Exchange rate fluctuations: How has the regime mattered?¹

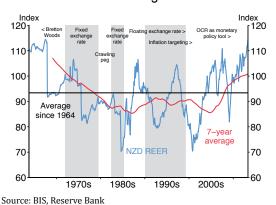
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This article outlines the major features of New Zealand's monetary and exchange rate regimes in recent decades. The focus is on how the real exchange rate has been affected by the changing exchange rate regimes. Some simple statistical analysis suggests little difference in the behaviour of the real exchange rate between the fixed and floating exchange rate period and, importantly, the mean, range and variance of the real exchange rate prior to and since inflation targeting are virtually identical.

1 Introduction

Over the last 50 years New Zealand has employed many different approaches to managing or responding to the exchange rate, and while macro-economic performance over that period has changed markedly, the real exchange rate and its fluctuations over longer periods have displayed surprisingly little change. This article outlines how the exchange rate and monetary management have evolved over recent decades. New Zealand's real exchange rate has fluctuated through wide ranges, but the choice of exchange rate regime or the switch to inflation targeting appears to have made little difference to the behaviour of the real exchange rate.

Figure 1 New Zealand real exchange rate



A longer version of this article was presented at the Reserve Bank/Treasury exchange rate policy forum held

in Wellington on 26 March 2013. Papers presented at that forum are available at http://www.rbnz.govt.nz/research_and_publications/seminars_and_workshops/Mar2013/programme.html

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2 The fixed exchange rate regime

2.1 Exchange rate management

After the Second World War the international exchange rate system was that agreed to at the Bretton Woods Conference in 1944 (that established the IMF) whereby most countries fixed their currency against the USD, which in turn was convertible into gold at a fixed rate. New Zealand did not join the IMF until 1961, but maintained a fixed exchange rate regime throughout, making just two discretionary changes in the 25 years following the war.

Following a series of currency crises and exchange rate realignments around the world in the late 1960s and 1971, a temporary arrangement to restabilise currencies known as the Smithsonian Agreement was established. New Zealand followed Australia's example by initially pegging the dollar to the United States dollar at its previous par value.

The link to the depreciating USD caused the exchange rate to depreciate against other currencies to an uncomfortable degree and in July 1973 New Zealand shifted to a fixed, but occasionally adjustable (at the discretion of the Minister of Finance), exchange rate against a basket of currencies. Discretionary changes were made to the exchange rate on a number of occasions, initially upwards to offset rising foreign inflation but increasingly downwards in response to recurrent balance of payments difficulties.³ Changes to the exchange rate also reflected particular concern about poor profitability in the agricultural sector.

See Appendix for a chronology.

Generally, revaluations and devaluations were made in an effort to maintain competitiveness with Australia. However, sharp fluctuations in the terms of trade and relative inflation rates in the 1970s (see section 2.2) led to increasing concern about the growing frequency of the discretionary (often very large) changes in the nominal exchange rate. New Zealand's average inflation rate was significantly higher than that of most of its trading partners, making any fixed nominal exchange rate progressively less competitive over time. For exporters and importers the uncertainty created by sharp sudden changes in the exchange rate was unhelpful, and given the size of some changes (for example, a devaluation of 15 percent in August 1975) the fear that inflation pressures were being aggravated intensified.

By 1979 it was judged that a more flexible system was appropriate, and a crawling peg was introduced. Under this system the exchange rate was adjusted against a trade-weighted basket by small amounts, sometimes daily, with relative inflation to main trading partners being the main criterion for adjustment. For the duration of this regime the average nominal movement in the currency was a depreciation of 0.5 percent per month.⁴ This regime helped ensure that price differentials alone did not lead to sustained changes in the real exchange rate.

The crawling peg lasted until June 1982 when the Government introduced a wage and price freeze as part of a heterodox approach to markedly reduce the high inflation rate. The nominal exchange rate was again fixed against its basket although was devalued by 6 percent in March 1983 in response to an Australian devaluation.

2.2 What was monetary policy responding to?

Monetary policy and exchange rate management was just one part of an overall bundle of direct policy tools used discretionarily by governments to manage a range of external and domestic pressures, and directed towards desired industrial, social, income, redistribution and growth outcomes.

Unsurprisingly, the REER was a lot more stable during this period, as the adjustment to nominal exchange rate was made to offset inflation differentials.

While New Zealand entered the post-Bretton Woods era at the time of an emerging commodities boom – indeed, the first two adjustments to the fixed exchange rate were revaluations – the high terms of trade were not to last long. The first oil price crisis and the accession of the UK to the European Economic Community (EEC) meant import prices rose strongly and New Zealand faced the prospect of restricted access to some export markets and faced significant new tariff barriers and quota limits in others. The terms of trade dropped sharply in 1975 and would fluctuate around this new low level until about 2005.

A deteriorating terms of trade and loss of main export markets, coupled with increased overseas borrowing, generated increasing current account deficits. Successive devaluations and other measures aimed at increasing export income and reducing demand for imports were insufficient to stem the growing external debt.

Monetary policy itself was used to target many outcomes. At various times the Reserve Bank, as directed by the Minister of Finance, implemented capital controls, set interest rate ceilings for lending and borrowing, set lending limits, set and altered reserve ratio requirements, and required banks and finance companies and other financial institutions to hold certain minimum levels of government securities.⁵

Continuing high levels of trade protection, a growing use of subsidies for exporters, rising government debt and the "Think Big" programme of capital projects to reduce dependence on oil imports were all features of policy during this period.

2.3 Monetary policy implementation and outcomes

The main features of monetary policy implementation during the fixed exchange rate period were the use of directions to financial institutions and markets, including a variable reserve asset ratio applied to trading banks, guidelines (and caps) for lending growth, and, of course, a pegged exchange rate. With interest rates, in real terms, generally held quite low there was a fairly heavy reliance

For a comprehensive overview of past monetary regimes in New Zealand, see *Monetary Policy and the New Zealand Financial System* (1992)

on more direct controls over financial institutions.

Maintaining a fixed exchange rate limited domestic monetary policy discretion, although controls on private capital flows meant that the constraints were very different than those facing a fixed exchange rate system with open financial markets (such as the UK in 1992).

A significant feature of this period was the volatile but typically rapid growth in money supply and credit. Further, there was a close correlation between cycles in private sector credit growth and the deficit in overseas exchange transactions. Periods of buoyant economic activity would be associated with rapid credit expansion, increasing imports and a widening in the current account deficit.

2.4 Setting a fixed exchange rate

Determining whether it was appropriate to change the level of the nominal exchange rate under a fixed regime required a framework for thinking about how relevant influences affected the real exchange rate that would be consistent with New Zealand economic fundamentals. Occasional devaluations and revaluations to the nominal exchange rate were made when the Minister of Finance deemed that developments (including exchange rate adjustments in Australia and the UK) had moved the real effective exchange rate (REER) too far from its appropriate level

The Bank in 1981 noted three methods of determining an appropriate, or equilibrium, REER when setting the exchange rate: purchasing power parity, underlying external payments imbalance (from an estimated equilibrium) and asset market disturbances (Deane 1981).

Divergence of New Zealand's inflation, particularly exporter costs, from the average inflation of its major trading partners meant that the relative PPP approach⁶ highly influenced advice. However, the Bank's concern

about the current account deficit grew over the period and the focus of exchange rate policy shifted toward maintaining external balance.

Imbalances built up gradually, but changes to the nominal exchange rate were infrequent, and hence often quite large, especially given the high and variable rates of inflation at the time. Implementation of the crawling peg led to less volatility in the REER (and the nominal exchange rate) as adjustment to the inflation differentials could be made as a series of small steps: the Reserve Bank reset the nominal exchange rate daily.

2.5 Macro-economic performance

By 1985, New Zealand's GDP per capita had fallen from an average of 110 percent of the OECD average in 1972 to less than 95 percent. Inflation was high and volatile apart from short periods of wage and price freezes in the early 1980s. After negligible unemployment in the 1960s and first half of the 1970s, the registered unemployment rate increased steadily after 1976 to reach 5.7 percent in 1984. These trends continued throughout the structural adjustment phase described in section 3.

The float and structural reform

The New Zealand dollar was floated on 4 March 1985 following the removal of capital controls in late 1984. It has been allowed to freely float since, with only rare and modest intervention from the Reserve Bank since 2007.

The coincident opening of capital markets was also expected to help achieve greater financial market efficiency. Further, the development of domestic monetary policy independence would enable stabilisation of domestic variables such as inflation and interest rates:

"... the changes have been designed to introduce more competition into both the domestic money market and the foreign exchange market, to broaden and strengthen these markets ... and generally enhance

The PPP approach to estimating equilibrium required determining the ratio between New Zealand's prices and those of its trading partners. As then-Chief Economist Roderick Deane noted in 1981 there are several issues with this method, namely determining the appropriate price indices and base period, and the need to project prices several years ahead. Further, the choice of which price indices to use was complicated by the difficulty in distinguishing traded prices and adjusting prices and the REER for the effects of artificial impediments or incentives to trade such as import licensing, export taxes or subsidies. The external payments balance method concentrated on determining the exchange rate consistent with a sustainable future balance of payments level. Practical issues included

determining an underlying balance free of "disturbances of a temporary nature", preparing projections of "normal" current and capital flows and modelling the required exchange rate moves that would be required to reach the estimated equilibrium (with assumed trade elasticities). Deane noted "there are major theoretical and technical difficulties in its use."

Estimating these formally faced the problem of considerable lags on the availability of suitable data.

the efficiency and efficacy of monetary policy." (Deane, 1984)

3.1 Environment leading into the float

In the decade leading to the float the Government borrowed heavily overseas to support domestic demand at a level higher than that compatible with external balance. While this cushioned the country from the full impact of the fall in the terms of trade, it inhibited structural adjustment, and meant a large increase in external debt. Exchange rate adjustments tended to be made later than was required, and usually in large, disruptive steps.

In 1984 the consensus of official opinion was that the real exchange rate was well out of step with its equilibrium. The announcement of the snap election triggered a run⁷ on the exchange rate in the belief that there would be a postelection devaluation (in part because it became known that the Opposition Finance spokesman had indicated there would be if the then-Opposition were elected). Advice from the Reserve Bank and The Treasury to devalue prior to election was not accepted. The foreign exchange market was closed the day after the election in July and remained closed for three days, only re-opening when it was announced that the currency would be devalued by 20 percent. Once foreign exchange markets opened at the devalued rate, the Reserve Bank estimated that the support of the currency (through spot and forward sales) had cost the taxpayer around 2.3 percent of GDP.

If anything the exchange rate became harder to manage post-devaluation. Removal of interest rate controls and progressive liberalisation of capital controls opened New Zealand to large inflows and outflows of capital, complicating domestic monetary management. Over several months the ground was laid for the shift to a floating exchange rate, allowing full domestic monetary autonomy, which was announced on 2 March 1985.8

3.2 Perceived benefits of floating

The Reserve Bank cited the following benefits from floating the exchange rate (Reserve Bank, 1986, Chapter 1):

- Provide appropriate price signals for international traders and capital movements.
- Facilitate the removal of exchange controls and compulsory reserve ratios, increasing the flexibility of financial institutions.
- Remove taxpayer exposure to speculative pressure on the currency.
- Provide a less costly adjustment to external shocks, reducing the extent to which adjustment would have to occur through employment and output, and make more-apparent the extent of imported inflationary pressure.
- Make domestic policy deficiencies more apparent, including through the fact that the exchange rate can be an important indicator of the monetary policy stance.
- Reduce administrative costs.
- Overshooting in the REER would be transparent, through nominal exchange rate moves.
- Domestic monetary policy would be given independence to act, especially with regard to interest rates.
- Control of official debt, as under a fixed exchange rate any balance of payments deficit needed to be financed by official borrowing.

The move to a floating currency was seen as a way to transform New Zealand's balance of payments difficulties, by turning any deficit and consequent pressure on the exchange rate into a market phenomenon to be financed at the market price. The Reserve Bank saw floating the exchange rate, and the removal of exchange and interest rate controls as part of a package of measures that could facilitate structural adjustment.

Capital controls limited the scope for pure private capital flows, but changes in the timing of import payments and export receipts greatly accentuated the pressure during this period.

For a full account of the process leading up to the float see Chapter 8: Exchange Rate Policy Developments in *Financial Policy Reform* (1986)

Financial Policy Reform (1986, pp 131) suggests that floating the exchange rate would enable New Zealand to preserve a balance of payments equilibrium. Indeed, anecdotes from former Reserve Bank employees suggest that some thought at the time that the current account deficit would disappear as a result.

3.3 Post-float structural reform

Following the float of the dollar, the second half of the 1980s and early 1990s saw wide ranging policy reform. ¹⁰ Major reforms included:

- · Deregulation of domestic financial markets.
- Removal of export and producer subsidies, reduction of import tariffs.
- Ending centralised wage bargaining, Employment Contracts Act.
- Corporatisation/privatisation of state-owned enterprises such as rail, forestry, banks, post office, telecoms, energy.
- Removal of barriers to entry/competition in many markets

3.4 Reserve Bank Act 1989

Post-liberalisation the Reserve Bank continued to operate under existing legislation in which formal responsibility for monetary policy rested with the Minister of Finance. In practice the Minister of Finance delegated operational management to the Reserve Bank, hence the passage of the Reserve Bank Act in 1989 did not greatly alter the way the Reserve Bank was running monetary policy at the time. Indeed in some respects the Act formalised the focus since 1984 on reversing the poor inflation record of the previous two decades.

Section 8 of the Act states "The primary function of the Bank is to formulate and implement monetary policy directed to the economic objective of achieving and maintaining price stability." The main features of the Act in relation to monetary policy were:

- a statutory commitment to achieving price stability as the primary function of the Reserve Bank,
- roles of Minister and Governor were clarified, including operational independence for the Bank in conducting monetary policy and requirement for public disclosure of monetary policy actions, and
- reporting and accountability for monetary policy were formalised (ie, Governor to Board to Minister, and Governor to public and Parliament e.g. the *Monetary* Policy Statement).

4 Achievement of price stability to present

Inflation fell within the target band in the first quarter of 1993, a few quarters ahead of schedule. The flexible inflation targeting approach that characterised the early years of disinflation has been followed ever since. Throughout this period the dollar has been floating and there have been no significant controls on capital flows. Reserve powers to undertake foreign exchange intervention have been available to the Minister of Finance and to the Reserve Bank throughout, but only a limited amount of intervention has been undertaken, and only since 2007. The method of implementing monetary policy took longer to evolve.

4.1 The TWI comfort zone

Within the first few years the Reserve Bank settled on an operating model in which the amount of settlement cash made available to settlement banks was the main instrument, and monetary policy indicators were yield gaps (between short and long rates), 90-day rates, and the TWI. The target level of system liquidity was maintained by offsetting projected government cash flows and currency transactions through open market operations.

The Reserve Bank's preference was for the market to make corrections to financial market conditions and it was reluctant to take a strong view on any financial prices (interest rates or exchange rates). This stance gradually proved untenable.

From 1988/89, monetary policy was implemented within a framework of "comfort zones" the most important of which was typically that for the TWI. With each inflation forecast the Reserve Bank calculated the boundaries the TWI could move to without inflation departing from the target range (accounting for the then quite large estimated direct pass through of the exchange rate to domestic consumer prices). While the thresholds were not published, they were calculable with some confidence using the Reserve Bank's published estimates of exchange rate pass-through. When the TWI approached one of the thresholds, financial markets would respond with offsetting interest rate movements, limiting the need

Dalziel and Lattimore (2004) covers the reforms in more detail with an extensive bibliography for the economic history of this period.

for direct monetary response by the Reserve Bank. From time to time statements ("open mouth operations") or adjustments to the settlement cash targets were deployed.

Comfort zones were also used for other variables, but the TWI zones were typically the most important. A feature of the comfort zone period was relatively low short-term volatility in the TWI, though 90-day rates exhibited quite high levels of volatility by international standards.

4.2 The Monetary Conditions Index (MCI)

The introduction of the MCI¹¹ in June 1997 was in some respects an extension of the comfort-zone system, whereby the Reserve Bank tried to condition financial markets to look at the monetary conditions consistent with the inflation target, this time treating exchange rate and interest rates together. One perception of the TWI comfort zone was that it put a floor under the exchange rate and enabled investors in New Zealand dollars to make one way bets with no risk.

Pronouncements on target values of the MCI were made quarterly. The threat of central bank intervention in the overnight interest rate market ensured that the market delivered a 90-day interest rate consistent with the Reserve Bank desired monetary conditions (determined at the *Monetary Policy Statement*) and the prevailing exchange rate.

The aftermath of the Asian crisis (coupled with successive droughts in agricultural regions) spelled the end for the MCI. With hindsight the bands were set far too tightly and sharp moves in the exchange rate engendered huge volatility in short-term interest rates. And when the exchange rate fell sharply as real conditions weakened, the Reserve Bank was slow to reduce its target MCI, resulting in a sharp increase in 90-day rates at a time when both external and domestic demand was falling.

4.3 Introduction of the OCR

The Reserve Bank abandoned the MCI, and settlement cash targets, in March 1999, introducing a more conventional approach, directly setting a short-term interest rate, the Official Cash Rate (OCR). The OCR was to be set at regular intervals eight times per year, in scheduled public announcements made each quarter at the release of the *Monetary Policy Statement*, and once between each two *Statements*.

4.4 Intervention

In 2004 (following extensive research over several years, but as the dollar was rising fast from historic lows) the Reserve Bank and the Minister of Finance signed a Memorandum of Understanding outlining conditions for exchange rate intervention for reasons other than countering "extreme disorder". Work on intervention policy had gone hand in hand with a review of reserve holdings and the Reserve Bank began to hold more reserves (Orr 2004 and Eckhold and Hunt 2005).

As part of the process for deciding on exchange rate intervention, the Reserve Bank released a set of criteria under which intervention could be undertaken. It stated that for intervention to occur, the currency level must be exceptional and unjustified. Further, any intervention must be opportune and likely to be effective, and be consistent with current stance of monetary policy.¹²

The first round of intervention in June 2007 had an immediate impact on the exchange rate lasting several days. The Reserve Bank noted at the time that it created "doubt in the market about the future direction of the exchange rate" and "sent a signal to the market that the Reserve Bank was concerned about the high value of the New Zealand dollar". Nevertheless, the exchange rate remained high, with respite only coming from the global financial crisis when "risky" currencies such as the New Zealand dollar were sold off heavily.

The MCI was an index combining 90-day rates and the TWI to develop a summary measure of monetary conditions in the economy, with changes based on relative effects on inflation and aggregate demand of the two components. Short-term interest rates (proxied by the 90-day rate) were judged (empirically) to be twice as influential as the exchange rate and hence the ratio was 2:1. The Reserve Bank set 'tolerance bands' around the projected path of monetary conditions (based on the projections for the TWI and 90-day rates). For more see http://www.rbnz.govt.nz/monetary_policy/about_monetary_policy/0096178.html.

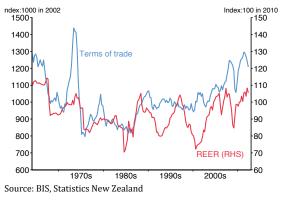
The Reserve Bank does not typically comment publicly but releases its net purchases and position each month with a month lag.

Implications 5

Considerable changes have taken place in exchange rate and monetary management in New Zealand over the past 50 years. But what difference have they made to, in particular, the behaviour of the real exchange rate? Different exchange rate and monetary regimes appear not to have significantly affected the REER's overall behaviour. Indeed short-term measures to alter the nominal exchange rate in order to assist tradable sectors appear to have had little lasting effect on the REER. Targeting lower volatility in the nominal exchange rate has often meant volatility appears elsewhere in the economy.

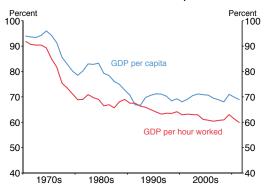
Over the past 50 years the REER has moved generally in the direction one would expect from terms of trade movements alone (figure 2). The long, if bumpy, decline in the terms of trade from the 1950s to around 1986 was matched by a steady downward trend in the REER. However, over the next 20 years the REER was roughly flat while the terms of trade stepped up slightly at the beginning of the period, before flattening off at a level higher than that suggested by the previous relationship with the REER. But if the swings in the exchange rate reflect to some extent swings in the terms of trade, what the REER has not done is reflect the full extent of the decline in relative productivity or incomes over the full period (figure 3).

Figure 2 Terms of trade and the real exchange rate



From about 2005 the upward trend in the terms of trade has once again been matched by an upward shift in the REER. Perhaps this is due to the latest move being seen as a permanent shift upwards in the relative price of commodities, allied to the increasing wealth in the east Asian area.

Figure 3 New Zealand relative economic performance



Source: New Zealand relative to the simple average of the highest 17 OECD countries in terms of GDP per capita and GDP per hour worked (in constant 2005 PPPs).

OECD

Looking at the exchange rate performance in the pre-inflation targeting era and since inflation targeting, it is not apparent that the main statistical properties of the REER have changed. The median is almost identical in the two periods while the mean, range and shape of the distribution is also very similar.

The data in table 1 suggest that neither the exchange rate regime (comparing the various fixed rate systems versus floating) nor the presence of inflation targeting has made much difference to the characteristics of the REER. In many respects, that should not be too surprising. The real exchange rate is a real phenomenon, ultimately determined by the structural characteristics of the economy, while monetary policy and nominal exchange rate tools only affect the real exchange rate in the short term.

This is, of course, quite simple analysis only. Often fluctuations in the REER will reflect fluctuations in macro fundamentals. Sometimes, as with the terms of trade, such fundamentals can be quite variable and at other times quite stable. But what this analysis does remind us of is that even in periods with a fixed nominal exchange rate the real effective exchange rate can prove quite variable. It also provides little or no prima facie reason to think that different exchange rate regimes have made much systematic difference to the behaviour of the real exchange rate (at least at horizons beyond a month or so).

Table 1
Analysis of NZD REER

	NZD Real Effective Exchange Rate (monthly. Index = 100 in 2010)				
	Full sample	Fixed	Floating	pre-Inflation	Inflation
				targeting	targeting
mean	93.7	94.7	92.8	94.3	92.9
median	93.0	92.7	93.5	92.9	93.4
maximum	114.5	114.5	114.5	114.5	114.5
minimum	70.3	70.3	70.4	70.3	70.4
standard deviation	9.9	10.3	9.5	10.0	9.8

References

Bollard, A (2008) 'Flexibility and the Limits to Inflation Targeting', http://www.rbnz.govt.nz/research_and_publications/speeches/2008/3369044.html

Brash, D (2002) 'Inflation targeting 14 years on', Speech to American Economics Association, Atlanta

http://www.rbnz.govt.nz/research_and_publications/speeches/2002/0114682.html

Dalziel, P. and R. Lattimore, (2004), *The New Zealand Macroeconomy*, Oxford University Press

Deane, R. (1981). 'Reflections on Exchange Rate Policy', RBNZ *Discussion Paper* G81/18

Deane, R. (1983). 'Recent Developments in the New Zealand Foreign Exchange Market'. Address to the Centre for Money, Banking and Finance, Macquarie University, Sydney,

Eckhold, K. and C. Hunt (2005) 'The Reserve Bank's new foreign exchange intervention policy', Reserve Bank of New Zealand *Bulletin*, 68(1), March

Orr, A (2004) 'Reserve Bank's exchange rate intervention proposal', speech to Meat New Zealand Annual Conference.

Reserve Bank of New Zealand (2000), 'The evolution of monetary policy implementation', http://www.rbnz.govt.nz/monetary_policy/about_monetary_policy/0096178.html Reserve Bank of New Zealand (1992), *Monetary Policy and the New Zealand Financial System*.

Reserve Bank of New Zealand (1986), Financial Policy Reform, Wellington

Sherwin, M (1999) 'Inflation targeting 10 years on', speech to NZAE Conference. http://www.rbnz.govt.nz/research_and_publications/speeches/1999/0077458.html

Appendix A A chronology

1967

November – NZD devalued by 19.5 percent against the USD.

1971

December – end of Bretton Woods peg to gold. NZD remains pegged to USD at previous par.

1973

July – NZD revalued by 3 percent. NZD no longer pegged to USD (in future pegged to a trade-weighted basket).

September – NZD revalued by 10 percent to insulate against foreign inflation.

1974

September – NZD devalued by 9 percent against all currencies except AUD following decision by the Australian Government to devalue by 12 percent

1975

August - NZD devalued by 15 percent.

1979

June – NZD devalued by 5 percent, and crawling peg introduced whereby smaller, more frequent changes of less than one-half of one percent would be made unannounced. Forward exchange contracts were introduced for USD. Reserve Bank would set premium or discount.

1982

June – Steady devaluation of NZD under crawling peg was suspended as Government imposed 12-month wage and price freeze. Freeze also applies to interest rates, dividend rates, directors' fees and professional charges.

1983

March – NZD devalued by 6 percent against the basket of currencies, in response to AUD devaluation of 10 percent. August – Reserve Bank quotation of a fixed daily USD exchange rate ceased. Quoted rate would be allowed to vary in a band in line with market forces. Reserve Bank would no longer participate in forward market.

1984

June – Reserve Bank re-enters forward exchange market, reflecting concern over likelihood of upcoming devaluation.

July – NZD devalued by 20 percent following election of a new government (and three days of foreign exchange market being closed). Controls on lending and deposit interest rates removed.

November – Abolition of overseas borrowing controls.

December – Controls on outward and inward foreign exchange capital transactions removed.

1985

March – NZD floated. Reserve Bank indicated it would remain in the market to meet New Zealand Government requirement for foreign exchange, and to smooth movements if undue volatility occurred.

1988/89

Comfort zones approach introduced.

1989

December – Reserve Bank of New Zealand Act passed, effective 1 February 1990. The Act defined price stability as the objective of monetary policy and made many significant changes in the function, operation and structure of the Bank.

1990

March – First Policy Targets Agreement signed, formalising 0-2 percent annual CPI as an operational definition of price stability, to be achieved by December 1992.

April – Reserve Bank issues first *Monetary Policy* Statement.

1997

June – Reserve Bank introduces MCI approach to monetary policy implementation.

1999

February – Reserve Bank announces change to implementation of monetary policy in order to simplify process. From March the Reserve Bank will announce Official Cash Rate (OCR), reviewed every six weeks in public announcements.

December – new PTA is signed with new government. Major change is directive to avoid unnecessary instability in output, interest rates and the exchange rate while maintaining the primacy of the statutory price stability objective.

2004

March – Reserve Bank and Minister of Finance sign MOU on foreign exchange intervention framework

2007

June – Reserve Bank confirms it has intervened in foreign exchange market to sell NZD.