the Board and Deputy Governors were Board members, were not ideal from a governance perspective, given the Board's main role of monitoring and assessing the performance of the Governor

and the Reserve Bank. Under the new arrangements, the Governor remains on the Board but ceases to be the chair – the chair must be one of the non-executive directors, and the Deputy Governors are not Board members. To maintain a reasonable number of Board members, given the removal of the Deputy Governors from the Board, the minimum number of non-executive directors has been increased by one to five. In addition, the Act now requires the Board to report annually to the Minister of Finance on the Board's assessment of the performance of the Reserve Bank and Governor, formalising the practice adopted by the Board in recent years.

Taken together, these changes make the Reserve Bank's governance arrangements more consistent with what is considered best practice in corporate governance and better aligned with the particular role of the Bank's Board.

5 Conclusion

The world of banking and finance is constantly evolving. To be effective and efficient, legislation also needs to evolve, adapting existing frameworks to confront new problems, and occasionally developing new frameworks to approach both old and new problems. The 2003 amendments to the Reserve Bank Act adapt the Bank's existing philosophy for banking regulation to meet the evolving environment and to refine our approach based on our experience in recent years. Future *Bulletin* articles will elaborate on how we plan to apply some of the powers introduced by the Amendment Act.

Designation of payment systems – new Part VC of the Reserve Bank of New Zealand Act 1989

Loretta DeSourdy, Financial Stability Department

This article looks at the new Part VC of the Reserve Bank of New Zealand Act, which deals with the designation of payment systems. It briefly describes payment systems and looks at why legislation designating them was required. The article then looks at the details of the legislative framework.

1 Introduction

The Reserve Bank of New Zealand Amendment Act 2003, which came into force in August last year, added two new parts to the Reserve Bank of New Zealand Act (the Act), both of which deal with payment systems. The first of these, Part VB, deals with oversight of payment systems by the Reserve Bank, and provides the Bank with the power to collect and publish information in relation to payment systems¹. The other new part of the Act, Part VC, provides for the designation of payment systems by Order in Council for the purpose of providing greater legal certainty to payments executed through designated payment systems. This article focuses on Part VC of the Act.

2 Background – Payment system risks, legal uncertainty and the adoption of payment system designation

Payment systems are a key part of the financial infrastructure of the economy. They are used to transfer funds among participants, which are usually financial institutions, acting on their own behalf or on behalf of their customers, by using a system or arrangement for the clearing and/or settlement of payment obligations or for the processing of payment

instructions. Sound and efficient payment systems play a vital role in maintaining financial stability and the smooth functioning of a modern economy. However, they can also transmit financial shocks and, in the case of payment systems dealing with large-value payments, can lead or contribute to systemic crises if they are poorly designed and managed. It is important therefore to contain risks in a payment system. These risks are of various types, including legal, credit, liquidity and operational risk.

As discussed in various articles in the *Bulletin* over recent years, a number of major changes have been implemented in New Zealand's payment systems to reduce risks, for the purpose of promoting a more robust and efficient financial system. These changes have included the implementation of real time gross settlement (RTGS) for large-value payment systems, in which payments between participants (typically banks and other financial institutions) and their customers are only executed upon the underlying settlement being made between the participants intra-day. Another important development was the introduction of robust laws to facilitate the enforcement of netting arrangements for payments settled on a deferred basis (which mainly affects smaller-value payments). Both of these developments have substantially reduced the credit risks associated with payments transactions between participants, and have thereby reduced the potential for the failure of one participant to contribute to the financial distress or failure of another. These reforms, together with the introduction of laws to facilitate electronic processing of cheque clearance in the mid-1990s, have also helped to promote greater reliability and efficiency in the payments system. The enactment of

¹ The oversight provisions were discussed in more detail when the Bill was still at the introduction stage, in Allison Stinson & Michael Wolyncewicz, 'Recent developments in the payment system', *Reserve Bank of New Zealand: Bulletin* Vol 66, No 1, p 21.

Part VC of the Act is a further step in strengthening the New Zealand payment system.

The enactment of Part VC will help to reduce the legal risks in payment systems to provide more legal certainty for payments made through a designated payment system, where a designation is made by Order in Council at the recommendation of the Reserve Bank. One of the Core Principles for Systemically Important Payment Systems – the international principles relating to payment systems – is that a payment system should have a well-founded legal basis. The Core Principles, which are published by the Committee on Payment and Settlements Systems of the G10 central banks², and operate under the auspices of the Bank for International Settlements, provide an internationally recognised framework for the sound design and operation of payment systems.

The legal basis of a payment system includes legislation and regulations, as well as industry agreements and contractual arrangements, which together govern the payments and operations of the system. New Zealand has few specific legislative and regulation requirements governing payment systems. Payment systems must operate within the general law, including general commercial and consumer law. The New Zealand Bankers' Association establishes industry standards and policies in some instances, but the payment services entities have their own governance arrangements, business strategies and rules. Specific legislation relating to payment systems includes the Bills of Exchange Act 1908 and the Cheques Act 1960³, as noted earlier, the Reserve Bank of New Zealand Act now gives the Bank formal oversight of the payment systems and provides for the designation of payment systems.

The Core Principles explain that “a sound legal basis for a payment system defines, or provides the framework for relevant parties to define, the rights and obligations of parties to payment transactions.”⁴ A legislative solution was required in New Zealand to eliminate uncertainty in relation to when

a payment transaction can be regarded as final. The law was not totally clear in this area, primarily because there existed the possibility that settlements through a payment system might have to be unwound if a participant became insolvent. This uncertainty was caused chiefly by the voidable preference provisions in the Companies Act 1993. The voidable preference provisions are legislative provisions in the insolvency law which apply to transactions that occurred within a specified period prior to the commencement of liquidation, statutory management or adjudication as bankrupt and which have the effect of preferring one creditor of the debtor over another. The most well known of these provisions is probably section 292 of the Companies Act 1993 – transactions having preferential effect.

The solution to this uncertainty is the designation of payment systems pursuant to the new powers in Part VC of the Act. As discussed in greater detail later in this article, the effect of designation is to provide for legal certainty over the finality of payments made via payment systems designated by Order in Council. In legislating to allow for the designation of payment systems and seeking to reduce some of the risks associated with this key part of the financial infrastructure, New Zealand joins a number of other jurisdictions that have adopted similar arrangements, including the United Kingdom, Canada, Australia and Singapore⁵.

The development of a payment system designation framework was motivated in part by New Zealand's intention to participate in an international arrangement designed to reduce another element of payment system risk – the risk associated with time lags in the paying and receiving of foreign exchange transactions. This arrangement involves the establishment of CLS Bank – an international continuous linked settlement system designed to reduce the risk associated with the settlement of foreign exchange transactions.⁶ Foreign exchange settlement risk (or Herstatt risk) may include both credit and liquidity risk, and arises

² Bank for International Settlements, Committee on Payment and Settlement Systems, *Core Principles for Systemically Important Payment Systems*, Jan 2001 (Available at www.bis.org)

³ The Cheques Act 1960 is deemed to be part of the Bills of Exchange Act 1908

⁴ Above note 2, p 16

⁵ See in this regard, United Kingdom: Statutory Instrument 1999 No. 2979, *The Financial Markets and Insolvency (Settlement Finality) Regulations 1999*, Canada: *Payment Clearing and Settlement Act 1996*, c 6, Sch; Australia: *Payment Systems and Netting Act 1998*. Singapore: *Payment and Settlement Systems (Finality and Netting) Act 2002*

⁶ For a more detailed description of CLS see above note 1, Stinson & Wolyncewicz., *Reserve Bank of New Zealand: Bulletin* Vol 66, No 1, p 21

because of the time lag between the settlement of the two legs of the transaction. A major component of foreign exchange settlement risk is the risk that the sold currency will be paid away before the bought currency has been received. This time lag arises because of the time zone differences between countries and the lags involved in the processing of different stages of a payments transaction and its associated settlement. The lags can range from just a few hours to, in some instances, over 24 hours. Over 60 international banks moved to reduce this risk by establishing CLS (Continuous Linked Settlement) Bank International ("CLS Bank"), which links the RTGS systems of the central banks of the currencies involved.

CLS has agreed in principle to include the New Zealand dollar in the currencies it would settle if CLS' requirements are satisfied. For this satisfaction to occur, it was necessary to remove the uncertainty that existed in New Zealand law over the finality of payments made via New Zealand's payment systems. With the enactment of the new payment system designation framework, coupled with other steps underway, it is expected that the New Zealand dollar will be accepted into CLS Bank in the second half of this year. CLS Bank is expected to be one of the first payment systems to apply for designation, but the legislation will apply to any payment system that is designated.

Designation of a payment system will provide finality for settlements made through the designated payment system. Secondly, it will also make netting under the rules of the designated system valid and enforceable in the event of insolvency. Finally, designation will provide that the rules of the payment system, to the extent that they deal with payment instructions and settlements and the taking of action in the event of a participant failing to meet its obligations, are valid and enforceable. However, the legislation does not prevent the operation of any enactment or rule of law in relation to an underlying transaction⁷. These points are elaborated on in the section on the effects of designation, later in this article.

⁷ These include the voidable transaction provisions under sections 56, 292, 297 and 298 of the Companies Act 1993 and section 56 of the Insolvency Act 1967.

3 The designation regime

Designation is voluntary and will only be considered where a person applies under Part VC for a payment system to be assessed for the purpose of becoming designated. Payment systems can continue to operate, as they do now, without being designated. Applications for designation are made to the Reserve Bank, with the actual designation to be effected by Order in Council made on the advice of the Minister of Finance acting on a recommendation from the Bank. The powers under Part VC must be exercised for the purpose of promoting the maintenance of a sound and efficient financial system or avoiding significant damage to the financial system that could result from the failure of a participant in a payment system.

In determining whether to make a recommendation to the Minister for the designation of a payment system, the Act enables the Reserve Bank to have regard to the following factors:

- the purpose and scope of the payment system;
- the rules of the payment system;
- any laws or regulatory requirements relating to the operation of the payment system and the extent to which the payment system complies with those laws or regulatory requirements;
- the importance of the payment system to the financial system; and
- any other matters that the Reserve Bank considers appropriate.⁸

The designation Order must specify the payment system, the documents that set out the rules of the payment system⁹, and the name or title of a person to whom notices relating to the designation must be given ("contact person"). A designation Order may specify that it is subject to conditions and that a particular operator is a participant in the payment

⁸ Section 156W(2) of the Act

⁹ As noted later, in the case of a designated payment system, "rules" means the rules of that payment system that are contained in documents and specified in the designation under section 156M; and includes any amendment to those rules that have been motivated to, and agreed, by, the Bank.

system¹⁰. Designation Orders can be varied¹¹ or revoked¹², again by Order in Council made on the advice of the Minister of Finance in accordance with a recommendation from the Reserve Bank. A variation or revocation will not affect settlements that were effected and netting that took place before the variation or revocation¹³.

Designation will not mean that the Crown or the Reserve Bank is in any way endorsing the payment system in question or its participants. Where the Reserve Bank recommends to the Minister that a payment system be designated under Part VC, it simply means that the Reserve Bank is satisfied that designation of the payment system will promote the maintenance of a sound and efficient financial system or avoid significant damage to the financial system that could result from the failure of a participant in the payment system, by providing legal certainty to payments made via that payment system.

In November 2003, the Bank released for consultation a paper on the proposed framework for considering applications for designation, entitled: "Application for Designation as a Designated Payment System"¹⁴. The Bank is presently considering the comments and submissions received on the proposals, with a view to finalising the criteria for designation. In the consultation paper, the Bank set out its proposals relating to the application process and the criteria that the Bank would use to assess an application. The proposed criteria draw heavily on the Core Principles for Systemically Important Payment Systems, which the Bank considers provide a sound framework for assessing applications for designation under the Act.

The Bank is proposing that, to be eligible for designation, a payment system should be a systemically important payment system or otherwise widely used by a broad range or number of participants or users. A systemically important payment system is one which can trigger or transmit shocks across domestic and international financial systems and markets, either because of the size or nature of the payments that are

processed through the system or because of the aggregate value of the payments. The Bank is proposing that it consider recommending for designation systems other than systemically important ones where the Bank is satisfied that designation will promote the smooth and effective functioning of the financial system.

The paper also proposes that the payment system should provide for the transfer of funds - ie the transactions must be financial in nature and should provide a mechanism for the payment and/or settlement of such transactions that is legally, financially and operationally robust.

In addition to the purpose of the payment system and its importance to the financial system, the paper lists proposed criteria covering the rules, the law or regulatory requirements and the following additional matters:

- requirements for participation in the payment system;
- matters relating to settlement;
- the management of operational risk;
- the governance of the payment system; and
- the financial resources of the payment system.

It is beyond the scope of this paper to go into detail about all of these issues. However, they include the following: the rules should be clear and comprehensive; the payment system should have a well-founded legal basis; the payment system should have the capacity to process the volume of transactions and a high degree of security and operational reliability; the payment system should have effective and transparent governance and accountability and sufficient financial resources for the proper performance of its function as a payment system.

Effect of designation - payments finality

Designation of a payment system will provide finality for the payments that are settled through the designated payment system. Finality will usually become relevant when a participant in the designated payment system goes into insolvency. In the case of a designated system, the liquidator will not be able to challenge settlements made through the payment system.

¹⁰ Section 156M of the Act

¹¹ Section 156Y of the Act

¹² Section 156Z of the Act

¹³ Section 156ZA of the Act

¹⁴ Available on the Bank's website: <http://www.rbnz.govt.nz>, under the heading "Payment & Settlement System"

Transactions which underlie the payments that are going through the system will not receive protection: only the payments settled in the payment system are legally protected. The transactions which underlie those payments will still be subject to challenge by a liquidator or statutory manager under conventional liquidation principles. "Underlying transaction" is defined for this purpose as a transaction that gives rise to a payment or a payment obligation but does not include a payment instruction or a settlement in accordance with the rules of a designated payment system.¹⁵ Also, a party is not prevented from acting against another party that has acted fraudulently or dishonestly; although such action will not affect the validity and enforceability of the rules, payment finality or netting under the designated payment system.

The proposals will allow for finality of settlements and for netting beyond the point of insolvency until notice of the insolvency is received by the payment system, up to a maximum period of 24 hours after the commencement of the insolvency. The Act specifies that the notice is to be to the "contact person". An applicant for designation must provide to the Bank the name or title of a person to whom notices relating to the designation must be given. That person will be the contact person and will be specified in the designation Order.

Allowing settlement to continue after the time insolvency commences is a departure from the general insolvency law, which provides that the actual time of insolvency is the cut-off point beyond which transactions can no longer be processed. The departure was considered justified in this case as there may be a time lag between the time an insolvency commences and the time that notice of the insolvency is received by the payment system. To require settlements made between the time at which a liquidation commences and the time at which the liquidation becomes known to the payment system to be unwound could cause significant disruption to the financial system, with potentially severe liquidity problems. Also, because the underlying transactions can be challenged, the liquidator will be able to pursue these in the case of voidable transactions.

¹⁵ Section 156T(3) of the Act

Netting

Where a payment system has been designated, netting will be valid and enforceable where the rules of the designated payment system provide for netting. Netting is widely used in financial markets and many payment systems make use of netting. Netting agreements can be either bilateral or multilateral. A netting agreement is a contract whereby each party agrees to set off amounts it owes against amounts owed to it. The amounts owing are netted off and only the netted balance is payable. The result is that the total exposures between the parties are reduced.

Netting reduces systemic risk by enabling counterparties to reduce their risk exposures. Legislation was passed in April 1999¹⁶ to give netting agreements legal certainty. That legislation has some restrictions which will not apply in the case of designated payment systems. For example, the Companies Act requires that, for bilateral netting, the transactions to be netted must be mutual. Mutuality requires that claims must be between the same parties claiming in the same beneficial right¹⁷. In the case of multilateral netting, the legislation only applies where there is a recognised multilateral netting agreement. This requires that the multilateral netting agreement is contained in, or subject to, the rules of a recognised clearing house. The legislation gives to the Bank the power to declare a person to be a recognised clearing house. The definition of "multilateral netting agreement" in the Companies Act is quite specific,¹⁸

¹⁶ See, DeSourdy, 'New legislation on netting and payments finality', *Reserve Bank Bulletin* Vol 62, No 2.

¹⁷ Section 310D of the Companies Act 1993

¹⁸ A "multilateral netting agreement" is defined in section 310A of the Companies Act as: "an agreement that provides for the settlement, between more than 2 persons, of payment obligations arising under transactions that are subject to the agreement, and that provides, in respect of transactions to which it relates, that debits and credits arising between the parties are to be brought into account so that amounts payable by or to each party are satisfied by-

- (a) Payment by or on behalf of each party having a net debit to or on behalf of a clearing house (whether as agent or as principal) or a party having a net credit; and
- (b) Receipt by or on behalf of each party having a net credit from or on behalf of a clearing house (whether as agent or as principal) or a party having a net debit".

whereas the definition of “netting”¹⁹ in Part VC is not quite as restrictive.

The designated payment system regime allows for more flexibility, so that designated systems which use multilateral netting that does not come within the definition in the Companies Act will be covered, as will non-mutual bilateral netting. The netting provisions in the Companies Act will not apply to netting under the rules of a designated payment system.

Rules to be valid and enforceable

The rules of a designated payment system will be valid and enforceable despite any enactment or rule of law to the contrary.²⁰ This applies to the extent that the rules provide the basis on which payment instructions are given, payments are calculated, and settlements are made (either on a gross basis or using netting) and for the taking of action in the event that a participant is unable, or likely to become unable, to meet its obligations to another participant, the operator, or any other party to the rules. Rules are defined in the Act²¹ and in the case of a designated payment system they are the rules that are contained in documents specified in the designation order and any amendments to those rules that have been notified to and agreed to by the Reserve Bank.

Supply of information

Under Part VC of the Act, the Bank can require the operator, a participant, or the contact person of a designated payment system to supply the Bank with information relating to a designated payment system. The Bank must exercise this power only if it considers that the information is reasonably required to enable it to perform its functions and duties under Part VC. As already noted, the Bank must exercise its powers under Part VC for the purpose of promoting the maintenance of a sound and efficient financial system or avoiding significant damage to the financial system that could result from the failure of a participant in a payment system. The powers in Part VC are in addition to powers that the Bank has under Part VB to obtain information or data relating to a payment system²² and are expected to be used as reserve powers where the issues relate to designated payment systems or a particular system, rather than to payment systems more generally.

4 Conclusion

The addition of the new Part VC to the Act provides greater certainty for the payment systems that will be designated under it. The legislation has been drafted to allow for flexibility in the rules governing these payment systems. The legislation also removes a legislative hurdle to facilitate the acceptance of the New Zealand dollar into the CLS system. Taken together, these initiatives will further strengthen the New Zealand payment system and contribute to ongoing developments in the promotion of a sound and efficient financial system.

¹⁹ “Netting” is defined in section 156L as “the conversion into 1 net claim or obligation, or the set off, of different claims or obligations between participants in a payment system that results from the issue and receipt of payment instructions involving 2 or more participants in the payment system or that is otherwise provided for under the rules of the payment system,-

- (a) whether on a bilateral or multilateral basis; and
- (b) whether or not through the interposition of an operator of the payment system; and
- (c) whether or not the obligations or claims constitute mutual credits, mutual debts, or other mutual dealings; and
- (d) whether or not the obligations or claims are denominated in New Zealand currency”.

²⁰ Section 156O of the Act

²¹ Section 156L of the Act

²² Section 156C of the Act.

Speech

Asset prices and Monetary Policy

An address by Dr Alan Bollard, Governor, Reserve Bank of New Zealand to the Canterbury Employers' Chamber of Commerce, Christchurch

30 January 2004

It has long been a tradition that Reserve Bank Governors begin their year with a speech to the Canterbury Employers' Chamber of Commerce and because the economy of Christchurch is focussed on exporting the topics picked have often been of particular interest to the tradable sector. Given current concerns about the exchange rate, you may have expected a talk on that subject. However, I want to talk about something else – a topic which may seem more esoteric, but in particular circumstances can be very important. Indeed, it is a topic that has been of considerable relevance to New Zealand from time to time over the years.

Among central bankers right now one of the key topics of debate is whether monetary policy should actively seek to encourage **asset** price stability. The sharp end of this is whether monetary policy should seek to prevent or at least reduce asset price bubbles? This is exemplified by questions such as whether Japan's long-running recession and the US "tech wreck" could have been ameliorated by monetary policy constraining the events that preceded them.

Before going further, I should define my terms a bit. By an asset price I mean the price of something that one buys to generate income or to sell for a profit later. Examples are physical assets - like housing, land, other buildings and collectables like paintings or exotic cars - and financial assets - like shares, bonds and other financial instruments. By consumer prices I mean things one buys to consume, like milk, petrol, a visit to the doctor and ordinary cars. Remember also that asset prices often behave more erratically than consumer prices, being slower to react to changes in supply and demand. Prices of, for example, fruit and vegetables move constantly to match up buyers and sellers. Asset prices are seldom that appealing in terms of classic economics.

Under the Reserve Bank's *Policy Targets Agreement (PTA)* the Bank is required to ensure price stability, as measured by the Consumers Price Index (CPI), and, subject to this goal, to avoid unnecessary instability in output, interest rates and

the exchange rate. Asset prices are not included in the CPI. Thus the question is should monetary policy sometimes look ahead of its normal time horizon and try to offset the potential damage down the track to consumer prices and economic stability that can occur when asset prices tumble?

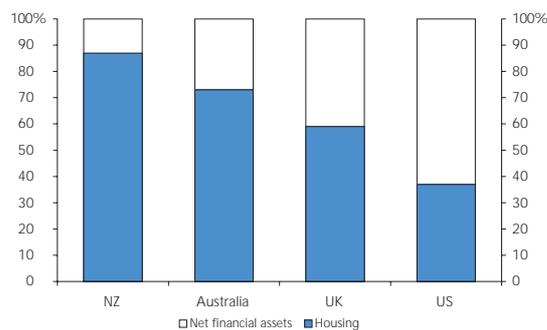
Monetary policy automatically takes asset price developments into account

The first point I need to make is that day-to-day central banks pay attention to asset prices when setting monetary policy, even when, as in New Zealand, their formal focus is exclusively on consumption prices.

This is primarily because asset price movements impact on CPI inflation and large movements in asset prices can have significant implications for CPI inflation. For starters, in the case of physical assets, if their prices are rising faster than general inflation, people try to build or create more. For example, if the price of paintings is going up artists get painting. To do that they have to buy more paints, brushes and canvas, putting pressure on prices of these materials.

In addition to that direct impact, asset price movements – physical and financial – also feed into CPI inflation due to the so-called "wealth effect". As asset prices rise, people tend to feel wealthier. Some people go shopping as a result, and in an economy already running at full steam this gives inflation a push. This can apply with any kind of asset, but in New Zealand we see this mostly through house prices, due to the high proportion of home ownership here, as well as the large proportion of household wealth associated with housing, as illustrated in graph 1.

Graph 1
Household wealth: housing and net financial assets

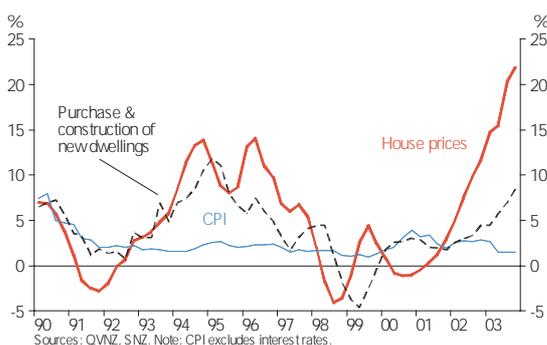


Sources: RBNZ, RBA, Federal Reserve, BoE

Asset prices also feed through into spending and hence inflation in other ways. For example, asset price increases improve balance sheets, increasing the borrowing power of firms and individuals. Increases in net worth tend to increase the willingness of lenders to lend and borrowers to borrow, facilitating a general expansion in spending as well as an expansion in spending on the construction of appreciating assets.

In New Zealand, for example, house price inflation can lead to greater demand for houses, and price increases in construction-related goods and services. These goods and services are directly included in the CPI making up about 8½ per cent. Lately, “purchase and construction of new dwellings” has been notching up price increases approaching 7 per cent year-on-year. This is much higher than the CPI average of around 1½ per cent (see graph 2), and contributed materially to our recent non-tradables inflation of around 4½ per cent.

Graph 2
The link between house price inflation and the CPI



Sources: QVNZ, SNZ. Note: CPI excludes interest rates.

Central banks also pay attention to asset prices because they contain information that's very useful when setting monetary policy. Normally asset prices reflect perceptions of future income streams that the assets will earn. Therefore, asset prices tell us something about how people think the economy will perform in the months and years ahead.

Accordingly, in the ordinary day-to-day operation of monetary policy asset prices matter. Also, day-to-day, when the Reserve Bank raises or lowers interest rates to keep CPI inflation where it should be, this also tends to partly constrain rising or falling asset prices in a desirable way. So most of the time asset and consumer prices roughly track together and asset prices present no particular problem for monetary policy or the economy. That's most of the time.

The building and bursting of big speculative bubbles

There are however times when things get more difficult and asset prices move well out of line with underlying economic fundamentals.

For example, in Japan real estate prices and the equity market shot up through the 1980s, with the Nikkei getting to extraordinary levels before the inevitable collapse which took 60 per cent off equities in 3 years and 70 percent off real estate prices over the following decade. Economic growth struggled, averaging only 2 per cent in the 1990s compared to 4 per cent in the 1980s.

In Sweden real estate prices boomed in the second half of the 1980s, nearly doubling over that time. The boom ran out of steam in 1991, and the correction was severe enough to require the rescue of a good deal of the Swedish banking system. Over the first 3 years of the 1990s, Sweden's economy shrank by nearly 10 per cent.

And in the US the NASDAQ increased fivefold over 3 years in the late 1990s, before losing all of that ground by early last year. With the boom having helped the US economy grow at an exceptional pace during the 1990s, the collapse helped send that economy nearly into recession.

These examples hopefully make clear that this goes far beyond just housing assets, and includes equities or shares,

commercial property, rural property and a wide range of financial assets.

In each of these cases, at least early on in the episode, asset prices were behaving "normally" and asset prices reflected reasonable expectations of the earnings prospects of those assets. A variety of things can cause expectations of future earnings prospects to be revised either up or down, and this will of course affect the prices of the assets. As farmers in the audience know, rural land and stock prices swing readily with peoples' confidence about the future. The sharp rise in dairy land prices in following the GATT agreement in the early 1990s was an example of how expectations can influence asset prices.

But expectations of the future can sometimes go beyond the well-founded and can turn out to be horribly wrong. Sometimes, asset prices can become disconnected from reasonable expectations of future earnings, resulting in speculative bubbles that cannot be justified by economic fundamentals. These are situations where markets fail in a big way to get prices even approximately right. Such mispricing can be exaggerated by rule-of-thumb, momentum, or herd behaviour, or irrational exuberance if you like. It happens sometimes that speculators convince themselves that someone else will pay still higher prices for an asset in the future, and in such a situation prices can start bearing less and less relation to any reasonable expectation of future income streams.

Classic examples of speculative bubbles include the tulip mania that swept Holland in the seventeenth century, and the South Seas bubble which caused the first big stock market crash in England in 1720. The more recent three examples I have cited were mild by comparison with these earlier ones!

Although bubbles may persist for quite some time, experience shows that asset prices eventually return to a level that is more consistent with "the fundamentals". Bubbles do reveal themselves in the end – people are not fooled forever. Eventually mistakes in pricing become widely recognised, and markets correct. This makes bubbles inherently temporary, involving first expansion and then contraction. It is often only once the contraction has taken place that we see how big the bubble was, or just how much prices were

misrepresenting economic fundamentals. But by then a lot of damage may have been done.

Failures to get asset prices "right" won't always be obvious until prices have corrected, but in principle if we can't square rapid price increases for assets with any apparent fundamentals then we are probably looking at a bubble. In extreme cases, that inability to square developments with fundamentals may become obvious before the correction happens.

Speculative bubbles can do damage in two ways. First, they distort resource allocation in the wider economy as people get fooled into investing in the wrong things. Resource misallocation can also be caused by the consumer price inflation that sometimes accompanies asset price bubbles, since inflation makes decision-making more difficult.

Second, when the bubble bursts there is damage to consumer and investor confidence, economic activity and potentially the financial system. Several recent international studies¹ of asset price booms and busts have documented substantial costs from asset price cycles.

The role of the financial system can be crucial to the consequences of a bubble building and bursting. The economic consequences when bubbles burst depends on the extent to which individuals and companies have taken on debts that they cannot comfortably meet. Asset price changes typically involve borrowing and lending in financial markets, because it is future income that is being used to "fund" current expenditure. Generally, at least some of the income from an asset is used to repay financial obligations associated with the asset's purchase. With speculative bubbles, future capital gains – rather than future income – are often the main source of expected profit. If the bubble bursts, and such capital gains aren't forthcoming, people have to look elsewhere for the money to service and repay their debts.

Debt financing is an extremely useful feature of the economy. It facilitates the reallocation of resources in the economy towards the most profitable activities. Nevertheless, heightened debt can seriously backfire when bubbles burst.

¹ Helbling and Terrones (2003), IMF; Bordo and Jeanne (2002), IMF; Detken and Smets (2003), ECB

In particularly severe cases, borrowers' troubles carry over to lenders as well, so that in a bubble situation financing, credit and leverage may create financial fragility. Since the financial system is at the heart of all economic transactions, any disruption to it can have significant implications for economic activity. This fragility is sorely exposed when the bubble implodes. These issues are well-illustrated by the Japanese and Swedish cases referred to earlier.

Prudent lending practices can help to insulate lenders from serious fallout associated with declines in asset prices, but even then a bubble can still result in serious macroeconomic fallout. The bursting of the US high-tech stock bubble in 2000, and the subsequent weakening in equity prices more generally, was not accompanied by major financial sector problems, but it has been followed by a sustained period of very weak economic growth. Stretched balance sheets, characterised by excess leverage, damaged business confidence, over-investment in high-technology enterprises, and sharply increased costs of new equity raisings all combined to hold back new corporate investment to such an extent that economic growth stalled.

This brings us to the crunch question of whether central banks should try to constrain asset price bubbles to avoid or at least reduce the disruption to the real economy that can come from a bubble bursting?

Firstly, we need to recognise that this is difficult as it is very hard to tell in advance whether or not any particular market changes are justified. Forecasting the future is never easy. At each point in time, there tend to be many plausible explanations associated with any given price movement, and it is hard to separate temporary factors from more permanent ones until some time has passed.

Secondly, pursuing a separate asset price objective could mean having to compromise on our normal inflation objective. Seeking to stabilise rising house prices or an overheated stock market might mean having to force inflation lower than otherwise would be required. It might also mean greater variability in the real economy, interest rates and, potentially, the exchange rate. That could raise questions about the PTAs requirement to conduct monetary policy to maintain CPI price stability and avoid unnecessary volatility in those other variables.

A further difficulty is that interest rates have limited power to affect the perceptions which move asset prices in the first place. To materially affect some asset prices, such as housing, interest rates might need to move quite a bit, and probably by much more than would be required just to keep CPI inflation comfortably within the target range. Since interest rate changes affect not just house prices, but also the prices of most other assets, goods and services, there would be secondary, unintended consequences, with potentially serious consequences for the economy as a whole.

Timing also makes this difficult. Given the lag of 1 to 2 years that we think applies between an interest rate move and its effect on the real economy, the risk is high that policy moves would be mistimed and only make matters worse. If interest rates are high at the moment that a bubble bursts, those high interest rates will still impact on the economy two years on. This would make the landing harder.

So, given both uncertainty over whether asset price increases have overshoot, and doubts over whether monetary policy responses are helpful for known bubbles, one has to be cautious in leaning aggressively against an increase in asset prices.

What about using other instruments besides the interest rate? There are not many appealing options for this. Some less developed financial systems use mandatory credit rationing, but this instrument is also very blunt, harming newcomers to the market, distorting resource allocation and potentially depriving the private sector of sound investment opportunities.

Another possible option – at least in theory – is to make more use of prudential regulation. For example, could the capital ratio applied to banks be used counter-cyclically? Could the risk-weight on credit exposures secured by residential property be applied in ways that reduce swings in house prices? From time-to-time we consider these kinds of issues, but have so far always reached the same three negative conclusions.

First, such tools are unlikely to be very effective in addressing asset price cycles. The implementation of policy changes would take time, after which there would be a potentially long and variable lag in the impact on asset prices. Second, although such tools are less blunt than the OCR in targeting

particular asset categories, they are nonetheless still relatively blunt instruments, and would have impacts that go beyond those intended. Third, the use of such tools for macroeconomic purposes conflict with the objective for which such tools were originally designed – i.e. financial stability. Indeed, the use of prudential regulation to moderate asset price cycles might backfire in some circumstances, creating perverse incentives for banks to bias their lending into riskier ends of the lending spectrum, which in turn could reduce the stability of the financial system. These factors have led us to reject the use of prudential tools as instruments for responding to asset price cycles.

So where does that leave us?

As I have already explained, in the course of doing what we normally do we automatically lean against detrimental effects of asset price movements, since there is often a correlation between asset price inflation and consumer price inflation. The harder question is what to do when a speculative asset price bubble is not accompanied by current or near-term inflation.

Responding to a bubble bursting is relatively obvious. The collapse of big speculative bubbles is often accompanied by recession and disinflation or even deflation. The Japanese case illustrates the point. A rapid monetary response, aggressively if need be, to a sudden collapse in asset prices would be consistent with the PTA, assuming there was also a substantial risk of consumer price disinflation.

Responding to an emerging bubble is more challenging. I have presented reasons why it is sensible to prevent the emergence of large speculative asset price bubbles, if possible. And I have presented reasons why that would be difficult to achieve, and why it would be risky to try. Nonetheless, it seems to me that the scale of the fallout from the build-up and bursting of very large asset price bubbles warrants taking some risks in an attempt to moderate – and that's all that one might hope for – the problem. And it seems to me that there are cases when the asset price misalignment is sufficiently obvious that one can be confident enough to take the risk.

But I need to be clear that such situations are likely to be rare indeed. And the risks may be considerable. We are talking about circumstances where monetary policy may well

have to be quite tight – tighter than would be the case if the sole objective was to keep consumer price inflation within the target range. In such circumstances, I expect many audiences would say that the Bank was unnecessarily squeezing growth from the economy. It would be a foolhardy central banker who would take such risks lightly.

That said, as I interpret my mandate, it does permit me to take such risks in rare circumstances. As I explained in an earlier speech, the PTA clearly requires monetary policy to be forward-looking. Normally, we would think in terms of the next three years. But, as I indicated then, there will be exceptions. Given the potentially long-lived nature of asset price misalignments, it may occasionally be helpful to take a longer view of when risks might eventuate, how best to insure against them, and at what price. As a recent IMF study² has pointed out, in effect an asset price boom can change the trade-off between current and future macroeconomic objectives. A new element enters the picture, which involves trading off the risk of severe economic dislocation further down the track with the near-term cost of reducing that risk.

Recent New Zealand house price developments in context

The next and obvious question is whether or not the recent run up in house prices in New Zealand constitutes a bubble so severe that it warrants a one-off additional monetary policy response, as described. Such a response would drive overall inflation to near the bottom or even below the 1 to 3 per cent target range in the PTA, thereby letting the air out of the bubble to avoid a collapse later. The immediate answer is no, though of course, in terms of the day-to-day controlling of consumer price inflation, housing is still the biggest thing being faced at the moment.

Over longer periods of time, real house prices are determined by the balance between underlying demand and supply conditions. There are nevertheless some important idiosyncrasies to housing markets that should be borne in

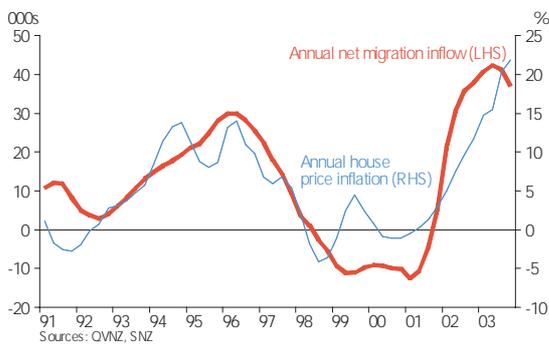
² Bordo and Jeanne (2002)

mind. On the demand side, such factors include demographics, migration, growth in household disposable income, features of the tax system and the average level of mortgage interest rates. On the supply side, factors include improvements in the existing housing stock, the availability of suitable building sites, and construction costs.

Although the demand for housing can shift quite dramatically in a short space of time, the housing stock is relatively inelastic. It takes time to build new houses and the capacity of the construction sector to provide them also takes time to adjust to variations in demand.

Accordingly, housing prices are prone to quite significant short-term movements. Extra demand for housing due to migration, for example, can create supply constraints given the time taken to plan and construct new housing. In New Zealand, the correlation between net migration inflows and house price inflation is striking, as illustrated in graph 3.

Graph 3
Migration and house prices



The price signals given by the housing market thus have to be treated with caution. Compared to markets for financial assets, the housing market is relatively slow to adjust, with long and variable times to close sales, and with, beforehand, much uncertainty about final closing prices, if deals are even reached. Aggregated statistics on house price movements are “noisy” indicators of the future outlook for the housing sector. Past prices are not always a good indicator of future prices. Also, data on residential real estate prices are not always of a high quality.

This can mean that the housing sector is susceptible to over- and under-shooting. Initial one-off increases in house prices may be misinterpreted as increases in a trend, leading to further moves in the same direction, giving an impression

that a major trend shift is underway even if in fact it isn't. Because of the noisiness of the price signals, it can take a long time for this sort of thing to correct. Eventually, as for other types of assets, house prices do correct, either by falling outright, or by prices treading water for years until fundamentals have caught up.

Do recent developments, in light of this susceptibility to over-shooting, imply that the housing market is in such a speculative bubble that an unusual monetary policy response is warranted? In some periods of our history, house prices and rural land prices have both moved through large cycles, both up and down – with the downs more noticeable in real terms (see graph 4). These real declines were sometimes masked by high inflation, which may have fed the false perception in some quarters that house prices never go anywhere but up. In the current low inflation environment, real house price declines as in the past would show up as outright declines in dollar prices.

Graph 4
Property prices



There is no doubt that we have seen quite strong increases in house prices in New Zealand in the last year or so. Some of that is justified by fundamentals, some simply reflects the fact that, in a small economy, with a small housing stock, it does not take much increase in demand to have a big effect on house prices. But some of the recent increases may also reflect excessive exuberance among some investors.

Thus some people today may be incorrectly convincing themselves that level shifts associated with lower mortgage interest rates are in fact shifts in the trend of prices, that house prices only rise, and that someone can always be found who will pay more for a property. For a time, this behaviour

can be price reinforcing, but eventually some unhappy soul will be stuck holding the bag.

There are elements of speculative bubble behaviour present in recent house price developments. While that bodes ill for some individuals, however, it does not seem at this stage to be large enough, or of a character, to generate significant fall-out for the overall economy when the correction happens – as it will.

In terms of potential risks to the economy and to financial stability, a bubble in residential housing is less of a concern than a bubble in commercial property or in the stock market. On average, banks' residential mortgage portfolios are much more stable than other loan portfolios. The historical loan loss on residential lending is very low indeed. Furthermore, recently the Reserve Bank worked with the major retail banks in an exercise that involved simulating a variety of shocks, including, amongst others, large falls in house prices and incomes, a foot and mouth outbreak, large changes to interest rates, the exchange rate and so on. The results of these tests suggest that the New Zealand banking system is well placed to absorb some quite nasty shocks including a large fall in nominal house prices. The current-day New Zealand financial system has particularly prudent lending practices, strong capitalisation, sound asset quality and strong parentage.

To be sure, there are legitimate reasons to be concerned that resources are being misallocated as a consequence of incorrect perceptions about the likely future course of house prices. But in terms of the ideas discussed earlier, the economy-wide scale of resource misallocation and the fall-out from a housing market correction do not appear sufficiently severe to warrant running monetary policy unusually tight above and beyond the requirement to ensure consumer price stability.

The scale of recent house price developments is by no means comparable to the boom and bust in New Zealand equities in the 1980s. Graph 4, below, reminds us of the dramatic bubble in equity prices that was experienced in the second half of the 1980s, when equity prices doubled in one year and halved in the next. This period is a reminder of how substantial shifts away from fundamentals can be, especially with the benefit of hindsight! It defies belief that equity

prices at all times during this period were accurate reflections of the true fundamentals-based value of traded New Zealand companies. The 1980s experience was typical of the bubble phenomenon, as asset prices drifted to levels where they didn't appear to have much connection with the real world, and then eventually they corrected back.

So should the Reserve Bank have tried to head off the share market boom of the mid 80s, so as to avoid the 87 share market crash? That's a really hard call. Monetary policy was already very tight as the Reserve Bank valiantly brought inflation down from very high levels, price stability not being achieved until 1991. To have applied even more pressure probably would have been very difficult. But now, with price stability in place, if our stock market was starting to look like the left hand side of graph 5 then, yes, a Reserve Bank Governor might well say extraordinary measures were required.

Graph 5
New Zealand equity prices



Conclusions

In this talk I have made the following points.

I've noted that, to some extent, monetary policy aimed at keeping consumer price inflation under control automatically takes asset prices into account in terms of their effect on general price inflation. However, even so, sometimes asset price bubbles occur, causing economic damage. I've suggested there are some very limited circumstances where monetary policy should look beyond the immediate inflation outlook and respond more vigorously to asset price developments. I have also noted that this carries risks and is difficult to do. And I've recorded that the New Zealand

housing market currently does not warrant such a severe intervention, so that, for example, yesterday's interest rate increase was just part of the normal operation of monetary policy to ensure continuing consumer price stability.

There's an old adage that a popular central banker is seldom a good central banker. Those in my trade have also been likened to dismal souls that take away the punch bowl just when the party is getting boisterous. A central banker trying

to constrain an asset bubble would certainly not be flavour of the month because everyone loves a bubble on the way up. Still, central bankers are required to think-long term and sometimes that means taking decisions that won't be welcomed at the time but, in the longer-term, are in the public interest.

(Assistance in the preparation of this text was provided by Nils Bjorksten, David Archer and other RBNZ staff.)

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.

DP2004/01

Estimating a time varying neutral real interest rate for New Zealand

Olivier Basdevant, Nils Björksten
and Özer Karagedikli

The interest rate which corresponds to neutral monetary policy settings in New Zealand appears to have trended downwards since at least the stabilisation of inflation in 1992. We present several alternative estimates of a time varying neutral real interest rate (NRR) in state space models, which all show the same declining trend. We then test for a relationship between the Neo-Wicksellian real interest rate gap and future inflation. As in Neiss and Nelson (2003), these two are highly correlated.

NEWS RELEASES

For the record: recent press releases

Waring to Reserve Bank Board

18 December 2003

Dr Marilyn Waring has been appointed to the Reserve Bank Board to replace Ruth Richardson whose term expires on February 3, Finance Minister Michael Cullen announced today.

“Dr Waring’s experience equips her well for the task.

“She is currently Professor of Public Policy at Massey University and has written extensively on the economics of women’s work, equality and human rights. She has also consulted on a range of projects in a number of developing countries.”

Paul Baines, a former Chief Executive of CS First Boston, has agreed to serve a second five year term, beginning on 1 July.

He is a company director whose current directorships include: Fletcher Building Limited; Gough, Gough and Hamer Ltd; EDS (New Zealand) Pension Fund Ltd; Wrightson Ltd; and Telecom New Zealand Ltd.

Other non-executive directors are John Goulter; Arthur Grimes (Chair); Alison Paterson; Ted Thomas; and Hugh Fletcher.

OCR increased to 5.25 per cent

29 January 2004

The Reserve Bank today increased the Official Cash Rate from 5 per cent to 5.25 per cent.

Governor Alan Bollard said “An increase in the OCR appears warranted to ensure that inflation remains comfortably within the target range over the medium term.

“The New Zealand economy has experienced a period of impressive growth over the past two years. But now productive capacity and the labour market are becoming relatively tight. Reflecting this, inflation pressures in some parts of the domestic economy have started to become more apparent. Although falling import prices due to the rising exchange rate have so far kept CPI inflation low, those reductions are unlikely to be sustained. If domestic inflation

is left unchecked, the CPI may start to rise to uncomfortable levels.

“Data since December have pointed to stronger activity than we then thought in areas such as household spending, construction and the housing market, further fuelling inflation. Further inflation pressure is likely in the next few months from areas such as construction costs and energy. Interest rates have been stimulating demand as shown in further solid growth in household credit.

“On balance, these developments strengthen our view, foreshadowed in our December Monetary Policy Statement (MPS), that it is now prudent to begin returning interest rates to levels that will have less stimulatory effects on demand. By historical standards we do not expect that a large adjustment in interest rates will be necessary.

“By raising interest rates now, we hope to avoid having to increase interest rates more aggressively later on.

“The New Zealand dollar has risen sharply, and we are aware that this has placed pressure on the export sector. However, as yet this has not had much effect on spending in the local economy. In time this will happen, probably reducing the need for interest rates to rise as much as they otherwise might. We will need to monitor these trends, and will be reviewing the OCR in early March with the release of our next MPS”.

RBNZ prepared to constrain asset bubbles

30 January 2004

The Reserve Bank today revealed that in rare circumstance it is prepared to adjust monetary policy to constrain extreme asset price bubbles, whereas normally the Reserve Bank is only required to ensure consumer price stability.

In a text prepared for the Canterbury Employers’ Chamber of Commerce, Reserve Bank Governor Alan Bollard said using monetary policy to constrain asset price bubbles was risky, but in an extreme situation “the fallout from the build-up and bursting of very large asset price bubbles warrants taking some risks in an attempt to moderate ... the problem.”

Dr Bollard said that the current run-up in house prices was not so extreme that it warranted an extraordinary response. He said "Yesterday's interest rate increase was just part of the normal operation of monetary policy to ensure continuing consumer price stability."

However, Dr Bollard did say that faced with a repeat of the extreme gains in the share market in the mid 1980s "a Reserve Bank Governor might well say extraordinary measures were required", to avoid the crash that would otherwise follow.

Dr Bollard warned that in that rare situation "Seeking to stabilise rising house prices or an overheated stock market might mean having to force inflation lower than otherwise would be required. It might also mean greater variability in the real economy, interest rates and, potentially, the exchange rate.

"We are talking about circumstances where monetary policy may well have to be quite tight – tighter than if the sole objective was to keep consumer price inflation within the target range. In such circumstances, I expect many audiences would say that the Bank was unnecessarily squeezing growth from the economy."

However, Dr Bollard said the international evidence showed that asset price "booms and busts" sometimes caused substantial damage to households, economic growth and, in rare cases, the financial system.

Trying to constrain a growing asset bubble would not be popular, he said, but central bankers were required to make decisions that were in the public interest.

Reserve Bank orders withdrawal of bank name

13 February 2004

The Reserve Bank has ordered Bank International (also known as Bank International Limited) to stop using the word bank in its name or title. Bank International claims to operate from an office in Auckland, New Zealand and advertises for business on the Internet. Documents using the name of Bank International refer to Mr Shaun G. Morgan as its chairman.

Reserve Bank spokesperson, Paul Jackman, stated that "The notice has been issued because section 64 of the Reserve Bank of New Zealand Act prohibits financial institutions that are not registered as banks from carrying on any activity using a name that includes the word bank, banker or banking. Bank International is not a registered bank in New Zealand nor, as far as we can tell, is it registered in any other country."

Banking registration changes

1 March 2004

The Reserve Bank today announced that it has registered The Bank of Tokyo-Mitsubishi, Ltd. as a bank in New Zealand, and deregistered the Bank of Tokyo-Mitsubishi (Australia) Limited as a bank in New Zealand.

The Bank of Tokyo-Mitsubishi, Ltd. is a Japanese incorporated bank which will operate in New Zealand as a branch conducting the banking activities formerly carried out by a New Zealand branch of its Australian incorporated subsidiary, the Bank of Tokyo-Mitsubishi (Australia) Limited.

As a result, there has been no change to the number of registered banks operating in New Zealand, which remains at 18.

Capacity to intervene in foreign exchange market proposed

11 March 2004

The Reserve Bank has provided advice to the Minister of Finance recommending that, as one of its monetary policy implementation tools, it should have the capacity to intervene in the foreign exchange market to influence the level of the exchange rate.

The Reserve Bank's current stance is to use its foreign exchange reserves to intervene only if the foreign exchange market became "disorderly".

Reserve Bank Governor Alan Bollard said "We have recommended that when the New Zealand dollar is exceptionally and unjustifiably high, the Reserve Bank would be able to use New Zealand dollars to buy foreign exchange, which would put downward pressure on the exchange rate. And, when the exchange rate is exceptionally and

unjustifiably low, we would be able to sell foreign exchange to buy New Zealand dollars, putting upwards pressure on the exchange rate. By unjustifiable, we mean when the exchange rate has moved to a level in excess of that readily explained by the relevant economic fundamentals, which occurs only infrequently. This process is similar to that used for some years by the Reserve Bank of Australia.

“By having this intervention tool, we would generally aim to influence the exchange rate in a direction consistent with maintaining our price stability goal. The addition of intervention as an instrument of monetary policy would also better enable the Bank to meet its Policy Targets Agreement clause 4B commitment, which stipulates that “In pursuing its price stability objective, the Bank ... shall seek to avoid unnecessary instability in output, interest rates and the exchange rate.” That is, at extreme levels of the exchange rate, intervention may be chosen to supplement monetary policy.

“Importantly, such foreign exchange intervention would not be trying to permanently change the long-run exchange rate. And, the New Zealand dollar exchange rate cycle would not be eliminated. At best, we can influence the exchange rate only by small amounts at the extremes of its cycle when it is a long way from economic fundamentals. In doing this there could be financial risks to the Bank, requiring very careful management.

“In recent days we have put these ideas to the Minister of Finance. There is more work and consultation to be done before final decisions can be made or the setting of operational procedures and capacities,” Dr Bollard concluded.

Official Cash Rate unchanged at 5.25 percent

11 March 2004

The Reserve Bank has decided to leave the Official Cash Rate unchanged at 5.25 percent.

Speaking at the release of the Reserve Bank's March 2004 Monetary Policy Statement, Reserve Bank Governor Alan Bollard said “New Zealand has continued to enjoy a period of sustained economic growth over recent years. Partly related to this, inflation pressures have been increasing in a number

of domestic industries, including housing and construction. It is for this reason the Reserve Bank raised the OCR in January. Meanwhile, the overall CPI inflation rate has so far been offset by weak imported inflation due to the rising NZ dollar exchange rate.

“In recent Statements we have projected a slowing in growth which would ease capacity and inflation pressures. This projected growth slowdown is due mainly to the lagged effects of the high New Zealand dollar and an expected slowdown in population growth. With tentative signs becoming more evident in recent weeks, it remains our view that this projected growth slowdown will occur and eventually will reduce the accumulated inflation pressures.

“However, the latest activity indicators remain quite robust. This implies that, in the short-term, there are ongoing risks that the bottlenecks in the economy persist for some time yet. Any persistence in the current inflation pressures could see actual inflation nearing the top of the Bank's target range, raising policy risks. With this uncertainty, we judge it as appropriate at this stage to wait and watch the data, to see whether a further small increase in interest rates will be required this year.”

Background information on the Reserve Bank's proposal to extend the purpose for which it holds foreign exchange reserves

17 March 2004

- 1 On 11 March 2004, the Reserve Bank announced that it had provided advice to the Minister of Finance recommending that, as one of its monetary policy tools, it should have the capacity to intervene in the foreign exchange market to influence the level of the exchange rate. The press statement containing that announcement is attached.
- 2 The following is background information on the Reserve Bank's proposal and what would be required to implement it.

Why is the exchange rate an issue?

- 3 The amplitude of the New Zealand exchange rate cycle has long been a concern. The exchange rate varies across the cycle to a far greater extent than the underlying economic situation warrants. That is, the degree of exchange rate variation goes beyond that which is useful to the economy in terms of absorbing economic shocks and motivating business and household to adjust to lasting changes in New Zealand's external trading situation. Excess exchange rate variation makes engaging in business more difficult, reducing investment and thereby restricting the opportunities for New Zealand's growth. Excessive exchange rate variability can also make the Bank's task of achieving and maintaining price stability more difficult, potentially leading to unnecessary output, inflation and interest rate variability.
- 4 This excess variation is not confined to the New Zealand dollar. It is a feature of floating exchange rates – and indeed the New Zealand dollar is not the most variable exchange rate amongst the developed country group. Nor is it a new issue. But as inflation has been brought down and stabilised around the world, and as a result economies have become more stable overall, exchange rates cycles have not noticeably diminished. Excessive exchange rate variation stands out more obviously in this context as an unresolved issue.
- 5 In response, in the Reserve Bank's 2002/2003 *Annual Report* we stated that one of our priorities for 2003/2004 was to "continue to develop and communicate a better understanding of the implications of the exchange rate and its volatility for economic performance, and policy options to affect the exchange rate". These proposals are a result of that work.

What is the Reserve Bank suggesting?

- 6 The Reserve Bank is proposing that when the New Zealand dollar is exceptionally and quite clearly unjustifiably high, the Reserve Bank could sell New Zealand dollars to buy foreign exchange, in a manner designed to put downward pressure on the exchange rate. Equally, when the exchange rate is exceptionally and clearly unjustifiably low, we could sell foreign

exchange to buy New Zealand dollars, in a manner designed to put upwards pressure on the exchange rate.

- 7 Selling and buying New Zealand dollars might initially seem to involve changing monetary policy by altering the New Zealand money supply. However, it is important to note that the intervention would automatically be "sterilised" to undo the effect on the money supply. This is standard practice internationally.
- 8 In principle, any effect of intervention on the exchange rate would have implications for inflation, and therefore for monetary policy. We do not expect to intervene very often or to be able to alter the exchange rate by a sufficiently large amount to make this a substantial issue. But to the extent that we are able to affect the path of the exchange rate through foreign exchange market intervention, that would be taken into account in our interest rate settings.
- 9 To the extent that intervention was able influence the exchange rate, we would have a small amount of additional capacity to fulfil our *Policy Targets Agreement* obligations. Those obligations are to maintain medium term price stability while avoiding unnecessary variations in the exchange rate and the economy in general. Depending on the circumstances, those obligations could be better fulfilled by a slightly smaller exchange rate cycle coupled with a slightly greater inflation cycle, **or** by a slightly greater interest-rate cycle. The essential points are that:
 - a) To the extent that foreign exchange market intervention can successfully alter the path of the exchange rate, we would have an additional instrument at our disposal that might help us better achieve our *Policy Targets Agreement* obligations.
 - b) The choices we would make in each circumstance would be fully consistent with the *Policy Targets Agreement's* requirement to keep inflation under control.

What the Reserve Bank is NOT suggesting

- 10 There are a number of different types of foreign exchange market intervention that other central banks have used

over the years. Some of these justifiably have a very bad name. We are most expressly **not** suggesting that we attempt those kinds of intervention.

- 11 For example, the Bank will not be attempting to stop the exchange rate moving when economic adjustment would be helped by that movement – we will not be targeting or defending any particular exchange rate. Attempts to defend a fixed exchange rate – including New Zealand's own attempt in 1984 – are very often harmful to the economy, and very costly to taxpayers.
- 12 We will not be attempting to slow or reverse the exchange rate's movement when a large number of investors and traders are convinced that the exchange rate is going to continue to move in the same direction. Where large numbers are convinced, it would be harder to conclude that the exchange rate was clearly unjustifiable in terms of the underlying economic determinants. Nor do central banks have enough money compared with the combined position of the market to make such intervention successful.
- 13 Moreover, the Bank will not be trying to smooth out the day to day, week to week, or even year to year movements in the exchange rate. Such volatility is clearly a nuisance, but businesses can and do deal with that by hedging their currency positions.
- 14 What businesses can't easily deal with are the swings over several years from extremely high to extremely low exchange rates, swings that are out of keeping with changes in the underlying economic situation. The distinctive features of the type of intervention proposed are that:
 - a) It would be limited to the extremes of the exchange rate cycle, when the exchange rate is clearly unjustifiable in relation to the underlying economic drivers; and
 - b) Intervention would be opportunistic, rather than a "come what may" stand in the market against the odds.

How effective would it be?

- 15 Our general assessment is that foreign exchange interventions as proposed can be effective, but that their impact is usually small and possibly temporary. A well conceived and executed intervention strategy can have some impact if it is consistent with the direction of economic fundamentals and relevant policy settings, including monetary policy in particular.
- 16 The economic costs from exchange rate distortions can be significant at the extremes of the exchange rate cycle. Successful intervention would only ameliorate these distortions to a limited extent, but the benefits from doing so might still be considerable. Our view is that there is likely to be a small benefit from intervention aimed at dampening the exchange rate cycle, enough to outweigh the comparatively small risks of implementing the policy.

What are the costs and risks?

- 17 Interventions involve the Bank adopting an exposure to changes in the value of the exchange rate. Such exposures have financial implications when the exchange rate moves, and attendant financial risks.
- 18 The proposed strategy is in fact likely to be profitable to the Reserve Bank over the medium-term, as long as the exchange rate continues to show a cyclical pattern, and the Bank is not forced to exit its positions prematurely. The reasoning behind this is that if the Bank restricts itself to buying foreign currencies when they are extremely cheap relative to the New Zealand dollar, and selling those currencies when they are extremely expensive, profits should accrue. Because swings in the exchange rate take several years, long periods of time might have to pass before those profits can be realised. A central bank has the advantage of time on its side, as it is not driven by a short term profit motive.
- 19 However, in the interim, potentially substantial unrealised gains and losses in foreign exchange trading are probable and must be accounted for. In a policy sense, the main risk is that the Bank might fail to recognise a structural shift in the exchange rate and try to offset it unsuccessfully, sustaining losses as a result. It would be

desirable that any intervention strategy enjoyed multi-party support in Parliament, to minimise the risk that a policy u-turn might cause marked-to-market (accounting) losses to become real losses.

Would this facility have been used in the mid-1990s?

20 We have not performed an exercise of re-running history to see whether intervention as proposed might have been used in the past. Such an exercise is, by its very nature, difficult as there are no rules that can be easily applied to tell us when we would have intervened and when we wouldn't have.

What's required to do this?

- 21 Under the Reserve Bank of New Zealand Act 1989 foreign exchange intervention is allowed for in two different forms.
- 22 Section 16 of the Act provides for the Bank to deal in foreign exchange at its discretion for the purposes of performing its functions and fulfilling its obligations under the Act or any other Act.
- 23 Section 17 provides authority for the Minister of Finance to direct the Reserve Bank to deal in foreign exchange for the purpose of influencing the exchange rate. In this case, a written instruction would be required. Section 17 is available to the Minister at any time, irrespective of whether or not intervention is also carried out under Section 16.
- 24 We believe that use of Section 16 should be preferred in most circumstances. The primary reason is that it would co-exist well with monetary policy objectives (as embodied in the *Policy Targets Agreement*), and the Bank's financial stability objectives. Interventions carried out under Section 16 would have many of the same characteristics as monetary policy decision-making currently. The Bank would be operationally independent, and decisions would be made by the Governor.

What are we asking the Minister, and Parliament for?

25 Given that we propose to make interventions under the

existing Section 16 power, why have we approached the Minister, and why in turn is Parliament to be approached? There are three reasons.

- 26 First, the Bank required additional foreign exchange reserves capacity in order to implement its new intervention policy. Under the Reserve Bank of New Zealand Act, the increase in reserves requires the approval of the Minister of Finance.
- 27 Second, the potential for marked-to-market losses to accrue before profits can be realised implies the need for the Bank to have sufficient financial capacity to absorb those losses in the interim. A capital injection into the Bank will be required to enable the Bank to absorb unrealised, temporary losses arising from intervention. The capital injection will require an appropriation from Parliament during the Budget process later this year. Further, technically-speaking, marked-to-market losses are counted as "expenditure" under the Bank's Funding Agreement. A change in the Funding Agreement is thus required, and Funding Agreements must be ratified by Parliament.
- 28 Third, as already mentioned, financial risks are in large part associated with the risk that marked-to-market losses are forced to be realised before the offsetting gains can accrue. One such situation would be the advent of a future government that withdraws support for the financial capacity provided by a changed Funding Agreement. Multi-party support for the changes is an important component of managing such risks.

What happens next?

- 29 The Minister of Finance has said that Reserve Bank should have the capacity to conduct intervention in circumstances it sees an appropriate. He will be discussing the Bank's proposal with Cabinet.
- 30 Because the Bank would need its reserves and its capital increased the Funding Agreement would need to be amended, and as noted there needs to be ratification by Parliament. A shared understanding on how intervention policy will be conducted would be enunciated in a public letter from the Bank to the Minister of Finance.

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Reserve Bank of New Zealand

2 The Terrace

P O Box 2498

WELLINGTON

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