
The current state of New Zealand monetary union research

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This article surveys recent thinking on the topic of currency unions, separating out and presenting the lessons that apply to the New Zealand context. A decision on joining a currency union is predominantly political, and would probably be accompanied by other complementary measures that also further economic integration. Nevertheless, such a decision has implications for financial markets, the economy in general and the institutional role of the Reserve Bank. For all of these reasons, the Reserve Bank will continue to monitor the literature on the subject, and occasionally contribute to it, in order to facilitate informed debate in New Zealand.

1 Introduction

The issue of a trans-Tasman currency union has in recent years occasionally been floated in public debate. Currency union issues have in general become more prominent as the world moves toward closer economic integration in trade agreements, more open capital markets and closer financial sector linkages. While the currency union issue is predominantly political, and such a union is usually but one measure among several aimed at increasing economic integration, it is also a measure that fundamentally affects the role and functions of the central bank.

This article surveys our current understanding of currency unions, with a particular view toward drawing lessons for the New Zealand context. It does not take a position for or against a trans-Tasman currency union. Rather, it formulates a range of questions and outlines a work agenda for further research, so that economic implications of a currency union can be more fully understood.

The principal consideration guiding New Zealand economic policy is to find a better path for sustainable growth. A currency union would conceivably help to achieve this through three mechanisms:

- international trade may increase, which in turn may result (directly and indirectly) in faster growth and higher welfare;
- price stability may be maintained with lower real interest rates, on average; and
- common currency arrangements might lower the susceptibility of the economy to disruptive shocks.

These benefits do not come without costs, however, and a decision to permanently abandon the national currency and monetary policy of New Zealand would have to be preceded by a careful study of the pros and cons. There have already been several research and/or policy papers written, by academics and by staff at Treasury and the RBNZ, which address bits and pieces of the issue. These are discussed below, and put into the context of our current understanding of the issue as a whole.

To gain an overview of what questions have yet to be fully addressed, we can start by using as benchmarks the comprehensive studies that were commissioned by governments of other countries recently faced with the issue of abandoning their domestic currencies. Such countries include Sweden (report of the Calmfors commission, 1996) and Finland (report of the Economic and Monetary Union expert group appointed by the Prime Minister, 1997). Comprehensive government-commissioned reports were in each case complemented by a host of more detailed, focused studies by interest groups and institutions, which covered regional development, European Union institutional mandates, social security, labour market adjustment, etc. Canada and the United Kingdom have also had public debates on the currency union issue, and systematic reports from these countries are also taken into account in this overview.

The Economic and Monetary Union (EMU) debate was largely conducted within the framework set by the theory of optimum currency areas. Subsequent developments in the world economy, in particular the Asian crisis of 1997-98, have expanded the discussion on the global financial

architecture to include new arguments in favour of fewer currencies, and of dollarisation in particular. This debate is worth some comment as well, since it has sometimes been interpreted as suggesting that small countries (perhaps including New Zealand) can no longer consider their own national currencies as viable in the long run.

Section 2 presents the economic arguments for and against monetary unions, as they have been applied in practice in recent years. Section 3 discusses lessons from the debates in Europe and Canada. Section 4 focuses on the New Zealand context, presenting the future work agenda and summarising what has already been done. Section 5 concludes the article.

2 Optimal currency area approach versus viability approach

EMU countries' research on monetary unions was initiated in the early 1990s, when the conventional wisdom on currency unions was dominated by the Optimal Currency Area (OCA) intellectual framework, as intellectually pioneered by Robert Mundell in 1961. The crux of the traditional OCA literature is that there is a trade-off between, on the one hand, increased microeconomic efficiency through more trade, and on the other hand reduced macroeconomic flexibility, to choose an inflation rate to suit the domestic economy. The use of a common currency simplifies financial transactions and expands trade, dramatically according to some research¹, with a corresponding positive net impact on both national and world welfare. At the same time, the monetary authority abandons the capability to pursue a counter-cyclical policy that responds to uniquely-national economic conditions.

A large increase in the number of small independent countries has highlighted the question whether it makes economic sense for all or even some of these countries to maintain their own currencies. Since Mundell's original article, arguments in favour of expanded optimum currency areas

have been strengthened by two factors². First, globalisation has integrated many countries more closely, thus increasing the scope for benefiting from a common currency. Secondly, conventional wisdom has gradually converged around the thinking that central banks should focus on price stability. This probably decreases the cost of abandoning national monetary policies, provided that the central bank of the currency union has good credibility in maintaining price stability.

According to the traditional OCA reasoning, in order to benefit from forming a currency union, countries should have high cross-border mobility of inputs as well as outputs. Crucially, in the context of the 1999 launching of EMU, all EU countries had already earlier in the decade agreed to a programme of liberalising further intra-Union flows of goods, services, capital and labour.

Like-mindedness about policy targets is also essential. To ensure such like-mindedness in Europe, countries were prohibited from adopting the common currency unless a harmonisation of policy frameworks and business cycles had taken place. In order to formally qualify for EMU membership, EU countries were required to adhere to the Maastricht treaty limits on inflation, budget deficit and government debt. They also committed to maintaining exchange rate stability for two years prior to adopting the euro, and adhering to the provisions of a Stability and Growth Pact after becoming members. Notably, the EU countries that did not join the EMU in its founding phase either did not satisfy the formal criteria as laid out above (Greece and Sweden), or opted out because they were concerned that they still did not belong in an optimal currency area with the countries that did join (Denmark and the UK, and to some extent Sweden as well).

The main concern about joining a currency union has generally been the likelihood that economic shocks will be asymmetric across member countries. In particular, eurosceptics have worried aloud that, in the absence of independent monetary policies, the remaining available adjustment mechanisms to offset such shocks will not be effective enough.

¹ See Rose (2000); Rose and Engel (2001); Frankel and Rose (2000). The results of this line of research has been widely questioned, however, by eg Eichengreen (2001), Smith (2001), Rodrik, and Quah (the latter two in informal comments available on the authors' respective websites).

² See Alesina and Barro (2000); Coleman (1999).

The asymmetric shocks argument, eloquently articulated by Mundell in 1961, has actually subsequently been disowned by its author. Mundell's later view (articulated in 1973) argues that the common currency itself will mitigate asymmetric shocks by allowing for better reserve pooling and portfolio diversification. A negative shock affecting only one country in a currency union would find that country running down its currency holdings and cushioning the impact of the loss, drawing on the resources of other members until the cost of adjustment has been efficiently spread over the future. The upshot of this reasoning is that in a common currency area, shocks and business cycles should preferably be asymmetric and unsynchronised, respectively. When shocks are asymmetric, there is a shock absorbing benefit to being in a currency union, which disappears when shocks are perfectly symmetric.

In other words, if all member countries in the euro area were to experience a downturn symmetrically, an individual country should experience the same exchange rate hit, whether or not they were in a currency union. By contrast, with an asymmetric shock, the exchange rate would take less of a hit under a currency union regime than if it were independently floating. This insurance benefit of a currency union is worth closer attention.

The gains from such risk sharing through portfolio diversification, made possible by the existence of a common currency, would show up as a net reduction in interest rate risk premia for the system as a whole. Coleman (1999, p28) suggests that for small countries the relatively low degree of risk diversification available leads to "quite high" welfare costs in maintaining a separate currency.

Since the introduction of the euro in 1999, financial markets have deepened and broadened³, and there has indeed been a remarkable convergence of European interest rates at lower average levels than in the past (McKinnon 2000a). Lessons from this are no doubt being carefully studied in the UK, Sweden and Denmark, and merit consideration in New Zealand as well.

³ An informative initial assessment of European financial markets after EMU is contained in Danthine *et al* (2000), as well as ECB (2001a,b,c).

Viability

In recent years, conventional wisdom on common currency areas has added another new dimension that was not present in the traditional optimal currency area thinking. Since the Asian crisis of 1997-98, fundamental questions have been raised regarding the viability of independent currencies in small countries. Might New Zealand be "too small" for an independent currency to remain viable in an increasingly globalised world with free capital movements?

Historically, small economies, both industrialised and developing, have almost never ignored exchange rate considerations in their macroeconomic policy strategies. The conventional wisdom from before the Asian crisis was that macroeconomic stability in small economies can be well served by fixing exchange rates while retaining the option to adjust the peg, or at least intervening periodically as needed to limit exchange rate movement. One reason for this was that thinness in markets for small currencies caused costly exchange rate volatility. In this view, a floating exchange rate can cause destabilising shocks rather than act as a shock absorber. Other reasons pertained to countries with weaker institutional structures; fixed (but adjustable) exchange rates forced greater fiscal discipline and were a useful way to import price stability from an anchor currency.

With the globalisation of capital markets and the liberalisation of short-term capital flows, countries with fixed (but adjustable) exchange rates may have become more susceptible to catastrophic financial crises.⁴ A fixed exchange rate reduces the incentives for hedging currency mismatches in revenues and expenditure, and balance sheet positions, and it also removes a "braking mechanism" that a floating rate offers in a capital outflow environment. A sudden loss of confidence in a currency can thus cause extensive damage to corporations, banking systems and government finances. To protect against this risk, a polarisation in exchange rate regimes might be taking place, whereby countries either adopt stronger versions of pegs (such as currency unions,

⁴ Fischer (2001) observes that soft peg systems have not proved viable over any lengthy period in countries that are well integrated into international capital markets, including European countries in the 1980s and 1992, and emerging markets 1994-98.

currency boards and outright dollarisation), or abandon fixed rates altogether in favour of floating exchange rates with inflation targeting.⁵

If the crux of the traditional OCA literature was trading away flexibility in pursuing an independent monetary policy in return for expanded benefits from trade, the crux of the dollarisation literature is trading away macroeconomic flexibility in return for greater macroeconomic credibility. This credibility improves access to external financing and lowers real interest rates, thus making possible much more investment as well as consumption on credit.

The dollarisation debate thus takes a very different approach than that of the optimum currency area literature. As Eichengreen (2001, pp 2-3) observes, the debate is

“about financial stability and whether dollarisation is a means of enhancing it. It is about fiscal stability and whether budget balance is easier to attain after dollarisation. It is about economic reform and whether dollarisation is an effective means of encouraging it. These are issues about which the theory of optimum currency areas has little to say”.

In the New Zealand context, the dollarisation debate arguably does not have many insights to offer. This ongoing debate centres on countries that have nothing in common with New Zealand, other than being small and open. Unlike New Zealand, they tend to have shallow capital markets, fragile institutional structures and less credibility in monetary and fiscal policy soundness. Nonetheless, for the sake of completeness in illuminating the debate, some salient observations on the most recent literature are included below.

Calvo (2000) has compared the pros and cons of inflation targeting vis-a-vis dollarisation, as seen from the perspective of an economy that is moving from a soft peg to one of the extremes (ie: floating exchange rate versus rigid peg). His findings are that floating with inflation targeting has no clear advantage over dollarisation. For cases in which policy-

makers' credibility is a major issue, dollarisation is preferable because it is more transparent and effectively draws on the established credibility of US monetary policy. Information on a price index is only available after a lag, and an inflation-targeting central bank can only influence this index indirectly.

What about the experience of small countries with floating exchange rates? There may be fewer of these than it would at first appear. Over the past 15 years, many small economies with floating exchange rates exhibited less high frequency exchange rate volatility than in the case of the major world currencies. This, according to Calvo and Reinhart (2000), is evidence of what the authors call “fear of floating”, ie monetary policy has at times been run with a view to smoothing exchange rate movements. A consequence of this has been high interest rate volatility. This again illustrates the point that small open economies can seldom afford to be indifferent about movements in the exchange rate.

Monetary authorities in many emerging markets intervene in currency markets without explicitly pegging an exchange rate. For Southeast Asian crisis economies in particular, the evidence suggests an effective high frequency (day-to-day) pegging to the US dollar before the 1997-8 crisis. By 2000, this peg had in practice been resurrected in almost all of the countries, although at lower frequencies – monthly or quarterly – exchange rates drift more widely (McKinnon 2000b). Many economies appear to successfully operate managed floats with broad bands.

McKinnon shows that high frequency pegging is a reasonable policy choice under circumstances where three conditions jointly hold: (i) there is free mobility of capital across well-integrated markets; (ii) the domestic currency cannot be used to borrow abroad; (iii) the government does not want to impose (or cannot enforce) draconian rules on institutions against assuming any open foreign exchange position⁶. Typically, short-term foreign currency loans are used to finance long-term investment by domestic firms, implying a mismatch in both currencies and maturities. This is not due to a lack of foresight; in many emerging markets, there are no markets for medium or longer-term domestic bonds bearing fixed rates of interest. Given high interest rate differentials

⁵ The number of exchange rate “floaters” has been exaggerated, according to Calvo and Reinhart (2000) and McKinnon (2000), who contend that many supposed “floaters” during the Asian and Russian crises have in practice returned to pegged exchange rate practices. Fischer (2001) acknowledges this. Nevertheless, the point remains that many countries have also seen fit to abandon their national currencies altogether.

⁶ It is in any case notoriously difficult to regulate effectively corporate sector financing.

between domestic and foreign currencies, the cost of forward cover, if available at all, is unacceptably high. Under such conditions, keeping the exchange rate steady over the day-to-day or week-to-week time frame over which foreign currency debts are incurred and repaid provides an informal hedge and makes possible many transactions that would not otherwise take place. Unfortunately, it also perpetuates a loan maturities mismatch, as such a policy subsidises large-scale short-term borrowing in foreign currency, constantly rolled over.

In this view, a first-best policy would invoke regulations that prohibit net foreign exchange exposure by financial institutions with short-term assets or liabilities. The corollary to this, however, is that the government would be forced to take an active role in facilitating the foreign exchange market on a day-to-day basis. In this case, the authorities might as well keep the rate stable. The step from this to moving to long-term official exchange rate parity (fixing the exchange rate) is not large, and the latter measure provides a valuable incentive for domestic and foreign finance to lengthen the term structure. While not strictly necessary, adoption of a common currency or dollarisation would achieve the same result, as has been observed by eg Hausmann (1999). Nevertheless, there is currently widespread scepticism regarding the performance of pegged regimes in the event of large exchange rate shocks, including the potential for unhedged entities to sustain large currency losses.

In summary, arguments exist for abandoning independent national currencies and monetary policies on (i) "traditional" OCA grounds, which emphasise welfare gains from expanded trade; (ii) "new" OCA grounds, which emphasise removal of currency risk premia in interest rates, better portfolio allocation due to development of capital markets and elimination of home bias; and (iii) crisis avoidance grounds, which emphasise a reduction in financial fragility and an increase in institutional robustness. In the case of New Zealand, at least the first two sets of arguments are relevant and deserve to be carefully examined.

3 Lessons from Europe and Canada for the New Zealand case

The reports of European countries considering EMU participation can serve as a useful benchmark. A comprehensive body of research on currency unions in the New Zealand context should consider the full range of microeconomic, macroeconomic and political effects of a currency union that were considered by countries contemplating EMU.

Microeconomic effects pertain to transaction costs, foreign trade, investment and growth, and competitiveness.

Macroeconomic effects include those relating to interest rates, inflation and maintenance of macroeconomic stability, ie the possibilities should be examined of counteracting shocks to output and employment under circumstances of no independent monetary policy.

Political effects considered in the European studies included consequences of the decision on wider European economic co-operation, the public accountability of the common central bank and monetary policy, and the political voice of the national constituency in the context of a larger union. While these political aspects fall largely outside the competence of central banks, they have proven to be a central component of the ultimate decision on currency arrangements both in Europe and in Canada⁷, and the same would in all probability be true in the New Zealand context as well.

In every other country, the currency union debate has dealt with a package of measures designed to further integration, including redesigned governance structures, rather than just the exchange rate component. Nevertheless, consistent with the institutional role of the central bank, this article will bypass the political element of the discussion and concentrate on clarifying the economic arguments.

Conclusions of other countries' research

Notably, there were essentially no scientifically-uncontestable conclusions that emerged from this research; all final positions were based at least in part on subjective assessments and

⁷ See eg Laidler (1999), Buiters (2000) and Issing (2001).

on-balance judgement calls. It was apparent that there are both pros and cons associated with abandonment of the domestic currency. The main issues are listed below.

Exchange rate risk

The extent to which economies would be able to benefit from new exchange rate arrangements was thought to depend largely on how households, businesses, interest groups, etc adjust their activities to take advantage of new opportunities. This was very hard to predict in Europe, and remains a grand experiment. Abolition of exchange rate risk for a large portion of trade implies an obvious cost saving, and the reduction in uncertainty should make businesses more interested in larger and longer-term investments across markets.

The reduction in exchange rate risk was expected to affect small and medium size enterprises the most. Smaller enterprises are less able to hedge exchange rate risk effectively, and thus often limit exposure to cross-border production, export and financing. As a consequence, a common currency was expected to result in better cross-border networking and many new subcontracting arrangements. This in turn would result in greater competitiveness and efficiency in production.

Importing credibility

Although most EMU countries had well-established and credible independent monetary policies, several countries (such as Italy, Spain or Finland) seemed to have real interest rates that embodied a significant country risk premium, possibly associated with depreciation risk. The adoption of the euro was expected to reduce this premium by importing monetary policy credibility from the German Bundesbank. This effect was in fact realised, and real interest rates fell to historical lows. This in turn has fuelled a boom in consumption and investment. Lest this be interpreted as unambiguous evidence that bigger is always better, research in Switzerland⁸ suggested that the Swiss economy would

dilute credibility by linking to the euro, and thus suffer higher interest rates than if Swiss monetary independence were maintained.

Asymmetric shocks

The biggest challenge posed by currency union arrangements is traditionally seen to be how to handle the divergence of national developments from those of the currency union on average, when national monetary policy was no longer available as a tool. Most European research has portrayed asymmetric shocks as unambiguously undesirable, on the grounds that they raise the costs of membership in a currency union.

The European case studies have focused on assessing the likelihood of large asymmetric shocks, by examining differences in economies' sectoral compositions, and the likely flexibility of labour markets under the new circumstances of a currency union. Understanding the status quo is a non-trivial empirical matter; even more serious difficulties arise when predicting future shock patterns. Frankel and Rose (1996) find that, over time, economies in a currency union will increase interdependence and trade exposure, their business cycles will harmonise and they will become an optimum currency area endogenously⁹. On the other side, Krugman and others have suggested that to benefit fully from the greater opportunities for trade which are supposed to result from a currency union, countries will need to specialise further in production structures. Such increased specialisation will invariably increase the asymmetry of shocks.

Lessons on the importance of asymmetric shocks are still in the process of being drawn from the EMU. At present, the debate centres on divergence of inflation and growth rates, with the attention-getting outlier being Ireland. Sceptics predict an eventual crisis for the system, while supporters (see eg Blanchard 2001) claim that Ireland's faster growth is, to a large extent, justified by a higher potential growth than the rest of Europe. This higher potential growth results from labour inflow (migration) and higher productivity growth. The inflation differential is also partly justified by "catching-

⁸ See UBS Group, 2000. It should be noted that financial sector firms in Switzerland are bound to be biased against Swiss accession to EMU, since it would reduce business that derives from the Swiss franc's reserve currency status and the country's traditional position as a "safe haven".

⁹ Masson and Pattillo (2001) point out that the track record of some monetary unions in Africa does not support this conclusion.

up” arguments, whereby countries with relatively low per capita incomes experience faster growth and higher inflation until the differences in incomes and price levels have been eliminated.¹⁰

Outcomes of debates in other countries

Sweden ultimately decided against joining the EMU. The main economic justification for this was fears that Sweden was not prepared to risk potential asymmetric shocks until more work had been done on improving the flexibility of labour markets. Until Sweden had developed new instruments of stabilisation policy to replace the role of an independent monetary policy, and the Swedish business cycle had been brought into phase with the large EMU countries, Sweden was not prepared to relinquish the exchange rate shock absorber.¹¹

Finland did decide to join the EMU. In this case, the risk of asymmetric shocks was downplayed, with the government observing that historically, major shocks have been due largely to political factors, and would have been mitigated had Finland been in an EMU-type of arrangement at the time. Early evidence for increased stability under the EMU was provided shortly after the Finnish decision to participate. During the August 1998 financial crisis in Russia, the Finnish markka remained stable against major currencies, whereas the Swedish krona depreciated suddenly and substantially.

In the Canadian debate on a so-called North American Monetary Union (NAMU), the expected benefits of a currency union have so far been seen to be outweighed by two costs, one economic and one political. The economic argument is two-pronged. First, Canadian production remains heavily commodity-based, whereas US production is not, so that asymmetric shocks would be frequent and sometimes large. Second, labour market flexibility in Canada is poor, and inter-country labour mobility within NAMU would remain restricted. Under the circumstances, the expected economic benefits of NAMU have so far been outweighed by sizeable

expected costs.

The political argument against NAMU, from the Canadian perspective, is the questionable accountability of a common monetary authority to a Canadian electorate. A union-wide payments system underpinned by a common regulatory framework would also most likely reflect non-Canadian political priorities disproportionately. A Canadian electorate would hesitate to delegate key decisions to the United States without gaining greater effective representation there. For New Zealand, similar considerations would no doubt apply.

4 The New Zealand context: desirability and timing of dollarisation

The Finnish and Swedish comprehensive pre-EMU studies provide a useful benchmark for New Zealand in approaching currency union issues. Nevertheless, the debate has progressed considerably since the mid-1990s, with lessons available from the European experience as well as new thinking on global financial flows. Moreover, the New Zealand context differs in important ways from that of the Europeans.

One major difference between the terms of reference of the comprehensive studies mentioned above, and what applies to New Zealand, is the fact that in Europe the status quo was not an option. A currency union was emerging, with major implications for the economic environment, and the decision was whether or not to take part in it. Thus, the reports 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 primary questions to consider would thus be the desirability and timing of an effective dollarisation.

¹⁰ These effects were observed and explained in the early 1960s by Balassa and Samuelson, and are known as Balassa-Samuelson effects.

¹¹ In practice, the decision may have been based more on political arguments. Calmfors (2000) has suggested that domestic political factors of the ruling party were the deciding factor, and the Calmfors report simply provided an expedient economic justification.

The literature on dollarisation

As mentioned above, 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.”

Nevertheless, a diversity of exchange rate regimes still exists among the developed economies. Fischer (2001, table 1) 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.

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, ie expanded trade and economic integration. The questions to ask, therefore, are the same as those that European countries asked themselves prior to deciding on participation in EMU.¹²

In addition to the issues that the EMU countries have discussed, it is important to add a discussion of the timing of any decision to abandon the domestic currency. In effect,

the timing consideration was one of Sweden’s justifications for staying out, and remains a central issue to the UK: whether there is sufficient convergence in business cycles at the moment of currency unification. 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.

Eichengreen (2000) has suggested that timing should be part and parcel of a currency union decision. Similarly, Calmfors (2000) has 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. 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 should adopt the currency of a booming economy at the same time as it is heading into a downturn.

The characteristics of migration have recently been studied in some detail by eg Bushnell and Choy (2001), and Glass and Choy (2001). These studies suggest that more attention should be paid to the role of migration as an economic stabiliser. In this respect, New Zealand shares more characteristics with Ireland than with most of the other European economies. Recall that in Mundell’s original framework, this type of factor mobility largely defines an optimal currency area.

Recent New Zealand research

During the past three years the Reserve Bank has published six substantive papers on various aspects relevant to currency union membership. These are, in order,

- “Issues relating to optimal currency areas: theory and implications for New Zealand,” by David Hargreaves and John McDermott, *Reserve Bank of New Zealand Bulletin* vol 62, no 3. This paper provides a broad overview of the costs and benefits associated with currency unions, with an emphasis on comprehensiveness rather than on depth.

¹² This does not imply that country risk reduction is not a factor. Hawkesby, Smith and Tether (2000) have found a non-negligible effect, but it is unlikely to be larger than was the case for several European countries that joined EMU.¹³ This problem has also been identified in Feldstein (2001).

- “Can hedging insulate firms from exchange rate risk?” by Andy Brookes, David Hargreaves, Carrick Lucas and Bruce White, *Reserve Bank of New Zealand Bulletin* vol 63, no 1. This paper examines available options for hedging against exchange rate risks, with a view to implications for trade. A main finding is that longer-term hedging is expensive and may create risks as well as alleviate them.
- “How New Zealand adjusts to macroeconomic shocks: implications for joining a currency area,” by Sharon McCaw and John McDermott, *Reserve Bank of New Zealand Bulletin* vol 63, no 1. This paper considers how the New Zealand economy might adjust to shocks in the absence of an independent monetary policy. Mechanisms discussed include factor mobility, relative price and wage flexibility and fiscal transfers. It is taken as self-evident that the more symmetrically that shocks affect the countries in a currency union, the better.
- “New Zealand’s currency risk premium,” by Christian Hawkesby, Christie Smith and Christine Tether, *Reserve Bank of New Zealand Bulletin* vol 63, no 3. This work establishes that there exists a material interest rate differential between New Zealand and the USA, corresponding to country risk.
- “Would adopting the Australian dollar provide superior monetary policy in New Zealand?” by Aaron Drew, Viv Hall, John McDermott and Robert St Clair, *Reserve Bank of New Zealand Discussion Paper* 2001/03. This paper discusses counterfactual experiments with the Reserve Bank’s macroeconomic model to assess macroeconomic costs and benefits that New Zealand would have faced had its currency been credibly fixed to the Australian dollar during the 1990s. In this framework, which does not allow for consequential structural adaptation, an exacerbated business cycle results from removal of an independent monetary policy as a stabilising tool¹³.
- “Exchange rate volatility and Currency Union: Some theory and New Zealand evidence,” by Dean Scrimgeour, *Reserve Bank of New Zealand Discussion Paper* 2001/04. This paper considers the effect of currency

union on exchange rate volatility, presenting evidence that cyclical variability in the New Zealand exchange rate has been greater over the last sixteen years than it would have been in a currency union with either Australia or the United States.

Christie Smith (2001) has also assessed New Zealand’s trade profile with the help of gravity models, drawing on recent work by Andy Rose.¹⁴ This may be extended to look at how a currency union might serve to increase New Zealand’s exposure to international trade. It should be noted, however, that in the gravity models literature, New Zealand, along with Australia, Singapore and Taiwan, seems to be a significant outlier, with relative per capita income levels correlating negatively with distance to trading partners.

Other New Zealand research on currency unions includes microeconomic work by Arthur Grimes (2000) and Grimes, Holmes and Bowden (2000). This body of work points out that a common currency should be viewed as a measure to remove a material non-tariff barrier to trade. The authors proceed to report the results of a survey of 400 businesses regarding attitudes to a hypothetical ANZAC dollar.

Useful “think pieces” on currency unions include two papers by Andrew Coleman. Coleman (1999) provides a useful literature survey on currency unions. Without examining costs and benefits for New Zealand of joining a common currency, this paper argues that advances in economic thinking mean that such an examination would show lower costs and greater benefits today than would have been the case in earlier decades. Coleman (2001) complements this analysis by drawing parallels between New Zealand and the Australian state of Queensland, and between currency markets and commodity futures markets.

The matrix below illustrates some of the remaining gaps in New Zealand research on currency unions (right column). Economic issues are listed in the left-hand column, completed or ongoing work in the middle column.

¹³ This problem has also been identified in Feldstein (2001).

¹⁴ See Rose (2000); Rose and Engel (2001); Frankel and Rose (2000). Gravity models explain trade volumes as a function of economies’ absolute sizes and the distance separating them.

Economic issues to be studied	Work completed	Remaining gaps
<p>Need for independent monetary policy</p> <p>Importance of the exchange rate as a shock absorber</p> <p>Effectiveness of price and wage adjustment</p> <p>Capital and labour mobility</p>	<p>Study of harmonisation of business cycles Drew et al (described above), Hall <i>et al</i>, Haug McCaw and McDermott (described above) McCaw and McDermott (described above)</p>	<p>Study likelihood of large asymmetric shocks, worst case scenario</p> <p>Migration issues should be elaborated upon</p>
<p>How much would adopting a common currency affect trade?</p> <p>Exchange rate risk, hedging</p> <p>Exchange rate risk, liquidity premium</p> <p>Currency volatility</p>	<p>Brookes, Hargreaves, Lucas and White (described above)</p> <p>Hawkesby, Smith and Tether (described above) Scrimgeour (described above)</p>	<p>Short-term risk exposure of financial institutions, implications of regulation</p> <p>Is independent currency destabilising?</p>
<p>Similarity of New Zealand with Australia or USA</p>	<p>McCaw and McDermott (described above)</p>	<p>Drawing implications from a portfolio diversification point of view</p>
<p>Microeconomic growth issues</p> <p>Investment</p> <p>Competitiveness</p> <p>Likely microeconomic response of production</p>	<p>Grimes, Holmes and Bowden</p>	<p>How would investment increase with a currency union?</p> <p>How would competitiveness increase with a currency union?</p> <p>Location of economic activity hasn't been examined. Also, GHB survey results could be compared with empirical results from EMU</p>

Broadly speaking, remaining gaps seem to fall primarily in the areas of microeconomic benefits of a currency union, as well as the impact of a currency union on financial markets. In addition, some gaps remain on the effectiveness of migration as a shock absorber and a pragmatic assessment of capacity to respond to a worst-case scenario.

The Reserve Bank will continue to advance its currency union research in the coming years, both because this important issue may well re-emerge in the public debate in the foreseeable future, and because it affects the Bank's institutional role. An obvious starting point is to examine structural and financial sector developments in Europe, and to see what parallels can reasonably be drawn in the New Zealand context.

5 Concluding remarks

Currency union is ultimately a political decision. It needs to be considered as part of an overall package that is intended to further political and economic integration, and the debate is bound to be driven by more than just economic arguments. In the New Zealand case, the question is not being pressed by macroeconomic circumstances, because the existing exchange rate system is viable and successful. Nevertheless, at the microeconomic level, research into the issue is still important as part of an ongoing effort to better understand the strategic options for improved long-term growth.

A complete body of research on currency union issues in the New Zealand context should cover not only all of the main issues identified by European countries prior to their votes on EMU, but also explicitly consider other factors such as

issues of timing and issues of reducing susceptibility to regional crises. Lessons can also be drawn from the experience of Europe since 1999 and from debates on financial crises in emerging markets over 1994-2001.

To date, several essential pieces of the puzzle have been put into place by the staff at the Bank and others. Nevertheless, important dimensions remain largely unexplored, including the impact on financial markets of a currency union. The exchange rate is, after all, a financial variable, and so it would be surprising not to find a link between dollarisation, for example, and the development of financial markets. The relevant mechanism would be a deepening of bond markets, a reduction in the importance of bank financing and a reduction in "home bias", each of which has been observed in Europe since the introduction of EMU.

Likewise, microeconomic effects of a currency union remain largely unexplored. These include the impact on small and medium size enterprises, firm location issues and changes in sectoral composition and competitiveness.

References

- Alesina, Alberto and Robert J Barro, (2000), "Dollarization," mimeo, December.
- Blanchard, Olivier, (2001), "Country adjustments within Euroland: lessons after two years," mimeo, January.
- Brookes, Andy, David Hargreaves, Carrick Lucas and Bruce White, (2000), "Can hedging insulate firms from exchange rate risk?" *Reserve Bank of New Zealand Bulletin* vol 63, no 1.
- Buiter, Willem, (2000), "Is Iceland an optimal currency area?" Mimeo.
- Bushnell, Peter and Wai Kin Choy, (2001), "Go West, young man, go West," *New Zealand Treasury working paper* 01/7.
- Calmfors, Lars et al, (1996), *Statens Offentliga Utredningar* 158, Stockholm.
- Calvo, Guillermo, (2000), "The case for hard pegs in the brave new world of global finance," mimeo.
- Calvo, Guillermo and Carmen Reinhart, (2000), "Fear of floating," *NBER Working Paper* no 7993.
- Coleman, Andrew, (1999), "Economic integration and monetary union," *New Zealand Treasury working paper* 99/6.
- Coleman, Andrew, (2001), "Three perspectives on an Australasian monetary union," mimeo, August.
- Danthine, Jean-Pierre, Francesco Giavazzi and Ernst-Ludwig von Thadden, (2000), "European financial markets after EMU: a first assessment," *NBER Working Paper* no 8044.
- Drew, Aaron, Viv Hall, John McDermott and Robert St Clair, 2001, "Would adopting the Australian dollar provide superior monetary policy in New Zealand?" *Reserve Bank of New Zealand Discussion Paper* 2001/03.
- ECB, 2001a, "The Euro money market," *European Central Bank report*, July.
- ECB, 2001b, "The Euro bond market," *European Central Bank report*, July.
- ECB, 2001c, "The Euro equity markets," *European Central Bank report*, August.
- Eichengreen, Barry, (2000), "When to dollarise," *Journal of Money, Credit and Banking*, forthcoming.
- Eichengreen, Barry, (2001), "What problems can dollarisation solve?" Mimeo, January.
- Feldstein, Martin, (2001), "Economic problems of Ireland in Europe," *NBER Working Paper* 8264, May.
- Fischer, Stanley, (2001), "Exchange rate regimes: is the bipolar view correct?" IMF mimeo.
- Frankel, Jeffrey and Andrew Rose, (1996), "The endogeneity of the optimum currency area criteria," *NBER Working Paper* W5700, August.
- Frankel, Jeffrey and Andrew Rose, (2000), "Estimating the effect of currency unions on trade and output," *NBER Working Paper* W7857, August.
- Glass, Hayden and Wai Kin Choy, (2001), "Brain drain or brain exchange?" *New Zealand Treasury working paper* 01/22.
- Grimes, Arthur, (2000), "Case for a world currency: is an ANZAC dollar a logical step?" *Victoria Economic Commentaries*, October.

-
- Grimes, Arthur, Frank Holmes and Roger Bowden, (2000), "An ANZAC dollar? Currency union and business development," Institute of Policy Studies, Wellington.
- Hall, Viv B, Kunjong Kim and Robert A Buckle, (1998), "Pacific Rim business cycle analysis: synchronisation and volatility," *New Zealand Economic Papers* 32(2), pp 129-159.
- Hargreaves, David and John McDermott, (1999), "Issues relating to optimal currency areas: theory and implications for New Zealand," *Reserve Bank of New Zealand Bulletin*, vol 62, no 3.
- Haug, Alfred A, (2001), "Co-movement towards a currency or monetary union? An empirical study for New Zealand," *Australian Economic Papers* 40(3) pp 307-17.
- Hausman, Ricardo, (1999), "Should there be five currencies or one hundred and five?" Foreign Policy, Fall.
- Hawkesby, Christian, Christie Smith and Christine Tether, (2000), "New Zealand's currency risk premium," *Reserve Bank of New Zealand Bulletin* vol 63 no 3.
- Issing, Otmar, (2001), "Economic and monetary union in Europe: political priority versus economic integration?" Mimeo, February.
- Lafrance, Robert and Pierre St-Amant, (1999), "Optimal currency areas: a review of the recent literature," *Bank of Canada working paper* 99-116.
- Laidler, David, (1999), "The exchange rate regime and Canada's monetary order," *Bank of Canada working paper* 99-7.
- Masson, Paul and Catherine Pattillo, (2001), "Monetary union in West Africa (ECOWAS): is it desirable and how could it be achieved?" *IMF Occasional Paper* 204, Washington DC.
- McCaw, Sharon and John McDermott, (2000), "How New Zealand adjusts to macroeconomic shocks: implications for joining a currency area," *Reserve Bank of New Zealand Bulletin* vol 63, no 1.
- McKinnon, Ronald I, (2000a), "Mundell, the Euro, and optimum currency areas," Stanford University mimeo, May.
- McKinnon, Ronald I, (2000b), "After the crisis, the East Asian dollar standard resurrected: an interpretation of high frequency exchange-rate pegging." Stanford University mimeo, August.
- Mundell, Robert, (1961), "A theory of optimum currency areas," *American Economic Review*, September, pp 657-65.
- Mundell, Robert, (1973), "Uncommon arguments for common currencies," in H G Johnson and A K Swoboda, *The Economics of Common Currencies*, Allen and Unwin, pp 114-32.
- Murray, John, (1999), "Why Canada needs a flexible exchange rate," *Bank of Canada working paper*, pp 99-112.
- Rose, Andrew, (2000), "One money, one market: estimating the effect of common currency on trade," *Economic Policy*, April, pp 7-46.
- Rose, Andrew and Charles Engel, (2001), "Currency unions and international integration," revised version of *NBER Working Paper W7872*, mimeo, April.
- Scrimgeour, Dean, (2001), "Exchange rate volatility and currency union: Some theory and New Zealand evidence," *Reserve Bank of New Zealand Discussion Paper* 2001/04.
- Smith, Christie, (2001), "Distance, antipodean trade, gravity models and currency unions," mimeo, June.
- UBS Group Economic Research Studies, (2000), "The future of the Swiss franc: independence or clinging to the euro boat?" October.