

New Zealand History of Monetary and Exchange Rate Regimes

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Abstract

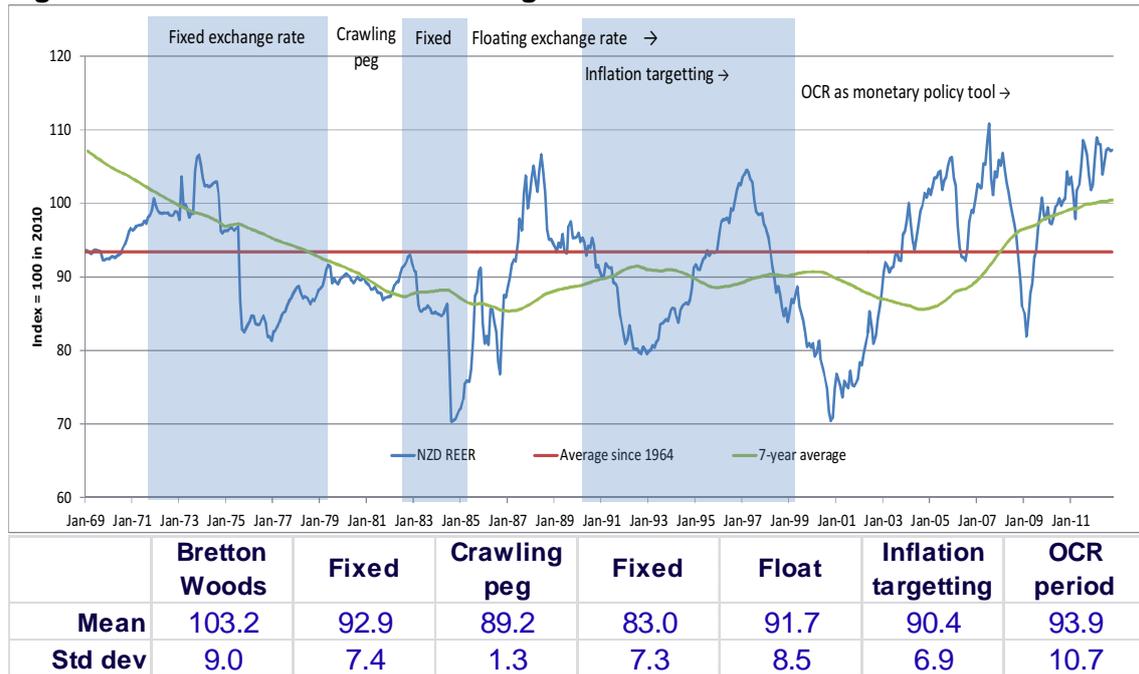
This paper outlines the major features of New Zealand's monetary and exchange rate regimes. The focus is on the real exchange rate and how changes to the exchange rate regime affected its performance over the last 40 years. It appears the statistical characteristics of the real exchange rate's distribution over longer periods changed little with changes in exchange rate regime, and importantly the mean, range and variance of the real exchange rate prior to and since inflation targeting are virtually identical. Regardless of the exchange rate system employed, the real exchange rate appears to have been more dependent on traditional economic drivers such as the terms of trade, relative economic performance and inflation outcomes.

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<http://www.rbnz.govt.nz/research/workshops/Mar2013/programme.html>.

1. INTRODUCTION

Over the last 40 years New Zealand has employed nearly every major form of exchange rate regime possible, and while the macroeconomic performance over that period has changed markedly, the real exchange rate's level and movements over longer periods have displayed surprisingly little change. New Zealand's real exchange rate has fluctuated in large cycles over the last 40 years, but the choice of exchange rate regime, or more correctly, the presence of inflation targeting makes little difference to the behaviour of the real exchange rate.

Figure 1 – New Zealand Real Exchange Rate



Source: BIS

This paper looks at the Real Effective Exchange Rate's (REER) movements and the contemporary policy focus. We split the post-Bretton Woods² period into three parts. That is:

- the fixed exchange rate period (1973-1984) where authorities tried to maintain a level of the exchange rate and maintained some control over cross border capital flows;
- the float, the environment and events that led to the float of the NZD plus the period of structural reform that followed (1985-1991); and
- the price stability period (1992-present) where monetary policy has largely been directed towards inflation targeting, without capital controls or exchange rate intervention.

² Bretton Woods was the international exchange rate system prevailing from 1945 to 1972 whereby countries fixed their currency against the USD, which in turn was convertible into gold at a fixed rate.

2. THE FIXED EXCHANGE RATE REGIME

2.1 A bit of exchange rate history

Following a series of currency crises and exchange rate realignments around the world in the 1960s and 1971, a temporary arrangement to restabilise currencies known as the Smithsonian Agreement was established³. New Zealand followed Australia's example by initially pegging the dollar to the United States dollar at its par value. Despite the arrangement, exchange rate pressures persisted and 19 currencies, including sterling, were floated in June 1972. The United States maintained its relationship to the gold price with successive devaluations until March 1973 when it was also floated.

The link to the depreciating USD caused the NZD to depreciate against other currencies to an uncomfortable degree and in July 1973 New Zealand terminated the link to the USD and shifted to a fixed, but occasionally adjustable⁴, exchange rate against a basket of currencies. Discretionary changes were made to the NZD on a number of occasions, initially to dampen the effects in New Zealand of foreign inflation but increasingly in response to recurrent balance of payments difficulties largely due to large increases in the current account deficit⁵. Changes to the NZD also reflected particular concern about poor profitability in the agricultural sector. Further, they were often predictable and thus build-ups in speculative activity often preceded an adjustment.

Generally, revaluations and devaluations were made in 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 appropriateness of the discretionary nature of (often very large) changes in the nominal exchange rate. For exporters the uncertainty created by sharp sudden changes in the NZD 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. Further, New Zealand's average inflation rate was significantly higher than that of its trading partners, making a given nominal exchange rate less competitive over time.

By 1979 it had become apparent that a more flexible system was needed, and a crawling peg was introduced. Under this system the NZD was adjusted against a trade weighted basket by small amounts, sometimes daily, with relative inflation to main trading partners being the main criteria for adjustment. For the duration of this regime the average nominal movement in the currency was a depreciation of 0.5 percent per month⁶.

³ Any IMF member country was permitted to maintain margins for its currency of 2.25 percent around the cross rate of the par values of that country's currency and its "intervention currency". The USD was New Zealand's intervention currency and par was NZD1 = USD 1.1952

⁴ This differs from a crawling peg in that adjustments are not intended to be made but when they are made they tend to be large discrete movements. A crawling peg assumes adjustments will be made, and these will be regular and small en route to a target.

⁵ See Appendix for timeline of monetary policy actions.

⁶ Unsurprisingly, the REER was a lot more stable during this period, as the adjustment to NEER was made to offset inflation differentials.

The crawling peg lasted until June 1982 when a wage and price freeze was introduced to try to bring inflation down from a high rate. The RBNZ, under direction from the Minister of Finance, reverted to fixing the exchange rate against its basket with occasional discrete adjustment. The NZD was devalued by 6 percent in March 1983 in response to an Australian devaluation and 20 percent in June 1984 as it became apparent that maintaining the level of the NZD was unsustainable⁷.

2.2 What was monetary policy responding to?

Overall, monetary policy was but one tool in an overflowing box of policies directed towards desired industrial, social, income, redistribution and growth outcomes in the face of a range of both external and domestic pressures.

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 lost 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 around 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 current account blowouts.

In response to poor farmer incomes a variety of measures were introduced including exchange rate adjustment, minimum price guarantees and greater use of non-interest-bearing producer board financing. High fuel costs were tackled with an extensive capital investment programme focussed on attaining self-sufficiency in energy. At the same time unemployment was rising and social welfare, such as superannuation, became more generous.

As well as exchange rate control to aid the export industry and/or address balance of payments issues, monetary policy was attempting to control the cross-border flow of capital and credit growth. At various times the RBNZ, as directed by the Minister of Finance, implemented capital controls, set interest rate ceilings for lending and borrowing, abolished interest rates for on-call deposits, set lending limits, set and altered reserve ratio requirements and required banks and finance companies to hold certain levels of government stock.

As the exchange rate regime became more flexible through this period, more market-based initiatives were introduced across the economy including removing import licences (and replacing with a tariff based system) and allowing market participants other than trading banks to apply for foreign exchange dealer licences.

2.3 Monetary policy implementation and outcomes

The main features of monetary policy during the fixed exchange rate period were:

⁷ In that the level of foreign reserves was being depleted to the extent that maintaining any desired level could not be achieved.

- A variable reserve asset ratio applied to trading banks (other financial institutions were required to hold a certain ratio of public sector securities).
- Determination of interest rates on government debt, with tendering for government bonds not starting until 1983.
- Open discount policy whereby the RBNZ offered to buy (or sell) government paper of any maturity on demand at a penal (to the counterparty) discount margin.
- Direct controls over domestic interest rates at times (such as 0% interest on call deposit accounts).
- Guidelines for lending growth by financial institutions, including caps at some stages.
- Comprehensive exchange controls on outward capital movements, and short term inward capital movements.
- A pegged exchange rate, the maintenance of which meant monetary policy was not free to set domestic interest rates, because intervention to offset pressure on the exchange rate's level involved buying or selling New Zealand dollars, altering the money supply.

In addition, only trading banks were authorised to trade in foreign currency with some small exceptions for travel funds and personal remittances (though this was relaxed later in the period as mentioned above), inward capital flows were controlled and foreign portfolio investment was largely prohibited. Forward exchange contracts were allowed from June 1979.

Monetary control in this period developed around the Government's low interest rate policy and monetary conditions ebbed and flowed with fiscal policy. Interest rates on government securities were often held below market rates and sales to institutions outside those with required holding ratios were very small (aside from occasional very big issues aimed at the retail market). Injections into an institution's reserves needed to be offset by increasing reserve requirements, effectively tightening monetary policy while holding interest rates low. However, a government desire not to restrict lending for housing meant limits on financial institutions from increasing their balance sheet were implemented rarely.

A significant feature of this period was highly volatile growth in money supply and credit, with a high average rate. Further, there was 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 deterioration in the current account.

2.4 Setting a fixed exchange rate

Determining the appropriate level of the nominal exchange rate under a fixed regime required estimating some measure of the equilibrium or target real exchange rate. Occasional devaluations and revaluations to the nominal exchange rate were made when it was deemed the REER had moved too far from its equilibrium level. For a

given target or equilibrium REER, knowledge of relative costs of production and consumption were needed to make sensible estimates for where the NEER should be.

Implementation of the crawling peg meant these calculations had to be made with some degree of precision. Nonetheless, it did lead to less volatility in the REER (and the NEER), as adjustment to equilibrium could be made as a series of small steps: the RBNZ reset the price of the NZD daily.

Obviously this involved dealing with considerable lags on the availability of suitable price data. Using a fixed exchange rate meant that changes to the NEER could be made once the REER was deemed to be significantly away from equilibrium. Hence changes were generally infrequent and large, especially given the high and variable rates of inflation at the time.

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

The New Zealand system rested heavily on the relative PPP approach but with some importance placed on the balance of payments situation⁸. Changes to the exchange rate were made based on the divergence of New Zealand's inflation, particularly exporter costs, from the average inflation of its major trading partners. However, the RBNZ's concern over the current account deficit grew over the period and the focus of exchange rate policy shifted toward maintaining external balance.

The RBNZ did state on introduction of the crawling peg that their attempts to move the exchange rate were in line with PPP and long term shifts were considered to be also in line with achieving a desired current account balance. However, they warned that there needed to be co-ordination of monetary and fiscal policy to achieve long term aims. Further, structural change and/or a long term shift in the terms of trade could shift the equilibrium exchange rate and needed to be taken into account.

2.5 Macroeconomic performance

By 1985, New Zealand's GDP per capita had fallen from an average of 110 percent of OECD in 1972 to less than 95 percent, and continued on a downward trajectory through the reform period. Inflation was high and volatile apart from short periods of

⁸ 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 indexes and base period, and the need to project prices several years ahead. Further, the choice of which price indexes 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."

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.

3. THE FLOAT AND STRUCTURAL REFORM

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

A floating exchange rate was considered crucial to facilitate structural adjustment to achieve a better competitive position and to preserve balance of payments equilibrium. Reasoning at the time was that floating the exchange rate would allow the economy to adjust to external shocks through market based mechanisms. According to the RBNZ (1986) “The process of structural adjustment ... is likely to be more costly in terms of lost output and employment with a fixed exchange rate than a float.”

The coincident opening of capital markets was expected to assist in the achievement of financial market efficiency. Further, the development of domestic monetary policy independence would enable stabilisation of domestic variables such as inflation and interest rates. Deane noted in his speech to a conference at the Federal Reserve Bank of San Francisco in 1984:

“... 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[e] the efficiency and efficacy of monetary policy.” (Deane, 1984)

3.1 Environment leading into the float

In the decade leading to the float successive New Zealand governments borrowed overseas to support domestic demand at a level higher than that compatible with external balance. While this cushioned the country from its relatively lower real incomes it inhibited structural adjustment, meaning the pressures on the external accounts grew significantly. The experience of the fixed rate regime showed that exchange rate adjustments tended to be made later than was required, and usually in large, disruptive steps. Further, as noted above it was difficult to assess even ex post whether the adjustment had been right.

Speculative activity on the currency would often increase in the lead up to a change in the exchange rate. This generally provided large windfall gains to the speculators at the expense of the taxpayer. Under a floating arrangement any speculative gains come at the expense of other market participants.

In 1984 it became obvious that the exchange rate was well out of step with its equilibrium, and devaluation was imminent. The incentive was for market participants to sell NZD prior to its devaluation with the expectation of being able to buy back the currency at its cheaper, post-devaluation rate. In buying NZD to maintain the value of the NZD in the face of the large-scale sale of New Zealand dollars, the Reserve Bank outflow of funds ran down foreign exchange reserves to such an extent that unforeseen changes in the timing of overseas payments, coupled with the Finance Minister’s

refusal to devalue close to an election, caused a foreign exchange “crisis”. Because of these pressures, the foreign exchange market was closed the day after the election in July and remained closed until shortly after the new Government took office, when it devalued the currency by 20 percent⁹.

The new Government had decided that the fixed exchange rate system had become inappropriate. When, in early 1985, there was renewed pressure from foreign exchange outflows, the decision was made to float the currency in March.

Prior to floating, the RBNZ had recognised that the financial sector needed to be prepared to operate under a floating regime, or even in a less regulated financial environment. From late 1983 measures were undertaken to prepare market participants. First, an increase in the number of institutions that could apply for foreign exchange licences was legislated, allowing for sufficient depth and liquidity to develop. To help develop expertise and capacity in the lead up to the float, foreign owned institutions were allowed to become foreign exchange dealers and exchange controls were lifted in late 1984. In the 18 months prior to the float turnover in the NZD spot market grew by five times, buy/sell margins narrowed significantly, and the market became able to transact large parcels without difficulty. Once the new Government had decided that the currency should be floated, the RBNZ was comfortable that sufficient policy and institutional arrangements were in place to accommodate the float.

3.2 Perceived benefits of floating

The RBNZ gave the following reasons for floating the exchange rate (Deane 1986):

- 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.

⁹ The announcement of the snap election triggered a run on the NZD in the belief that there would be a post-election devaluation (largely because the Opposition Finance spokesman said there would be if the then-Opposition were elected). Despite RBNZ advice to devalue prior to election the Government insisted the NZD be supported, which it did through issuance of forward contracts that slowed the outflow. Once foreign exchange markets opened at the devalued rate the RBNZ estimated the support of the currency had cost the taxpayer around 2.3 percent of GDP.

- 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 it into a phenomenon driven by markets, and to which markets could react¹⁰. The RBNZ 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. Further, the process of supporting a fixed exchange rate was often at odds with monetary policy objectives and "generated an enormous amount of administrative work for the RBNZ." (Deane 1986)

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, ending with the Fiscal Responsibility Act of 1994. During the process of reform economic performance continued to falter, though since the trough of the early-90s recession New Zealand has arrested its slide against the OECD average of GDP per capita.

Major reforms included:

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

3.4 Reserve Bank Act 1989

The passage of the Reserve Bank Act in 1989 did not alter the way the RBNZ was running monetary policy at the time. Indeed the Act mostly legislated the practice the RBNZ had been allowed to adopt since the float of the dollar. However it did enshrine the idea of inflation targeting, and the consequent Policy Targets Agreement defined what price stability would be and how it would be measured and maintained.

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,
- price stability became the sole objective of monetary policy,

¹⁰ *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 RBNZ employees suggest many thought at the time that the current account deficit would disappear as a result.

- roles of Minister and Governor were clarified, including operational independence of monetary policy and requirement for public disclosure of monetary policy actions, and
- reporting and accountability for monetary policy were formalised (i.e Governor to Board to Minister, and Governor to public and parliament e.g. the Monetary Policy Statement)

Price stability was interpreted to be growth in annual consumer prices of 0 to 2 percent¹¹ and this was the target agreed to in the first Policy Targets Agreement (PTA) signed in March 1990. Effectively this policy was being followed from before the introduction of the Act, though it took a major recession to finally achieve price stability and provide the inflation outcomes to lower inflation expectations¹².

Initially the RBNZ implemented monetary policy by controlling aggregate amounts of settlement cash, with the use of an official interest rate (the OCR) not commencing until 1999.

4. ACHIEVEMENT OF PRICE STABILITY TO PRESENT

Price stability was achieved prior to the time limit set in the contemporary PTA with headline inflation reported within the target band in the first quarter of 1993. Early on in the inflation targeting regime New Zealand was characterised as a 'strict' inflation targetter, though as inflation expectations settled closer to the target New Zealand has become a 'flexible' inflation targetter (Bollard 2008).

Throughout this period the dollar has been floating. 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 throughout, but only a limited amount of intervention has been undertaken since 2007. Monetary policy has been very conventional throughout this period, with the only major developments being the method of implementation.

4.1 The TWI comfort zone

The RBNZ's main policy lever was initially the amount of settlement cash made available to trading banks, and monetary policy indicators were yield gaps (between short and long rates), 90-day rates, and the TWI. The aim was to maintain a target level of system liquidity by offsetting projected government cash flows and currency transactions through open market operations. If the RBNZ wanted to withdraw (inject) liquidity from the system, the RBNZ would sell (repurchase) Treasury Bills. The RBNZ stressed repeatedly that the interest rates it accepted at any time in these facilities did not indicate its policy intentions.

¹¹ Consumer prices were to be represented by the CPI in the policy targets agreement, but were not taken to be the sole indicator of inflation by the RBNZ at the time. It would seem the RBNZ was already considering the pitfalls of targeting headline inflation well before price stability was achieved.

¹² The initial target date of reaching price stability by the year ended December 1992 was met, though by that time the PTA had been amended – within 9 months of its original signing – to extend that target date by a year.

The RBNZ's preference was for the market to make corrections to monetary conditions and was reluctant to take a strong view on any financial prices (interest rates or exchange rates). This stance proved untenable while retaining the settlement cash instrument.

Monetary policy was conducted within a framework of "comfort zones" typically the most important of which was the TWI. With each inflation forecast the Reserve Bank calculated the extreme values the TWI could move to without inflation departing from the target range (accounting for then quite large estimated direct pass through of tradable prices). While the thresholds were not published, they were calculable with some confidence using the RBNZ's published estimates of exchange rate pass-through. The idea was that when the TWI approached one of the endpoints, financial markets would respond with offsetting interest rate movements, pre-empting any need for direct monetary response by the RBNZ. From time to time statements ("open mouth operations") on adjustments to the settlement cash targets were deployed.

If the RBNZ's inflation forecast changed materially between publications, so would the TWI comfort zone¹³. Publication dates of forecasts were not changed from the schedule, however, and the market would have to discern the RBNZ's new forecast from various on-the-record pronouncements.

A feature of the comfort zone period was relatively low short-term volatility in the TWI, though 90 day rates exhibited very high levels of volatility, by international standards

4.2 The Monetary Conditions Index (MCI)

The introduction of the MCI¹⁴

in June 1997 was essentially an extension of the TWI comfort-zone, whereby the RBNZ tried to condition financial markets to look at the monetary conditions consistent with the inflation target as determined by the mix of exchange rate and interest rates. One perception of the comfort zone was that it put a floor under the exchange rate and enabled investors in NZD to make one way bets with no risk. This change to an MCI obfuscated the monetary mix somewhat as the exchange rate and interest rates affect inflation with different, and varying, lags. Nevertheless, one motivation for the MCI was to increase transparency in the signalling of the RBNZ's preferred monetary policy mix.

Pronouncements on target values of the MCI were made fairly frequently, and were not tied to *Statement* publication windows. The threat of central bank intervention in the overnight interest rate market ensured that the market delivered a 90-day interest rate consistent the RBNZ desired monetary conditions (determined at the Monetary Policy Statement) and the prevailing exchange rate.

¹³ The RBNZ generally published a technical assumption of a flat TWI projection. However, in June 1994 it forecast a constant real effective exchange rate, implying a rising nominal TWI and therefore tighter monetary conditions, while forecasting lower inflation.

¹⁴ 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 RBNZ 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/monpol/review/0096178.pdf>

The aftermath of the Asian crisis (coupled with successive droughts in agricultural regions) spelled the end for the MCI. The NZD fell sharply and the RBNZ was slow to reduce its target MCI resulting in a very sharp increase in 90-day rates at a time when both external and domestic demand was falling.

4.3 Introduction of the OCR

The RBNZ abandoned the MCI, and settlement cash targets, in March 1999, introducing a more conventional price-of-money target, the Official Cash Rate (OCR). The OCR + 25 basis points (- 25 basis points) was the rate that banks would pay (receive) for overnight balances in the system.

Then OCR was to be set at regular intervals 8 times per year, in public announcements made each quarter at the release of the *Monetary Policy Statement*, and once inter-quarter between each two *Statements* at set OCR announcement dates. The OCR was initially set at 4.5 percent in response to the weak activity levels following droughts and the Asian crisis. Indeed, 90-day rates had fallen from over 7 percent following announcement of the new measure, in anticipation of this.

4.4 Intervention

In 2004 (as the dollar was rising fast from historic lows) the RBNZ and the Minister of Finance signed a Memorandum of Understanding outlining conditions for exchange rate intervention. This prompted a review of reserve holdings and the RBNZ began to hold more reserves (Orr 2004 and Eckhold and Hunt 2005).

As part of the process for deciding on exchange rate intervention, the RBNZ released a set of criteria under which intervention could be undertaken. It stated 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 monetary policy objectives. These are high hurdles to jump and to this date significant intervention has only occurred in June 2007 though there have been other occasions of smaller market activity.

The first round of intervention had an immediate impact on the exchange rate lasting several days. The RBNZ 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 RBNZ was concerned about the high value of the New Zealand dollar." Nevertheless, the NZD remained high, with respite only coming from the global financial crisis when 'risky' currencies such as the NZD were sold off heavily. Since then the NZD has regained the levels of 2007 and appreciated even further. The REER is at a similar level to that prevailing at the time of intervention.

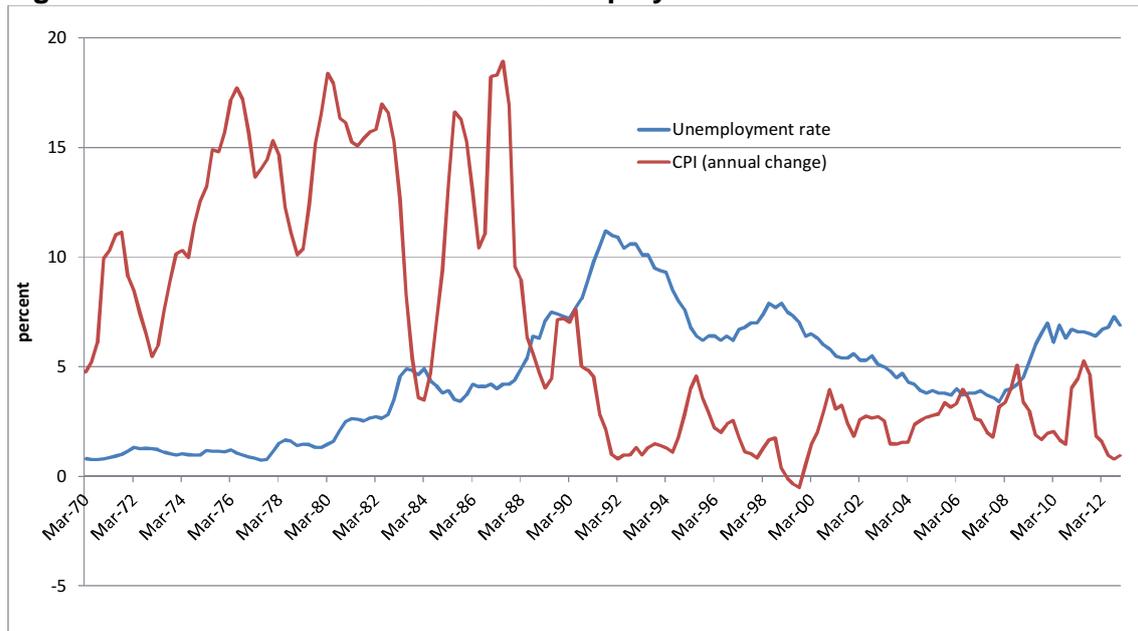
4.5 Macroeconomic performance

Since 1991, New Zealand's relative economic performance has improved, if not markedly. Compared to the OECD average New Zealand has crept up over the past two decades without threatening to regain the levels of the 1960s or early 1970s. Unemployment, at one point in the 2000s the lowest in the OECD, remains low by

developed country standards, and prices remain relatively stable, and importantly inflation expectations remain stable.

New Zealand still runs persistent current account deficits, and though not reaching the size seen during of the oil price crisis, these expanded to 9 percent of GDP at the height of the house price boom. The reliance on foreign funds to fund the gap remains, though the demand has shifted from the public to the private sector. Thus, one of the original perceived benefits of floating was largely achieved, in that current account deficits become market phenomena, though not eliminated as some had hoped.

Figure 2 – New Zealand Inflation and Unemployment

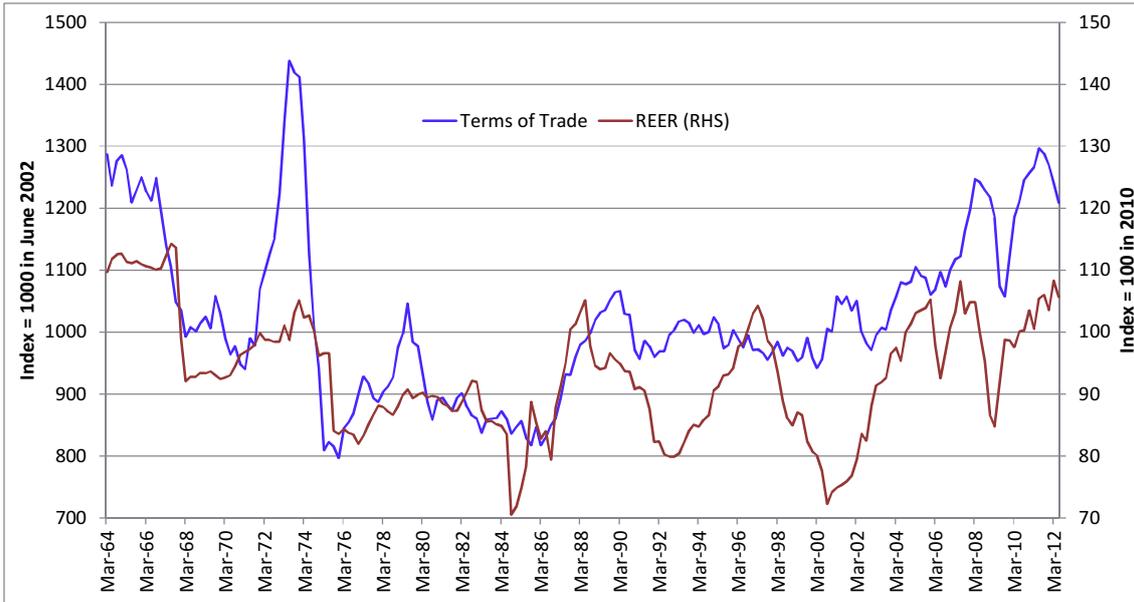


5. IMPLICATIONS

Different exchange rate regimes are shown not to have significantly affected the REER's overall movements, with income and relative economic performance probably more significant determinants. Indeed short-term measures to alter the nominal exchange rate in order to assist tradable sectors have been shown to have little lasting effect on the REER. Targeting lower volatility in the nominal exchange rate has tended to mean volatility and problems appear elsewhere in the economy.

Over the last 50 years of history the REER has moved generally as expected in line with terms of trade movements. 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 twenty 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. It is perhaps due to the perception that New Zealand's terms of trade would soon return to its long downward trend given the reliance on commodity exports that had, up until then, displayed a downward trend in prices over a century or more.

Figure 3 – New Zealand REER and Terms of Trade

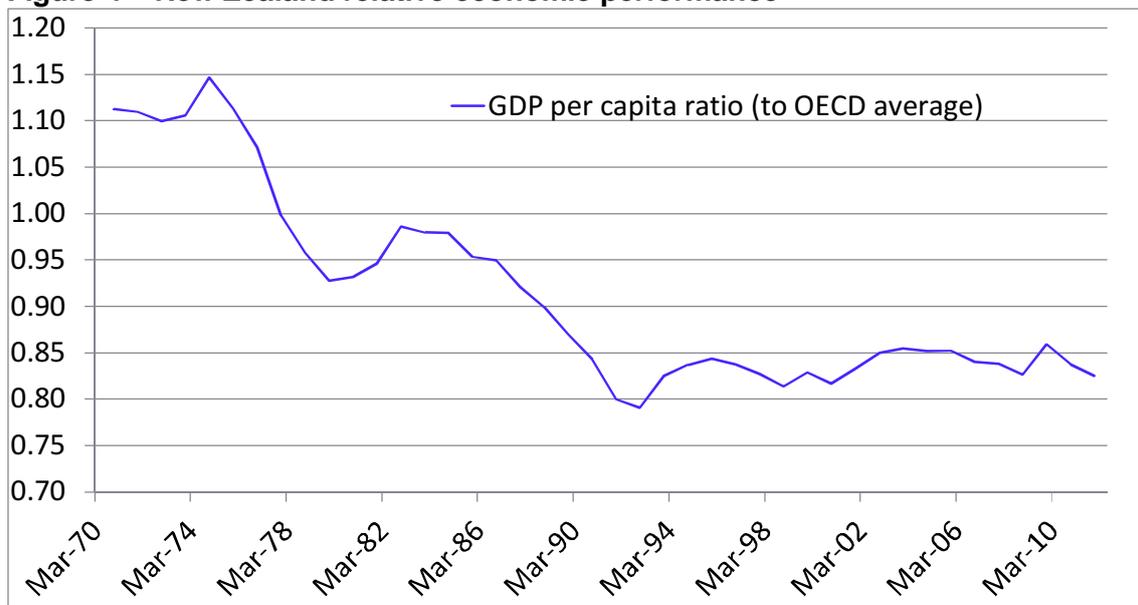


Source: BIS, Statistics New Zealand

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.

The REER's divergence from terms of trade movements in the late 1980s could be due to the relative economic performance (Figure 4). New Zealand's relative economic performance continued to decline after the REER had reached its nadir. Similarly, the recent lift in the average REER has not been matched by, or related to, relative economic performance, perhaps hinting at the forward looking nature of the REER.

Figure 4 – New Zealand relative economic performance



Source: OECD

However it is difficult to disentangle the effect of the exchange rate alone when assessing the first twenty years of the post-Bretton Woods era, as so many interventionist policies and then structural reform muddy the picture of how the exchange rate mattered to economic outcomes.

Looking at the exchange rate performance in the various fixed regimes and since float and also the pre inflation targeting era and since inflation targeting, it is not apparent that the main statistical properties of the REER have changed¹⁵. The mean between the two periods is very similar with the median almost identical. Minimum, maximum and standard deviation are all remarkably close when compared across the two periods..

Table 1 – Analysis of NZD REER pre- and post-IT

	NZD Real Effective Exchange Rate (monthly. Index = 100 in 2010)				
	Full sample	Fixed	Floating	pre-Inflation targeting	Inflation 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

Effectively the data above show that the exchange rate regime (comparing the various fixed rate systems versus floating) nor the presence of inflation targeting has made no difference to the characteristics of the REER. This is quite simple analysis only. Often fluctuations in the REER will reflect fluctuations in macro fundamentals. Sometimes, as with the terms of trade, they can be quite variable or at other times quite stable. But what this analysis does remind us of is that in fixed nominal periods the real effective exchange rate proved quite volatile. 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).

¹⁵ The volatility during the crawling peg was definitely lower, but the duration of the peg was too short to attribute too much significance.

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APPENDIX A – A Chronology of Key Monetary Policy Events

1970

January – Government announces all trustee savings banks invest at least 60 percent of deposits in government stock

October – Interest rate ceilings on deposits for terms greater than 2 years revoked. Ceilings increased to 4.5% and 5% for 1 and 2 year investments respectively.

1971

July – Selective Advance Control replaced ceilings with growth guidelines for total bank lending. 9% for forthcoming year

October – credit guideline for trading banks increased to 11% and government stock requirement for trustee banks reduced to 57%

1972

March – Government announced the RBNZ discount rate reduced from 7% to 6% to encourage economic growth, first change since 1961. Government stock requirement reduced to 54% for trustee banks. Savings banks requirement reduced from 70% to 60%. New schedule of interest rate ceilings introduced ranging from 4.5% on demand deposits to 7.25% on maturities over 6 years.

1973

June – Minister of Finance announced new reserve asset ratio system would replace ceiling and guideline system

July - NZD revalued by 3%. NZD no longer pegged to USD

August – Reserve requirement increased by 2 percentage points

September – NZD revalued by 10% to insulate against foreign inflation

1974

March – Trustee banks reduced from 54 to 53 and progressively reduced over rest of year to 50%. Savings banks ratio on investment accounts reduced from 100 to 99%, progressively falling to 81% by March 1975. Funds released were to be lent for housing.

May – Interest on Deposits regulations amended. Major changes included shortening length of term to receive maximum rate (from 6 to 4 years) Secured borrowings were exempted from regulation. Savings bank deposit rates were increased to make these types of deposits more attractive.

September – NZD devalued by 9% against all currencies except AUD against which it was revalued by 3%. This followed decision by Australian government to devalue by 12%.

October – Special deposits scheme introduced due to substantial outflow of funds on overseas transactions and a tightening of liquidity. RBNZ made sums available to trading banks to lend to priority areas.

1975

May – Budget included range of savings measures, to give banks more flexibility. Included were: deposit rate increases at trustee, private and Post Office savings banks; new accounts created with specified maturities and interest rates; three year government stock was made available to compensate banks for the higher deposit rates; and restrictions on rates applying to trading bank deposits of \$25000 or less were abolished.

July – Reserve asset ratio system for trading banks changed from fixed ratio to free reserves margin approach. Trading bank deposits of more than three years were released from interest control.

August – NZD devalued by 15 percent.

1976

February – Importers of certain goods were required to lodge one-third value of goods as non-interest bearing deposits with RBNZ, to prevent speculative importing.

March – Interest on deposits regulations revoked. Interest payable on POSB deposits and maximum rates permitted on trustee and private savings bank deposits adjusted upwards by 1% for maturities less than 2 years, 1.5% for 3 years. Interest rates on trading bank deposits were decontrolled except deposits less than \$12000 which were not to exceed rates offered by the other types of banks. Overdraft interest rate controls were removed for trading banks. Government security ratios reduced by 2 percent for all banks. Interest on trading bank borrowings from the RBNZ increased by 1.5% and RBNZ indicated these would be adjusted in a more flexible manner than previously.

July – Wool Income Stabilisation Scheme introduced.

September – A new deposit instrument called Housing binds introduced for trustee savings banks and the POSB.

December – A quantitative directive on trading bank lending to other financial institutions was rescinded.

1977

June – POSB authorised to introduce a personal housing loans (second mortgage) scheme.

July – Interest rate ceilings removed and savings banks free to set own term deposit rates (with RBNZ approval). Trading bank restrictions on deposits less than \$12000 revoked.

November – Inflation Adjusted Savings Bonds made available. The bonds carried a non-taxable adjustment to the CPI plus taxable rate of 2%

December – Trading banks given approval to introduce negotiable certificates of deposit and prohibition on investing in local authority securities removed.

1978

February - Trading and trustee banks could lend on personal loans up to 2% of deposits (previously 1%).

March Compensatory deposits Scheme whereby the RBNZ would redeposit with trading banks much of the net flows of funds to Government during periods of low liquidity. Minimum term for TCDs was lowered to 30 days.

April – Reserve Bank relaxed rules governing operation of official money market dealers. Trading banks were permitted to operate fully in the commercial bill market.

August – Minister of Finance announced private sector credit growth guideline of 10-15%

October – Private savings banks permitted to phase out holding of special government stock (interest rate of 3.75%). A new security, Government Savings Stock was made available carrying an initial interest rate of 11%.

1979

March – Housing lending conditions relaxed, including the introducing the ability to borrow to purchase existing homes.

April – Minister of Finance guideline for private sector credit growth was amended to 8-12%.

May – Trading and trustee banks were permitted to issue credit cards. All financial institutions required to notify RBNZ of any increases in charges for services, including lending rates.

June – NZD devalued by 5 percent, and crawling peg introduced whereby smaller more frequent changes of less than one-half of 1% would be made unannounced. Forward exchange contracts were introduced for USD. RBNZ would set premium or discount.

August – POSB approved to introduce term deposits

September – Trustee banks and POSB approved to make overdraft loans.

1980

February – Government security ratio applying to private savings banks and trustee banks reduced by 2% and 1% respectively.

April – Minister of Finance abolished limit on personal loans as percent of deposits for trustee and POSB.

July – RBNZ announces that single reserve asset ratio on all deposits to be applied to trading banks.

September – Trading banks no longer required to offer higher interest rates on investment accounts than those of savings banks. Private savings banks permitted to issue farm and fishing vessel accounts.

1981

July – RBNZ penal interest rate charged to trading banks reduced by 1%

1982

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

August – Limit on size loan where notification of change in fees or interest rates had to be notified to RBNZ was reduced to \$10000 (from \$100,000) in effort to stem lending growth through uncontrolled channels. Exchange controls on current account transactions were relaxed.

1983

January – RBNZ tightened restrictions on dealing in foreign exchange

March – NZD devalued by 6% against the basket of currencies, in response to AUD devaluation of 10%. Kiwi Savings stock introduced, paying 15%. CER agreement signed with the goal of free trade between New Zealand and Australia by 1995..

April – Lending guideline imposed involving upper limit of 1% credit growth per month for trading banks. This was shortly extended to finance companies, building societies and all savings banks. Minister of finance announced that the range of institutions that could apply for a foreign exchange dealers' licence was to be widened from trading banks and the RBNZ to other 'suitably qualified institutions.' S&P cuts credit rating from AAA to AA+.

May – Wage and price freeze extended to February 1984.

August – RBNZ quotation of USD exchange rate on a daily basis ceased. Quoted rate would be allowed to vary in a band in line with market forces. RBNZ would no longer participate in forward market. Nine new foreign exchange dealers authorised.

September – First government stock tender held.

November – Mortgage interest rate controls introduced placing maximum limit of 11% on first mortgage and 14% on second and subsequent mortgages.

December – details of price surveillance to take effect following end of wage and price freeze announced including an attempt to limit price increase to no more than two per year with retailers submitting returns of sales and profits to the Dept of Trade and Industry who could investigate and alter price changes. Government-owned financial institutions to face same regulations on owning government stock as other financial institutions. Free reserves margin reduced for trading banks.

1984

January – Minister of Finance announces free reserves margin reduced to zero.

February – Wage freeze extended. Reserve asset ratio for trading banks set at 32 percent of deposits, reserve margin reduced to - \$50 million.

April – Minister of finance announces reserve asset ratio eased to \$50 million. General wage adjustment of \$8/week announced as part of a transition to a relaxation of wage controls. Agreement reached to phase out import licensing and replace with a system of tariff-based protection.

May – Minister of Finance announces lending interest rates capped at 15% for non-mortgage securities offered by banks, building societies, life assurance and superannuation providers, 17% for other lenders.

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

July – NZD devalued by 20% following change of government (and three days of foreign exchange market being closed). Controls on lending and deposit interest rates removed. Price freeze imposed for three months.

August – Interest on deposit accounts decontrolled – maximum rates on savings accounts abolished and interest allowed to be paid on demand deposits. Credit growth guideline removed. Compensatory Deposits scheme abolished. Governor announces RBNZ to commence dealing in government securities on a regular basis.

September – RBNZ withdraws approval of the four dealing companies in the short-term money market. Lender of last resort facility for official money market also withdrawn. Export assistance scheme removed. New wage fixing rules introduced, with encouragement of bargaining at enterprise or industry level.

October – wage and price freeze extended to November

November – RBNZ announced abolition of overseas borrowing controls. Budget announces removals of various subsidies and incentives for farming, fishing and forestry. Interest rates on Government funded rural lending increased to market rates. First home owner rebate abolished.

December – all controls on outward and inward foreign exchange transactions relaxed.

1985

January – New Zealand Futures Exchange begins operations. First tender of Treasury bills held.

February – Compulsory ratios of holdings of government securities abolished.

March – NZD floated. RBNZ indicated they would remain in market to meet New Zealand Government requirement for foreign exchange, and to smooth movements if undue volatility occurred. Limits on foreign ownership of financial institutions abolished.

May – Governor's signature replaces Minister of Finance's on banknotes.

June – Budget includes income taxes cut in preparation for introduction of GST and plan to phase out assistance to land-based and manufacturing industries. Foreign investment rules relaxed again.

September – phase out of import licenses to be speeded up, but protective tariff removal to be reduced more slowly.

October – New Zealand Bankers' Association announced that trading banks would proceed with the commercial development of a cashless shopping system or EFT/POS

November – New banking licenses legislation removing types of banks, allowing institutions who meet criteria to be just 'banks.' RBNZ prudential supervision powers strengthened.

December – Minister of Finance announces several changes to Government's liquidity management arrangements, including definition of primary liquidity being settlement balances at the RBNZ.

1986

March – Wholesale sales taxes reduced to 20%

May – Electricity Division, State Coal Mines, Post Office and Civil Aviation corporatised.

June – All trustee savings banks except Taranaki agree to amalgamate operations.

July – Government legislates the ability to float shares in the BNZ.

October – GST introduced at 10%. Concurrent reduction in income tax rates, simplification of tax scale, increases in social welfare payments, abolition of most sales taxes.

December – RBNZ Amendment Act 1986 passed, providing a registration system for banks and for the RBNZ to carry out prudential supervision. New Zealand's international credit rating drops from AA+ to AA.

1987

January – BNZ publicly floated 13 percent of capital, the largest share float in New Zealand's history, New Zealand government maintains 87 percent holding.

March – Petrocorp announced to be second public float (30 percent shares to be sold).

July – Eight new banks registered.

August – new monetary aggregates announced, M3 and private sector credit. Governor says these will give a better view of overall monetary conditions.

October – Governor announces monetary policy tightened by way of increasing RBNZ's discount margin from 1 to 1.5%. Sharemarket plunges in line with international markets, NZD falls 3.7 percent on a trade weighted basis. New Zealand Steel sold to Equiticorp.

November – Governor announced increase in daily cash target from \$20 million to \$30 million, following sharemarket crash in previous month. RBNZ TWI introduced.

December – Government announces latest economic reforms including reacceleration of tariff removal and an increase in the asset sales programme.

1988

March – Government announces sale of remaining 70 percent of Petrocorp to Fletcher Challenge.

April – Minister of Finance announced that future monetary policy would be targeted at price stability.

July – introduction of the Reserve Bank Bill that replaces government stock and Treasury Bills as primary liquidity. NZDMO established.

October – top tax rate reduced from 48 cents to 33 cents.

November – Coalcorp sale approved

December – Air New Zealand sold to Brierley-Qantas consortium and Postbank sold to ANZ

1989

March – 1 and 2 cent coins removed from circulation. Excise tax on motor vehicles halved.

April – Inflation falls to 20 year low (excluding price freeze) of 4% for year to March. All manufacturing trade barriers between New Zealand and Australia removed.

June – BNZ announces loss of \$650 million due to increased provisioning.

July – Budget sets target date of achievement of price stability at December 1992. GST increased to 12.5%.

August – OIC approval no longer needed for investment below \$10 million. Rural Bank sold to Fletcher Challenge.

October – Governor appoints statutory manager to DFC New Zealand Ltd

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 PTA agreed reaffirming price stability as 0-2 percent annual CPI, to be achieved by December 1992. Government proposes restructuring of New Zealand Railways with a view to corporatisation, privatisation of Telecom (with restrictions on purchaser) further tariff reductions and a plan to make the labour market more flexible.

April – RBNZ issues first Monetary Policy Statement.

May – State Insurance sold to Norwich Insurance.

June – Austraclear enters New Zealand. Telecom sold to consortium comprising two US telcos, Fay Richwhite and Freightways.

Tourist Hotel Corporation sold to Southern Pacific Hotel Corporation.

July – Minister of State Owned Enterprises announces end of state asset sales.

August – RBNZ undertook to firm monetary conditions twice in the month, following exchange rate weakness and disappointing inflation outcomes.

October – Governor announces will target ex-oil inflation in the next year, due to large petrol price increases following the invasion of Kuwait. RBNZ firmed monetary policy in response to ‘inappropriate’ falls in NZD.

November – Government announces commitment to supporting BNZ through problems arising from non-performing loans in Australia. RBNZ met with trading banks to discuss periodic manipulation of market for short-term cash.

December – Following change of government, new PTA extends target date for price stability to December 1993. BNZ shareholders, Government and Fay Richwhite, reaffirm commitment to complete recapitalisation of BNZ. Government announce end of compulsory unionism and associated labour market restrictions

1991

January – RBNZ releases policy statement in response to emergence of an upward sloping yield curve stating that short rates should exceed long rates while inflation is being reduced.

February – RBNZ introduces technical changes to monetary policy implementation.

March – New safeguards introduced following DFC failure including requiring banks to hold certain amount of capital and limit exposure to single borrowers.

May – Employment Contracts Act takes effect.

1992

January – RBNZ issued statement noting concern over weakening exchange rate and threat to inflation. CPI actually prints at 1 percent for year to December 1991, inside target band for first time.

March – New Zealand’s credit rating affirmed at AA-

September – Downward movements in the exchange prompt RBNZ to announce that inflation target at risk

December – RBNZ reiterates commitment to price stability and expressed concern over continued weakness in NZD. Later in month RBNZ purchased \$30 million of government bonds as part of open market operation. On Christmas Eve the RBNZ responded to continued exchange rate weakness by not conducting an OM, meaning \$41 million of RBNZ bills were not offered back to the market.

1993

January – RBNZ tightens monetary policy in response to sharp fall in exchange rate: increasing penalty margin from 90 basis points to 150 basis points, not offering previously discounted bills back to the market, and reducing the cash target from \$20 million to zero. Cash target progressively increased to \$15 million following a firming in monetary conditions.

February – monetary settings restored to levels prior to tightening.

April – RBNZ MPS states no policy adjustment required as rising exchange rate has firmed monetary conditions.

September – New Zealand Rail sold to Wisconsin Central Transportation.

1994

March – Moody’s upgrade New Zealand sovereign debt rating to Aa2

June – Fiscal Responsibility Act passed, aiming to consolidate last decade of reform by increasing reporting requirements of Government.

December – RBNZ issues paper proposing a shift in bank supervision from private monitoring to public disclosure. MPS states inflationary pressure have emerged as a result of rapid economic growth and a substantial firming of monetary conditions is

warranted. New Zealand recorded the most rapid growth in the OECD in the year to June 1994. New Zealand credit rating upgraded from AA- to AA.

1995

January – CPI for December 1994 is 2.8 percent, outside the target band.

February – Budget announces net public debt targets of 20-30 percent of GDP.

March – RBNZ March Economic Forecasts note inflation will exceed target band and that monetary policy may not have been tight enough in hindsight. CPI subsequently published at 4.0 percent.

June – MPS notes productive capacity strains are easing, but not enough to warrant easing of monetary policy.

July – Governor states that given rise in exchange rate, the bank is open to a small market-driven fall in interest rates. CPI published at 4.6 percent.

August – RBNZ reduces settlement cash target twice in month in response to easing monetary conditions.

October – Governor states in that monetary policy may be eased sooner than expected if evidence of rapid easing in inflation arises. RBNZ issues statement two weeks later saying it is important financial markets do not overestimate the scope for an easing in monetary policy.

1996

January – new public disclosure regime for registered banks comes into force.

February – New Zealand credit rating upgraded from AA to AA+.

May – Minister of Finance writes to non-executive directors of RBNZ asking for assessment of Governor's performance given length of time CPI has been outside band.

August – Forestry Corporation of New Zealand sold to Fletcher Challenge.

October – RBNZ issues statement that further easing in monetary conditions would be inappropriate following lower than expected inflation projections. A week later the RBNZ indicates that recent firming in the exchange rate has not been necessary.

November – Governor urges fiscal restraint during coalition negotiations following first MMP election.

December – coalition government formed and new PTA signed widening the target band to 0-3 percent. PTA states that price stability is the best contribution monetary policy can make to economic growth, not simply an end in itself. RBNZ December MPS announces introduction of MCI to help reduce signalling problems. Governor notes overall easing in monetary conditions and urges a more moderate easing in the future.

1997

January – CPI published at 2.6 percent, within the new target band.

March – RBNZ publishes review of monetary policy implementation and signalling. Announces intended change from targeting settlement cash balances to targeting the overnight interest rate.

May – RBNZ issues statement that monetary conditions seem to be setting below desired levels.

June – Governor announces there will be no changes to monetary policy implementation following consultation on March paper. RBNZ announces the development of FPS to produce forecasts underlying MPS projections. Government announces all remaining tariffs to be removed by 2010.

July – Governor states that MCI has settled too far from desired levels.

August – RBNZ issued statement saying monetary conditions are becoming too loose.

December – RBNZ reiterates statement that monetary conditions are too loose. The release of the MPS shows monetary conditions continue to ease and the low NZD is causing inflationary pressure.

1998

February – RBNZ issues statement saying momentary conditions have eased too far.

March – March Economic forecasts announce an easing in desired monetary conditions. Governor announces shortly after that financial markets have overreacted to policy easing announcement and monetary conditions have eased too far despite some rises in interest rates.

May – MPS announces further easing in monetary conditions. Prohibition on parallel importing removed. All remaining motor vehicle tariffs removed.

June – RBNZ cautions market against extent of easing in monetary conditions.

July – Auckland International Airport publicly floated.

August – Governor announces monetary conditions have eased too far and too fast.

September – Moody downgrades New Zealand sovereign debt from Aa1 to Aa2. Government announces plans to remove all tariffs by 2006.

October – RBNZ issues statement that monetary easing has been very substantial and is increasing the need for caution. New Zealand banks drop floating mortgage rates to around 6.5 percent, the lowest in 28 years.

December – RBNZ announce euro will replace DEM in the TWI from January 1999. Further TWI will be reweighted to 50:50 trade weight to GDP weights.

1999

February – 90-day rate goes below 4 percent, an all-time low. RBNZ announces change to implementation of monetary policy in order to simplify process. From March the RBNZ will announce Official Cash Rate (OCR), reviewed every six weeks in public

announcements. The 'Wednesday window', previously used to comment on current monetary conditions is closed, to reduce risks of misinterpretation.

March – OCR introduced at 4.5%, a level broadly consistent with current monetary conditions.

May – Government floats Contact Energy on stock exchange.

September – New Zealand signs free trade accord with Chile.

November – OCR increased by 50 points to 5% and signal further rises over the next year. This is the first change in the OCR.

December – new PTA is signed with new government. Major change is directive to avoid unnecessary instability in output, interest rates and the exchange rate.

2000

January – OCR raised by 25 points to 5.25%.

March OCR raised by 50 points to 5.75%.

April – Cabinet agrees on five year freeze on tariff reduction. OCR raised by 25 points to 6.0% “to reduce future inflation pressures.”

May – OCR increased by 50 points to 6.5%. Finance Minister announces Svensson review of monetary policy.

October – NZD hits all-time low of 0.3895c against the USD.

2001

January – CPI published at 4.0p% – outside the target range of 0-3.

February – Svensson report released – critical of MCI, and recommends establishment of internal 5-person committee for setting of interest rates.

March – OCR reduced by 25 points to 6.25%. MPS states despite high headline inflation, inflation pressures are easing.

April – OCR reduced by 25 points to 6.0%. CPI inflation still above target range.

May – OCR reduced by 25 points to 5.75%.

September – announcement of external advisers to participate in monetary policy decisions. OCR reduced by 50 points to 5.25%– this is unscheduled and is in response to forecasted slowdown in world growth following 'September 11' events.

October – CPI published at 2.4%, back inside target band.

November – OCR reduced by 50 points to 4.75%. Kiwibank registered, to be run as SOE by New Zealand Post.

2002

March – OCR increased by 25 points to 5.0%

April – OCR increased by 25 points to 5.25%

May – OCR increased by 25 points to 5.5%. MPS shows core inflation at top of band and strong domestic demand conditions mean interest rate stimulus is no longer warranted.

July – OCR increased by 25 points to 5.75%.

September – new PTA signed with new Governor, changing CPI target band to 1-3 percent on average over the medium term.

October – Moody's upgrades New Zealand sovereign debt to AAA.

2003

March – MPS states that stronger currency and stronger domestic demand continue to pull monetary conditions in opposite direction. OCR unchanged but conditions for cut outlined.

April – OCR cut by 25 points to 5.5% as “conditions outlined earlier are met”.

June – OCR cut by 25 points to 5.25%.

July – OCR cut by 25 points to 5.0%. NZD rises above USD0.60 for first time in five years.

August – RBNZ becomes shareholder in Bank for International Settlements.

September – Government announces top tariff rates of 17-19 percent will be reduced to 10 percent by 2009, all other tariffs reduced to 5 percent by 2008.

November – unemployment rate published at 4.4%, the second lowest in the western world.

2004

January – OCR raised by 25 points to 5.25%

April – Government ratifies amendment to RBNZ funding agreement to broaden foreign exchange intervention capacity. OCR increased by 25 points to 5.5%.

June – OCR increased by 25 points to 5.75%

July – OCR increased by 25 points to 6.0%

September – OCR increased by 25 points to 6.25%

October – RBNZ releases first Financial Stability Report, noting financial instability often has its origins in long periods of economic expansion. OCR increased by 25 points to 6.5%.

December – New Zealand and Thailand announce closer economic partnership. NZD reaches 16-year high of USD0.7268.

2005

March – OCR increased by 25 points to 6.75%. MPS notes increasing capacity pressures as reasons for tighter monetary policy. NZD reaches USD07465, a 23 year high.

April – Government announces creation of Kiwisaver.

October – Governor issues statement voicing concerns about imbalance growing in New Zealand economy, including current account deficit at 8 percent of GDP. OCR increased by 25 points to 7.0 percent. Unemployment reaches 3.4 percent, the lowest in the OECD.

November – RBNZ announces joint project with Treasury and IRD looking at ancillary monetary policy instruments. Rising house prices contribute to the concern of rising imbalances and reducing reliance on OCR may relieve exchange rate pressure.

December – OCR increased by 25 points to 7.25%. Cabinet announces that, in principle, RBNZ should be sole prudential regulator of financial sector.

2006

January – RBNZ raises settlement cash level from \$20 million to \$500 million reflecting concern over upcoming liquidity pressures.

February – Settlement Cash level raised to \$2000 million.

March – RBNZ issues consultation document for liquidity management system.

April – Supplementary Stabilisation Instruments Report released. Report notes there are no readily implemented options without significant costs or complications. CPI prints at 3.3%, outside the target band.

June – NZD falls to low of USD0.5951

September – OCR unchanged at MPS despite noting inflation pressures easing more slowly than expected.

December – OCR unchanged but RBNZ does not rule out further tightening.

2007

January – CPI prints at 2.6%, back inside the band.

March – OCR raised by 25 points to 7.5%. MPS notes clear evidence of pick-up in activity, resurgence in the housing market and expansionary fiscal policy. Current account deficit published at 9.0% of GDP.

April – OCR increased by 25 points to 7.75%.

June – OCR increased by 25 points to 8.0%. MPS notes continued strength in domestic demand. Exchange rate noted to be at levels unjustified by fundamentals. Later in month RBNZ confirms it has intervened in foreign exchange market to sell NZD.

July – Bridgecorp put into receivership (first of seven finance companies before end of year). RBNZ announces changes to financing and management of foreign reserves, allowing an ‘open’ position to be held in future.

July – NZD reaches post-float high of USD0.8110. OCR raised by 25 points to 8.25%.

August – RBNZ announces will accept New Zealand bank bills as overnight reverse repos in order to ease liquidity following international credit market disruptions.

December – OCR unchanged at MPS RBNZ notes downside risk posed by global economic conditions but offset by rising food prices and recent tax cuts.

2008

April – New Zealand signs free trade agreement with China. CPI prints at 3.4%, outside the band.

May – FSR reports sharp downturn in global financial markets as the “largest financial shock since the Great Depression.” RBNZ broadens set of eligible securities for overnight reverse repos.

July – OCR reduced by 25 points to 8.0%. RBNZ notes despite inflationary pressures persisting, the financial crisis has significantly increased the cost of funds raised abroad. Governor notes in speech that inflation targeting has served New Zealand well, and flexibility has allowed RBNZ to manage ongoing external shocks.

September – RBNZ Amendment Bill passed making RBNZ sole regulator on non-bank deposit takers. OCR reduced by 50 points to 7.5% as outlook for global and domestic economy continues to deteriorate. New Zealand enters technical recession.

October – RBNZ announces further liquidity enhancements in broadening of securities eligible. CPI prints at 5.1%. OCR reduced by 100 points to 6.5%.

November – Minister of Finance announces Crown will offer wholesale funding guarantee. RBNZ announces two new facilities aimed at increasing banking system liquidity. FSR reiterates soundness of New Zealand financial system, but acknowledges higher cost and lower accessibility of overseas funding. US announces “Quantitative Easing.”

December – OCR cut by 150 points to 5%. MPS states that monetary policy is now expansionary.

2009

January – OCR reduced by 150 points to 3.5%. Bank of England announces Quantitative Easing.

March – OCR reduced by 50 points to 3%.

April – governor expresses concern over strength of long term interest rates, stating “we are projecting interest rates to remain at low levels for an extended period.”

April – OCR reduced by 50 points to 2.5%.

June – OCR unchanged at MPS. GDP published at -1.0% for year ended March.

July – CPI published at 1.9%, well back in the band after being 3.0% in April.

August – RBNZ announces that it is exempting some deposit takers from requiring a credit rating.

October – RBNZ announces it will remove and consolidate some of the emergency liquidity measures put in place during the financial crisis.

2010

March – RBNZ announces that credit ratings are now mandatory for non-bank deposit takers. MPS leaves OCR unchanged but indicates intention to remove policy stimulus later in year as economy recovers.

April – Wholesale Guarantee Facility closes.

June – OCR increased by 25 points to 2.75%. GDP growth for year to March published at 0.4%, first positive for a year.

July – OCR increased by 25 points to 3.0%.

September – Damaging earthquake hits Christchurch. OCR unchanged at MPS, though RBNZ notes disruption to recovery.

October – GST increases to 15 percent. Retail Deposit Guarantee Scheme ends.

November – Last remaining emergency liquidity facility is removed.

2011

January – CPI inflation prints at 4.0% - outside the band due to GST, excluding GST inflation would have been 2.1%.

February – Canterbury suffers second, more damaging earthquake with 185 fatalities.

March – OCR reduced by 50 points to 2.5%, MPS cites severe damage and disruption to business from earthquake, and clear that economic activity will be negatively affected for some time.

May – Moody's downgrades New Zealand's four main banks one notch following downgrades of their Australian parents.

July – Banks now face minimum core funding ratio of 70 percent (up from 65 percent)

2012

July – CPI published at 0.9%, outside band.

September – New PTA signed including explicit requirement to monitor asset prices