Exchange rate strategies for small open developed economies such as New Zealand

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Abstract: Changes in the global financial system, together with new experience with fixed and floating exchange rates, have resulted in a reassessment of exchange rate strategies for both developed and emerging market economies. The emergence of a currency union in Europe has been seen by some as showing the path forward in the continuing integration process of developed nations. In New Zealand, success over the past decade has been mixed on the economic front; while price stability objectives have been achieved, growth performance has been disappointing. In view of large swings in the exchange rate over the past decade, some attention has recently been paid to alternative exchange rate strategies that might allow for reductions in exchange rate variability, and thereby better economic growth performance.

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1. Introduction

Over the past two decades, the liberalisation of capital flows and the creation of deep and liquid foreign exchange markets have changed the economic environment that open economies operate in. The benefits of these developments are substantial, including greater availability and options of financing for productive activity all over the world, and better opportunities for savers to diversify risk and increase return. Nevertheless, the new environment also poses serious new challenges for policymakers.

One of these challenges is the risk posed by the interface with the international economy. A series of tremendously costly exchange rate crises during the past decade illustrates a greater macroeconomic fragility of economies with fixed exchange rates and open capital accounts. These crises include those of the European Monetary System in 1992-3, Mexico in 1994, Southeast Asia in 1997, Russia and Brazil in 1998 and more recently also Turkey and Argentina. Moreover, the initial outbreaks of crises have resulted in unpredicted contagion effects, striking several countries with apparently strong fundamentals and well-regarded economic policies.

The increased frequency and severity of these exchange rate crises, particularly in emerging markets, has led to a rethinking about exchange rate arrangements, in two general directions. First, a consensus has emerged about the "impossible trinity" of a fixed exchange rate, capital mobility, and a monetary policy dedicated to inconsistent domestic goals, which in turn has led several countries to abandon fixed rates, via floating (combined with inflation targeting) or via a consolidation of the number of national currencies. Second, there are now discussions regarding the best way to modify the international financial architecture to reduce the overall likelihood of crises. In addition, much has been written on the urgency of reducing country-specific macroeconomic fragility by structural means, e.g., improving governance structures, designing more robust financial systems, more effective bankruptcy codes and selecting more appropriate exchange rate regimes.

Developed markets have been relatively sanguine about preventing or containing crises on the home front, and are instead debating what measures may improve growth and welfare prospects over the longer term. The recent debate has been dominated by the ongoing European transition to a common currency, as part of a package to increase political and economic integration.

A neglected area of discussion is the appropriate exchange rate regime for small, open, developed economies that are outside of the European experiment, such as New Zealand, Iceland, Norway, Australia and Canada. These economies are naturally affected by the changes in the international economic environment, and their policymakers must consider how best to respond to these changes in order to manage new risks and take advantage of opportunities to improve welfare.

Section 2 surveys exchange rate arrangements of developed countries, and discusses the issue of exchange rate volatility. Section 3 describes the New Zealand context of successful performance in maintaining price stability while suffering disappointments with respect to growth performance. Section 4 describes various options available to New Zealand with respect to currency markets. These options include those that may mitigate exchange rate movements within a floating regime as well as the option to form a currency union with a trading partner. Section 5 concludes.

2. Exchange rate issues for developed economies

Developed countries differ from emerging market economies in several ways. They have a higher per capita income, long-established institutional structures associated with rules-based democracies, and significant social welfare programmes. Effective governance and regulatory structures have evolved which enjoy widespread public acceptance, due in part to their accountability to the electorate. All of this allows for a greater measure of robustness to economic shocks of various kinds. While robustness is not the same as immunity, it does imply a considerably lower likelihood of a panic-generated crisis, and a greater capacity to contain damage caused by real shocks.

By and large, a duality of exchange rate regimes exists today among the developed economies. Table 1 (reproduced from Fischer, 2001) shows that of 22 developed countries (not including Greece or Luxembourg), ten have opted to join the euro area, nine float their currencies independently and the remaining three are special cases: Singapore with a managed float, Hong Kong with a currency board, and Denmark, which pegs to the euro in a horizontal band.

Table 1. Developed Market Economies (as of December 31, 1999)

Euro Area		**Other**	
	Exchange Arrangement		Exchange Arrangement
Austria	NS	Australia	IF
Belgium	NS	Canada	IF
Finland	NS	Denmark	HB
France	NS	Hong Kong SAR	CBA
Germany	NS	Japan	IF
Ireland	NS	New Zealand	IF
Italy	NS	Norway	IF
Netherlands	NS	Singapore	MF
Portugal	NS	Sweden	IF
Spain	NS	Switzerland	IF
		United Kingdom	IF
		United States	IF

Source: IMF, *Annual Report 2000*
Note: Economies listed in the MSCI Developed Markets index.
Key:
NS = Arrangements with no separate legal tender
CBA = Currency board
IF = Independently floating
HB = Pegged rate in horizontal band
MF = Managed float with no pre-announced exchange rate path

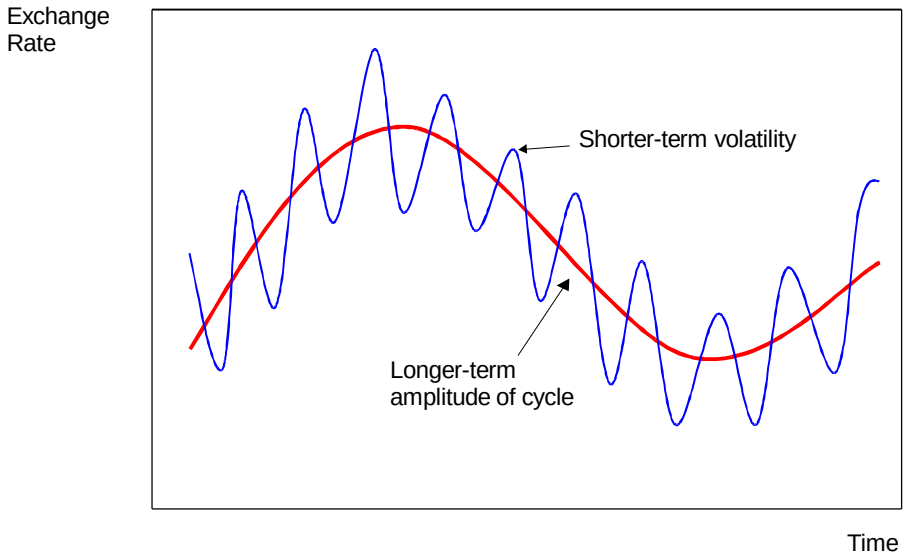
All of the countries that we are focusing on have floating rates, albeit with varying degrees of periodic intervention in foreign exchange markets.

The most obvious characteristic of a floating exchange rate is the constant fluctuation against other currencies. This allows for efficient absorption of shocks to the current account, but is also believed to be disruptive to trade and foreign investment. To the extent that most fluctuations are temporary, and some large swings are clear overreactions that do not find support in fundamentals, one does not have to look far for a motivation to seek mechanisms to reduce variability.

Types of volatility

It is helpful at this point to draw a distinction between short-term volatility, which looks at fluctuations with a frequency of less than a year, and longer cycles over up to several years.

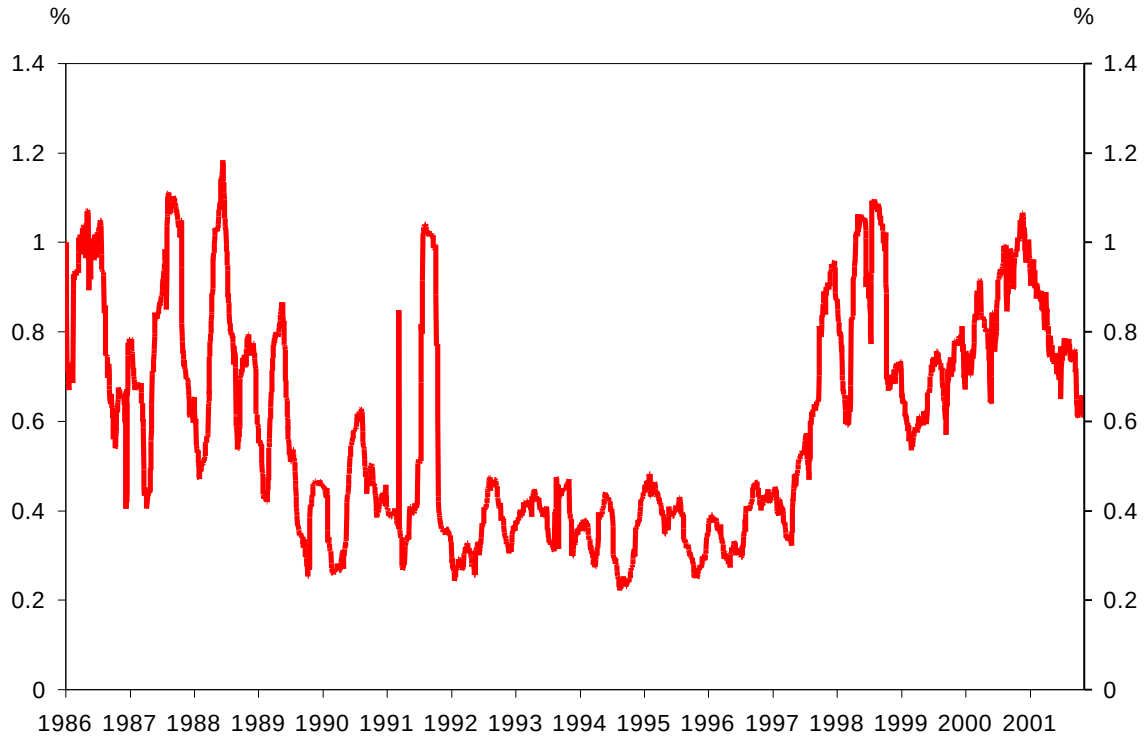
Figure 1: Exchange rate volatility and cycle amplitude



Short-term volatility: As depicted in Figure 1 above, *volatility* is a term generally used to describe exchange rate fluctuations that occur over a reasonably short time horizon: perhaps hourly, weekly, or monthly.

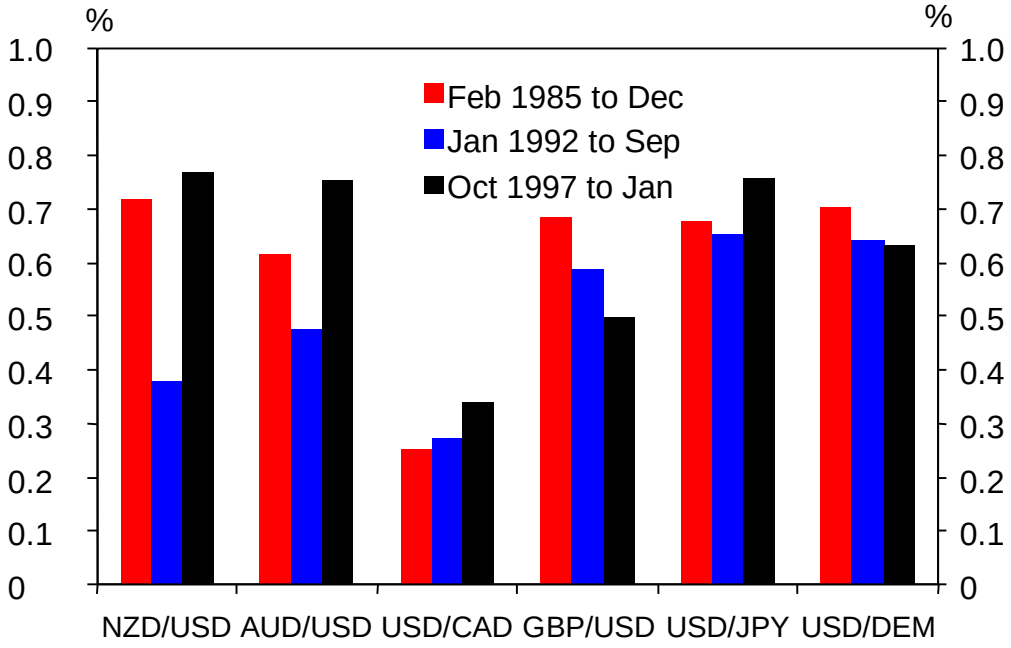
In New Zealand, exchange rate volatility appears to have increased recently after a relatively stable period in 1991-1996, resulting in some expressions of concern. Figure 2 depicts the evolution of volatility, defined as the standard deviation of the daily percentage change in the NZD/USD exchange rate for a 60-day moving window.

Figure 2: Exchange rate volatility in NZD/USD



Nevertheless, Figure 3 suggests that in comparison with other countries, New Zealand dollar volatility does not seem significantly different.

Figure 3: USD currency pair volatility comparisons (rolling 30-day volatility)



In addition, empirical estimates of the direct cost of exchange rate volatility in New Zealand (as elsewhere) have been low. Fluctuations in the TWI with frequencies varying from 1-8

quarters have extremely small or insignificant effects on exports, imports and investment (Gray, 2002). One possible explanation for this is that most businesses are able to effectively hedge themselves against this type of volatility. Brookes et al (2000) find that New Zealand firms typically engage in substantial hedging of known trade receipts and payments out to around six months, but with less cover for flows expected between six to twelve months ahead. There is also a rapid fall-off in the extent of cover for trade that is expected to occur beyond 12 months. In other words, firms are relatively easily able to insulate themselves from short-horizon exchange rate volatility.

Amplitude of the exchange rate cycle: The business cycle frequency of the exchange rate fluctuations is often referred to as the 'amplitude of the exchange rate cycle', to distinguish it from higher frequency volatility.

Of course long-term variations in the exchange rate often have benefits, to the extent that they move with swings in fundamentals such as commodity prices or foreign demand. But it is also well known that exchange rates often deviate from fundamentals for very extended periods of time. For example, the persistence of deviations from PPP in modern floating rate data has been difficult to explain (e.g. Rogoff (1996)).

Such long-term fluctuations that do not track fundamentals are problematic for businesses that encounter unhedged exposure to these unpredictable movements, which in turn do nothing to insulate against external shocks. Whereas hedging instruments can often be used to mitigate the costs associated with short-term volatility, firms generally "ride out" the longer-term exchange rate cycles. The costs associated with doing this can be significant.

There are basically two reasons why firms do not use hedging instruments to insulate themselves from longer-term cycles. First, firms often face considerable uncertainty about the size of income and cost streams beyond the next 12-24 months. Without a better understanding of exchange rate exposure, they are not in a position to put into place a good hedging strategy. There are also reasons of imperfect competition that might be relevant. Hedging could leave a firm significantly worse off if it prevents them from benefiting from an unexpected but favourable exchange rate move, especially if it puts them in a worse position relative to their competitors.

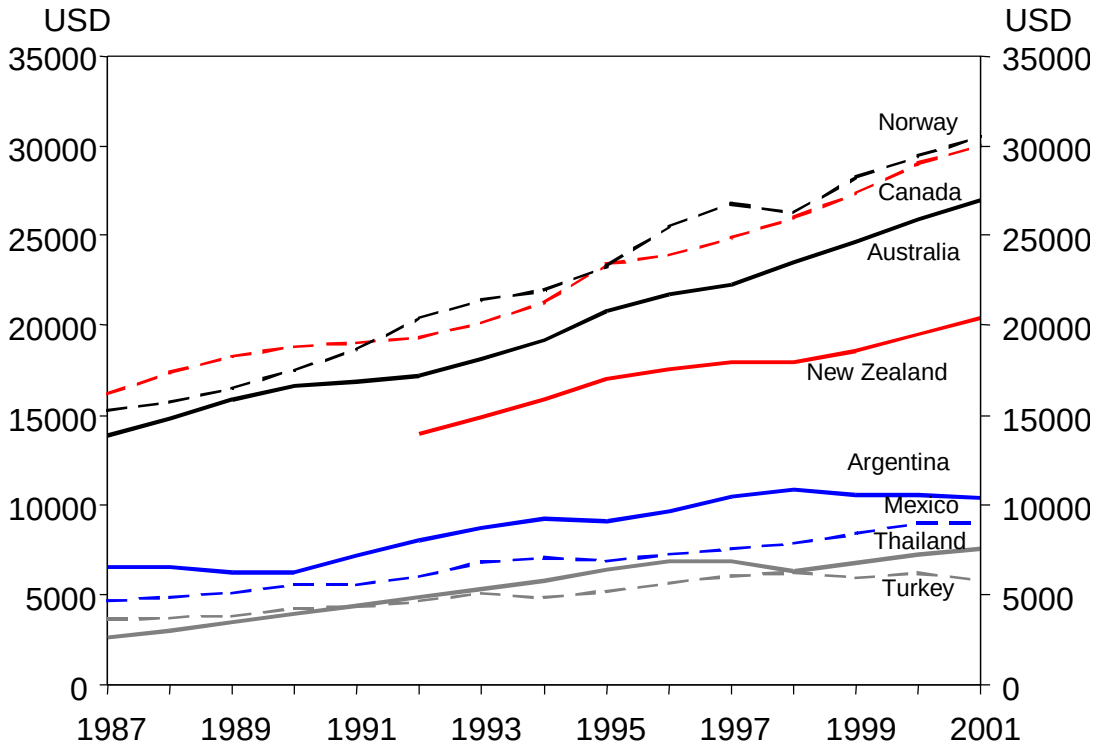
Second, long term contracts are usually expensive, if available at all. Foreign exchange cover for long terms involves credit exposure. If the borrower is unable to settle an exchange rate deal when it becomes due, the creditor bank risks taking a substantial loss in unwinding the financial contract. Such risks add to the cost of hedge contracts.

3. The New Zealand context

New Zealand formally introduced inflation targeting in 1989, and has had a freely floating exchange rate since 1985. The results of this framework to date are broadly positive, given that inflation has been low and stable for ten years, and there have been no financial or banking sector crises – even in the face of the Asian crisis and a significant exchange rate depreciation. However, economic growth has been disappointing relative to many of our trading partners and our growing external indebtedness suggests potential vulnerabilities in the future. Overall, though, the current system seems sustainable and robust, particularly given the overall environment of fiscal surpluses, low levels of public debt and a sound banking system. Recent GDP growth has also been surprisingly robust, given the global slowdown of 2001.

Nevertheless, over the past two decades, the relative growth performance of New Zealand has been disappointing. Wide-ranging reforms during the late 1980s and early 1990s generated hopes of more rapid growth during the 1990s than has been the case. A common benchmark of comparison is Australia, which reformed less but has grown faster during the same period.

Figure 4: Evolution of per capita GDP (PPP-corrected)



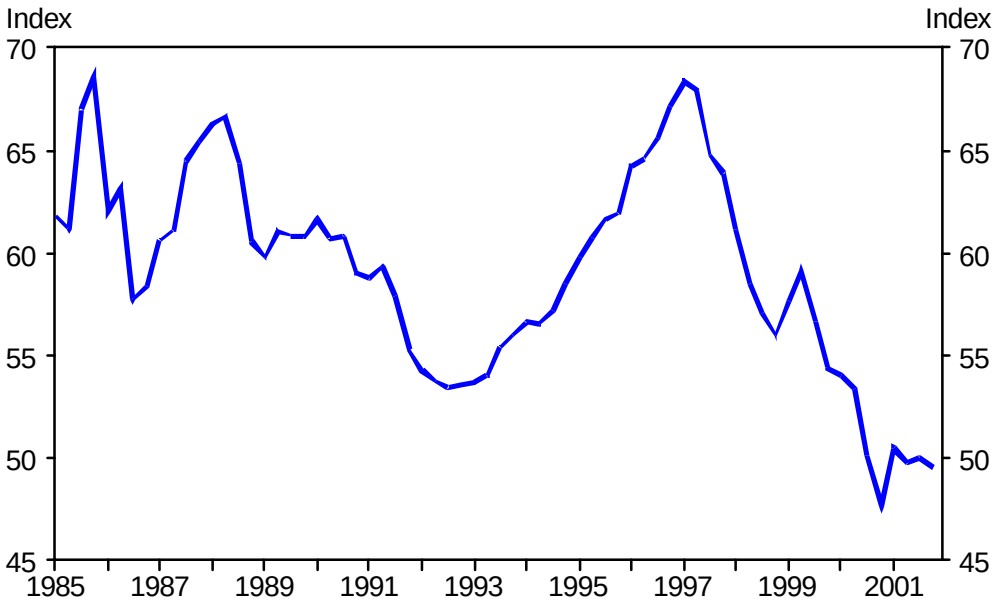
This poor relative performance has sparked a search for explanations and for alternative models. Some have argued that the reforms in New Zealand should have been sequenced differently so that people would have been better able to take advantage of the reforms. Similarly, some hold that a slower pace of reform would have placed the New Zealand economy under less stress and would have resulted in better growth through the 1980s and 1990s.

Recently, work done in the Treasury has explored the possibility that the unsatisfying relative performance of New Zealand is due to characteristics that are not so amenable to policy, such as smallness, dispersion of population and distance from major external markets (see e.g. Skilling, 2001).

At any rate, few stones have been left unturned in the search for explanations as to why growth has not been faster in New Zealand. Exchange rate behaviour is no exception. Various commentators have wondered whether movements in the New Zealand dollar's exchange value have been detrimental to growth.

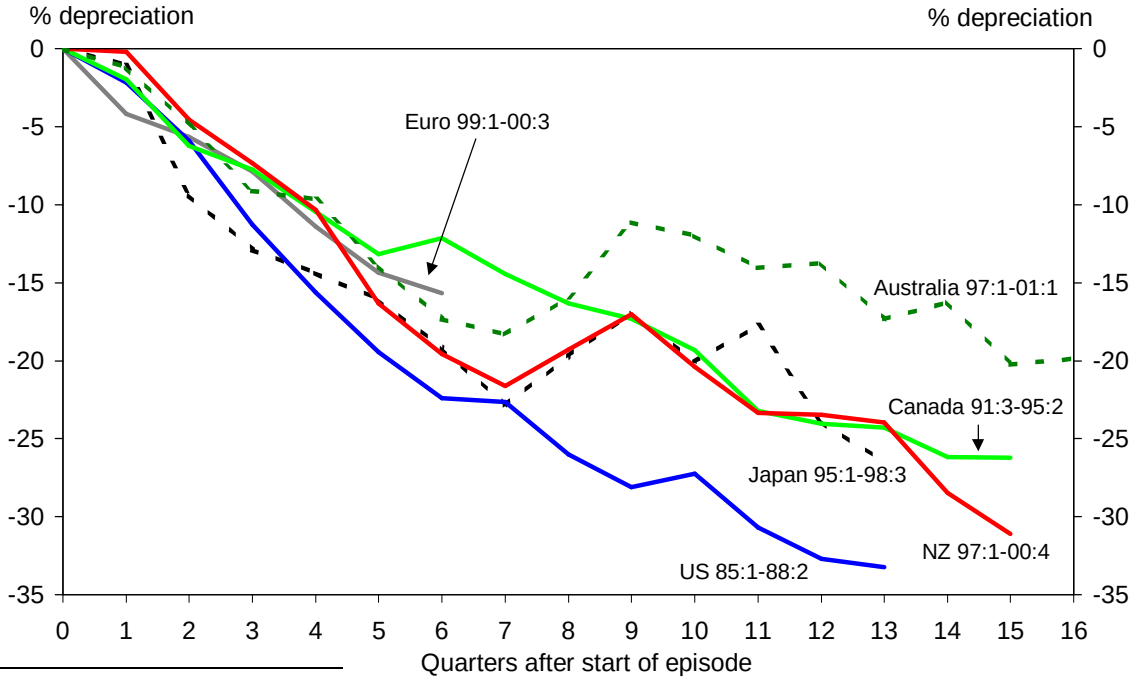
These movements have been large. Figure 5 below illustrates how, for example, between late 1992 and early 1997 the TWI appreciated by almost 30 per cent before depreciating by a similar magnitude over the following 3½ years.

Figure 5: Evolution of New Zealand's Trade Weighted Index 1985-2001



These movements have nevertheless not been tremendously out of line from movements of other, larger currencies. Figure 6 plots the recent episode of depreciation in New Zealand's real effective exchange rate alongside recent episodes of significant currency depreciation for other OECD economies. Each episode has been lined up at a common starting point. Thus, for example, New Zealand's episode of depreciation starts in the first quarter of 1997 and ends in the fourth quarter of 2000. The episode of depreciation for Canada starts in the third quarter of 1991 and proceeds until the second quarter of 1995. While the fall in the New Zealand dollar has been very significant, the magnitude of cycle that New Zealand has experienced is not tremendously different from those of other countries.

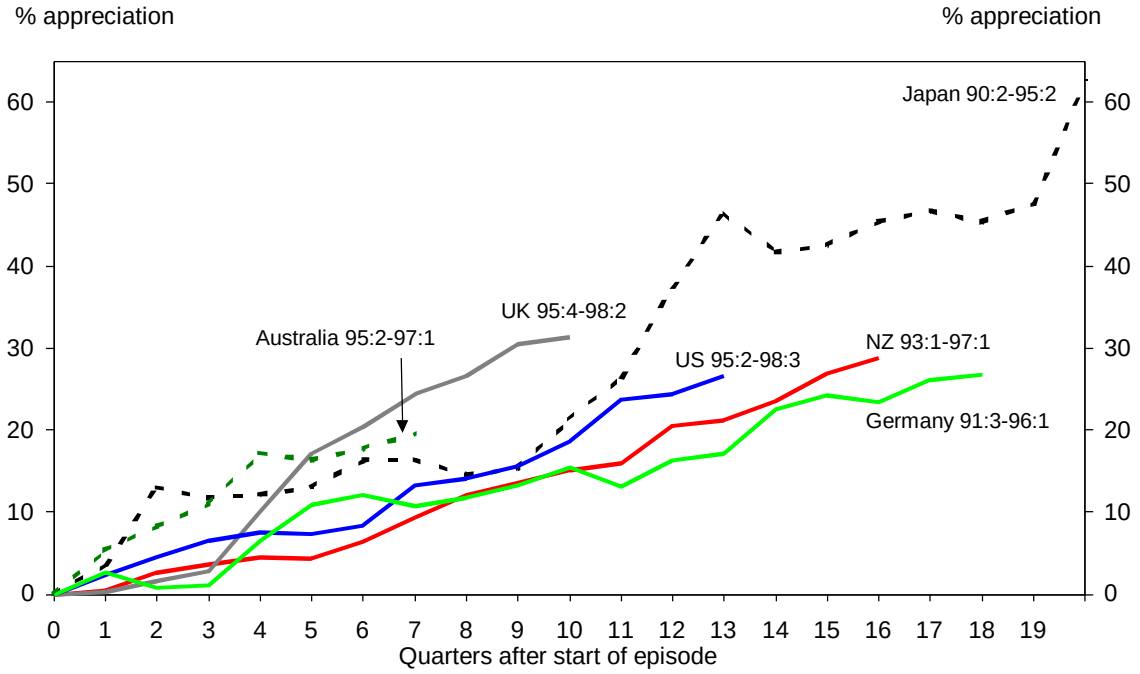
Figure 6: Peak to trough comparison of various real exchange rates[1]



[1] The exchange rates shown are the real effective exchange rates as calculated by the IMF.

Similarly, Figure 7 shows that New Zealand's mid-1990s episode of appreciation, although large, was not unusually large.

Figure 7: Trough to peak comparison of various real exchange rates



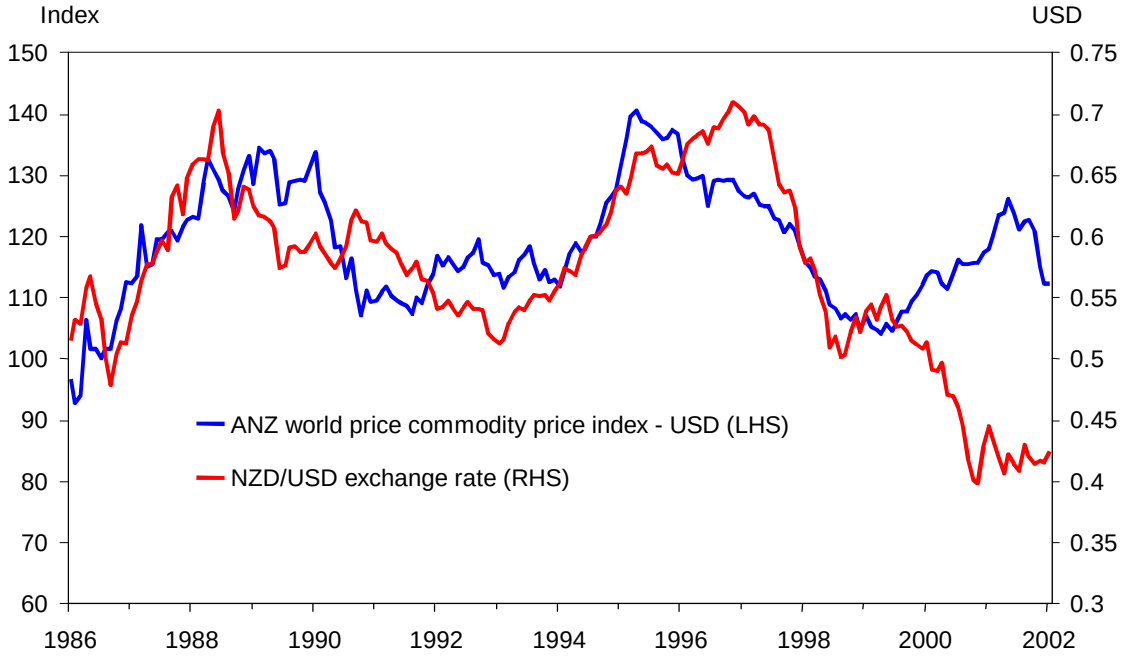
However, the fact that New Zealand is not an outlier in its exchange rate cycle is of limited comfort. Instability of exchange rates among the major currencies has long been a topic of policymaker concern and discussion, with regular proposals for target zones among the three major currencies. Fischer (2001) points out that while such a system does not exist formally, it still seems that when major exchange rates get very far out of line with fundamentals, two or three of the big three will agree to intervene in the currency markets. Examples of this include mid-1995 when the yen-dollar exchange rate reached 80, implying a yen that was significantly appreciated relative to estimates of its equilibrium value, and 2000, when the euro was significantly depreciated relative to its estimated equilibrium value.

This brings us to the question of the extent to which such exchange rate swings reflect shifts in underlying economic fundamentals. If movements in New Zealand's exchange rate predominantly reflect "fundamentals", then there is a strong case for retaining a flexible exchange rate. But to the extent that movements do *not* reflect fundamentals, then we posit that such exchange rate swings are more disruptive and impose higher average transactions costs on relatively open economies such as New Zealand than corresponding fluctuations do in less open large economies such as the United States, Japan or the Euro area.

The significant body of economic literature on this topic provides mixed evidence. There are a number of economic drivers that can potentially explain a significant proportion of exchange rate fluctuations. For New Zealand, Australia and Canada, commodity price fluctuations are an important such driver. Figure 8 shows the NZD/USD exchange rate and the ANZ world commodity price index. For most of the sample, the exchange rate moved broadly together with the index of commodity prices, thus smoothing the cycles of NZD prices. In more recent times the currency has fallen even as commodity prices rose, thus

amplifying the movement in the foreign prices, rather than damping it. Apparently the exchange rate moves with this fundamental at some times but not at others.

Figure 8: Commodity prices and the exchange rate, 1986 - 2002



On the other side of the debate, there is substantial evidence to suggest that exchange rates deviate from fundamentals for very extended periods of time (e.g. Rogoff, 1996). A range of various structural and time series exchange rate models have been unable to outperform a random walk model. This conclusion was first drawn by Meese and Rogoff (1983) for major OECD currencies, and their conclusion has stood well the test of time, with scant evidence of robust exceptions to their finding. With regard to the exchange rates of smaller open economies there has been less consensus, with a number of relatively successful attempts at modelling the "commodity currencies" of Canada and Australia[2]. However, Chen & Rogoff (2001) were unable to overturn the earlier Meese & Rogoff result, even after incorporating world commodity price fluctuations in models of the exchange rates of Canada, Australia and New Zealand. Despite observing "striking evidence on just how closely movements in these currencies seem to track the corresponding world price indices of their commodity prices" they find that standard exchange rate equations – adjusted for commodity price shocks – do not offer very strong encouragement for the point of view that the commodity currencies might be easier to explain than the major currencies. In conclusion, they note that "the substantial persistence that remains in the commodity price-adjusted exchange rates left us facing the same PPP puzzle again, where neither standard monetary nor real shocks seem suitable for explaining the remaining variations that are both so volatile and persistent."

The costs of significant exchange rate amplitude, over and above that driven by fundamentals, is difficult to measure. Given this, it is perhaps not surprising that this topic is not often addressed in empirical studies. It is clear that the profitability of firms in the tradables sector will suffer when the exchange rate is very uncompetitive, at the top of the exchange rate cycle, while firms will enjoy higher than average profitability at the bottom of the cycle. Assuming that these effects are symmetric, the main microeconomic cost to the economy will be the transition costs associated with people having to move between the tradable and non-

[2] See Frankel and Rose (1995) for a survey of the empirical research on exchange rates.

tradable sectors. The more important external trade is to an economy, the greater the potential costs of unexpected currency fluctuations. For New Zealand, with a large tradables sector, these costs may be high.

The costs of significant amplitude are likely to be still higher if firms are risk averse. Consider a domestic manufacturer who would like to invest in a new factory, in order to expand export production. Though at the current level of the exchange rate, the expansion would be highly profitable, the manufacturer may (quite rightly) be concerned about how the exchange rate will move over the life of the new plant. In the New Zealand case, many exporters were burned by the high exchange rate in 1996/97 (some fatally) and memory of that time may be sufficient to deter the manufacturer from expanding at the lower exchange rate.

In other words, risk averse behaviour would imply that the growth of new firms during periods of low exchange rate might not be sufficient to offset the decline of firms during periods of high exchange rate, thus producing the phenomenon of "hollowing out". At a macroeconomic level this would result in slower overall export (and import-competing) growth than might be expected with a more stable exchange rate.

Some recent empirical evidence also suggests surprisingly large economic benefits of institutional exchange rate stability. Rose (2000) uses trade volume data to suggest that trade may increase by up to a factor of three with the adoption of a currency union. The direction is plausible, although there are some reasons to be cautious about the magnitude of this result (see Smith, 2001). Parsley and Wei (2001) find dramatic reductions in international price dispersion under a currency union, even compared with what would take place via currency market intervention. Other straws in the wind as pertains to New Zealand include small business surveys reported on by Grimes et al (2000), which suggest that separate national currencies are an obstacle to cross-border business expansion. More data and empirical studies are continually emerging, and these are being given due attention in New Zealand as well.

Finally, for central bankers there is always some concern that exchange rate volatility may partly derive from the monetary policy process itself. When responding to domestic inflation pressures with interest rate hikes, a consequence is the emergence of an incentive for international capital to take advantage of a growing interest rate differential with the rest of the world. This would tend to appreciate the exchange rate. Thus a side effect of minimising overall price variability may be an exacerbation of the exchange rate cycle, increasing the costs of price variability for the tradable sector. To some extent this was the case in New Zealand in the mid-1990s when strong inflation in the non-tradable sector (and particularly the housing sector) led to high domestic interest rates – which was decidedly an important driver of the exchange rate appreciation over that time.

4. Exchange rate options that are in principle available to New Zealand

Adjustable peg systems have not proved viable over any lengthy period, especially for countries that are integrated into the international capital markets (see, e.g., Stiglitz 2001, Fischer 2001). A major lesson of the repeated EMS crises in the eighties and in 1992-3 and the many emerging market crises since 1994 is that this problem is especially intense for countries with open capital accounts. Pegging the exchange rate is therefore not an option to consider seriously in an environment characterised by close integration of financial markets, without significant controls on the flows of capital. Instead we consider first the status quo

arrangement. We then consider those options that may moderate/affect the behaviour of floating exchange rates. Finally we consider the option of entering a currency union with a large trading partner.

4.1 Retaining the status quo

There are two main *advantages* of a floating exchange rate regime for New Zealand. First, the exchange rate acts as a buffer against shocks to the current account. Given the relative importance of commodities in New Zealand production and exports, shocks to the terms of trade will often require adjustment of the exchange rate in order to maintain external balance. Second, a floating exchange rate forces the private sector to be more diligent in hedging foreign currency exposures. On balance, NZ banks have sound management of foreign exchange exposures, as has been examined in some detail by Woolford et al (2001).

In contrast, the main *disadvantages* of a floating exchange rate stem from the extent to which the exchange rate 'overshoots' its real fundamental drivers. The discussion above has highlighted some of the problems, particularly with respect to the tradable sector, that are caused by exchange rate movements beyond those attributable to fundamentals.

4.2 Options to moderate the behaviour of floating exchange rates

Capital controls

For a country such as New Zealand, with an open capital account and a floating exchange rate, capital markets effectively determine the prevailing "mix" of monetary policy, in terms of the configuration of interest and exchange rates. Monetary policy is generally too blunt a tool to be able to directly target the source of the inflationary pressure.

Some countries have approached this problem by establishing supplementary controls as an additional policy tool, in order to influence the relative interest rate vs exchange rate impact of monetary policy. Both Chile and Malaysia introduced capital controls in the 1990s in order to influence the size and composition of capital inflows. At the Reserve Bank of New Zealand we have also studied whether there are any supplementary measures that, if adopted, might ease apparent imbalances. We have not been convinced that any of the options we have identified would, if employed, have materially eased the cyclical imbalances that we experienced in the 1990s. We also recognise that any such gains would have come at significant ongoing costs to the efficient operation of New Zealand's economy and financial markets (Reserve Bank (2000)). Capital controls of the type utilised by Chile might well have limited the upward pressure on the exchange rate that New Zealand experienced in the mid-1990s. These gains would have nevertheless had to be weighed against the longer-term costs of making it more difficult and costly for New Zealand borrowers to access world capital markets across all stages of the cycle, and not simply when New Zealand was wanting to lean strongly against domestic inflation.

In addition, in the Chilean experience the effectiveness of the controls was gradually eroded over time; empirical evidence presented by Edwards (2000) suggests that the Chilean controls lost their effectiveness after 1998, and they have recently been removed. Given New Zealand's well-developed financial markets, especially for derivative products, very substantial supervisory and compliance costs would have been incurred to prevent market players from circumventing the intended effects of the controls.

Sterilised intervention in the foreign exchange market

Compared with capital controls, sterilised intervention in the foreign exchange market is a more orthodox tool. In many countries, authorities find it useful to intervene from time to time in the foreign exchange markets to try to stabilise the exchange rate, even while taking care not to be perceived as trying to defend a particular rate. According to Fischer (2001), this is one of the remaining areas in which central bankers place considerable emphasis on the touch and feel of the market, and where systematic policy rules are not yet common. There is of course also controversy over whether intervention works at all—and even if it does, whether it is wise to use it.

New Zealand has not intervened in the foreign exchange market since the New Zealand dollar was floated in March 1985; the role of intervention has been deliberately reserved for cases of "extreme disorder". It is sometimes asked whether use of this tool should be considered in order to mitigate some of the difficulties associated with a floating exchange rate. The Reserve Bank's standard response to this question is that after 15 years of not having intervened, the threshold for intervention is high, and that there may be reputational issues associated with intervening in circumstances other than demonstrable crisis (Reserve Bank, 2000). Nevertheless, for the purpose of this paper it may be useful to debate this position.

The formal statistical evidence is relatively equivocal on whether central bank intervention is effective in moving exchange rates in the manner desired. Markets nevertheless remain rather attentive to central bank intervention. If the Reserve Bank were to change the current policy of non-intervention, an obvious objective of the new policy would be to smooth out the extreme tops and bottoms of the exchange rate cycle, intervening only when movements no longer seem in line with fundamentals.

Such an approach presupposes that 'overshoots' in the exchange rate are largely driven by market dynamics or 'herd effects'. It is also possible that the exchange rate cycle is actually driven by monetary policy itself, perhaps as a result of interest rate responses to demand conditions in the non-tradable sector. Under such circumstances, intervention would probably not be very effective.

Would an alternative policy on foreign exchange intervention have had a material impact on the recent exchange rate cycle in New Zealand? There is little doubt that the exchange rate would still have appreciated very strongly under the influence of the high New Zealand interest rates during the mid-1990s even if sterilised intervention had been used to even out exchange rate peaks and troughs. Nevertheless, there is also little doubt that the real exchange rate became overvalued during that time[3]. If sterilised intervention had succeeded in reducing the extent of the exchange rate appreciation, even by only a couple of percentage points, then some of the costs of that overvalued exchange rate could have been avoided. In turn, this may have reduced any incidence of "hollowing out", as discussed above. Unfortunately, it is just as difficult to assess the benefits of limiting large exchange rate cycles as it is to estimate their costs. This is an area with plenty of scope for more research.

Using monetary policy to influence the exchange rate

In the global context, the issue is unresolved whether monetary policy in a floating rate system should be used in the short run to try to affect the exchange rate.

[3] See Brook & Hargreaves (2000, 2001) for estimates of the equilibrium real exchange rate.

There is a large but inconclusive literature on the desirability of including exchange rate movements into the loss function of central banks. At face value it would seem that an inflation-targeting central bank should respond to exchange rate movements only in so far as they affect inflation. But to the extent that policy-makers care about the real side of the economy, then central banks might wish to respond to asset price movements (such as the exchange rate) for reasons other than their impact on inflation.

Fischer (2001) has suggested that the issue is not unlike that of how monetary policy in an inflation targeting framework should respond to movements in output and unemployment. In particular, there is almost certainly some short-run tradeoff between the real exchange rate and inflation, analogous to the Phillips curve. It is a valid policy question how an inflation targeting monetary authority should best deal with this tradeoff.

At the Reserve Bank, our response to this tradeoff has evolved over time[4] as inflation expectations have become better anchored and as the extent of exchange rate passthrough has declined[5]. Currently our approach is to 'look through' the direct one-off price level effects that stem from exchange rate changes, and to focus more predominantly on the demand effects of exchange rate movements. However, we have not closely considered what impact this policy approach may have on the magnitude and duration of the exchange rate cycle itself.

In any case, it is not obvious how the central bank could exert a significant influence on the real exchange rate cycle while maintaining an inflation target.

4.3 A currency union for New Zealand?

Of particular relevance to the Reserve Bank is the sometimes-voiced suggestion that New Zealand enter a currency union with a large trading partner, such as Australia or the United States. The arguments in favour of a currency union have been the standard optimum currency area cost-benefit analysis: New Zealand would gain microeconomic efficiency and and would become more integrated with partner economies, at a cost of losing monetary policy independence.

Various central aspects of the costs and benefits of this are continually being examined, though with few clear-cut recommendations emerging so far (for a survey, see Bjorksten 2001). This is not particularly surprising per se. Similar exercises were conducted in various European countries prior to the launch of EMU, with much clarification of the dimensions and issues but with the same lack of conclusive evidence in favour of one side or the other.

In synopsis of the European studies, the microeconomic benefits relate to the response of production to lowered transaction costs and enlarged markets, and this depends in part on a host of integration-related policy measures (including competition policy, harmonisation of regulations, financial sector consolidation, etc.), which necessarily in some form accompany the adoption of a currency union. On the other side of the ledger, the costs relate to harmonisation of business cycles, the likelihood of large asymmetric shocks, and the limits to rapid price and wage adjustment. For both the costs and the benefits, the bottom line effects of a currency union over time are subject to a large amount of uncertainty, and the decision to proceed was therefore more politically than economically driven.

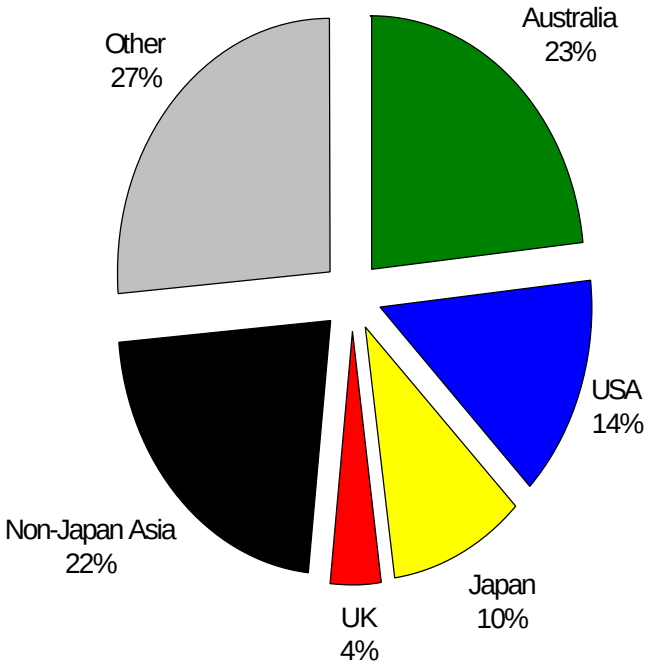
[4] See Brook (2001) for a discussion of this evolution.
[5] See Hampton (2001) for a discussion of the recent changes in exchange rate passthrough in New Zealand.

Nevertheless, even without trying to quantify costs and benefits, one important line of argumentation is that changes to the global economic environment have led to lower costs and greater benefits of a currency union today than would have been the case in earlier decades, and a continuation of these trends will eventually result in the desirability of abandoning an independent currency in New Zealand (Coleman, 1999).

It is important to recognise the very real limitations of drawing parallels between the European experience and the New Zealand context. There are at least three major differences worth noting.

First, New Zealand trade is highly diversified across trading partners. As Figure 9 shows, a currency union which eliminates exchange rate volatility with one trading partner will not remove exchange rate volatility for most of the tradables sector.

Figure 9: New Zealand imports shares of major trading partners, 2001



A second major difference between the European context and what applies to New Zealand is the fact that for small European countries, the status quo was not an option. A currency union was emerging, with major implications for the economic environment, and the decision for most EU members was whether or not to take part in it. Thus the studies that they conducted assessed the general consequences of the emergence of the EMU, the effects of the EMU on the national economy in the event of participation/non-participation, appropriate national economic policy under each alternative, and currency exchange arrangements between the EMU insiders and outsiders.

For New Zealand, the choice is between the status quo and adopting the currency of a much larger country or bloc of countries, probably with little effective representation in the setting of any supposedly common monetary policy. The question to consider would thus be the desirability of an effective dollarisation.

To date, the arguments favouring dollarisation have been directed primarily towards developing countries. No other countries that are starting from a situation of successful

management of inflation with a floating exchange rate have seriously considered dollarisation. Buiter (2000, p23), writing on the case of Iceland, forcefully argues that this is only to be expected:

> "Unilateral 'euroisation', where a 'peripheral' country simply adopts the currency of another ('centre') nation, without a fair share of the common seignorage, without access to the discount window and other lender of last resort facilities, and without a voice in the decision making processes of the centre's central bank should be of interest only to a chronically mismanaged economic basket case, whose only hope of achieving monetary stability is to unilaterally surrender monetary sovereignty."

Because of the established success and credibility of New Zealand's inflation targeting monetary policy, the benefits to New Zealand of dollarisation are probably limited to those that derive from standard optimal currency area arguments, i.e., expanded trade and economic integration, so insights from the dollarisation literature and examples are of limited applicability.

The third difference between the European and New Zealand contexts concerns the timing of any decision to abandon the domestic currency; that is, whether there is sufficient convergence in business cycles at the moment of currency unification. This is a factor over which New Zealand would have fairly complete control; because the status quo remains an option for New Zealand, there is more or less complete flexibility in choosing when to abandon the national currency, if at all. For most European countries, the timing was predecided.

Eichengreen (2000) has suggested that timing should be part and parcel of a currency union decision. Similarly, Lars Calmfors has repeatedly pointed out the long-lasting negative effects in Europe of even short run macroeconomic disturbances, namely high and persistent unemployment and/or inflation at various periods in recent economic history. Both economists come out strongly in favour of synchronising business cycles before joining a monetary union. In effect, the timing consideration was one of Sweden's justifications for staying out, and remains a central issue to the UK. Given greater product and labour market flexibility, these issues are probably less concerning for New Zealand than Europe, although no-one would presumably advocate that New Zealand adopt the currency of a booming economy at the same time as it is heading into a downturn.

5. Summary and conclusions

New Zealand is a developed small open economy that enjoys a high degree of integration into global financial markets. Inflation targeting and a policy of non-intervention in currency markets have so far proved effective in maintaining price stability and avoiding currency crises, and seems to provide appropriate incentives to the private sector to hedge currency risk. To date we are happy with our current approach, and the burden of evidence is high before we are ready to switch from a policy of non-intervention.

Nevertheless, changes to the thinking about optimal exchange rate regimes have been substantial in recent years. We are keeping an eye on developments.

The question of modifying New Zealand's exchange rate policy has arisen not because of any concerns about unsustainability or exposure to the risk of crisis, but rather because of disappointment over a slower relative growth performance compared with the rest of the OECD member countries. There is an awareness that small open economies could suffer

greater adverse consequences of a floating exchange rate regime than do larger economies, so the subject is worth some careful examination. There is also an awareness that floating exchange rates today do not deliver as many benefits as was previously anticipated, and the example of EMU in Europe is providing new evidence on relative costs and benefits of a currency union arrangement among developed countries.

Because of these motivations for change, the issues of the recent dollarization literature, in which a country enters a common currency arrangement for the monetary policy credibility benefits, have been more or less irrelevant here.

The role of the Reserve Bank in New Zealand's overall growth strategy is generally seen as only a supporting one. By maintaining low and stable inflation and ensuring financial sector soundness, it reduces risk for lenders and ensures a lower real interest rate than would otherwise be the case. The Reserve Bank cannot by itself directly increase trade, spur investment or otherwise directly promote growth over the long term via activist policy. Nevertheless, the Reserve Bank has a role to play in fostering informed debate about changes to institutional arrangements, insofar as they affect the financial sector and/or the conduct of monetary policy.

We would like to encourage further research in this field.

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