Research Paper
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AMP capital INVESTORS

All things considered...On the Reserve Bank's currency intervention policy

Executive summary

- The Reserve Bank of New Zealand recently intervened in the New Zealand currency market for the first time since the 1985 currency float.
- We think the Bank is operating a policy of 'leaning against the wind'. This should shave a few cents off the peaks and troughs of the exchange rate, thereby helping to avoid unnecessary instability in the economy.
- Such a policy has sound supporting evidence in its favour, theoretically and with reference to the Reserve Bank of Australia's successful practice of the same policy. The economic benefits of the policy are reflected in it having made AU$5.2 billion for the taxpayer since 1983.
- Hence, we think the Bank's currency intervention policy and practice is perfectly defendable against the criticism based on scaremongering and conventional wisdom on economic theory.
- We encourage opponents of the intervention to provide the Bank with enough breathing space to operate its currency intervention policy intended in practice. We believe the policy will ultimately prove to be a worthy addition to the monetary policy tools at the Bank's disposal.

1. Introduction

After an All Blacks season that has included a loss and a few scratchy performances, it's inevitable that criticism of the All Black selectors/coaches' policies would increase.

Within financial markets, criticism of another AB at the highest level has also been flowing freely; for Alan Bollard, the Governor of the Reserve Bank of New Zealand (the Bank), and the Bank's recent foray into currency intervention after almost a quarter century of a completely free floating exchange rate.

From our perspective here at AMP Capital Investors, it seems the criticism on the Bank's intervention falls broadly into three categories: scaremongering, sour grapes about communication and conventional wisdom on economic theory. We discuss these aspects in sections two, three, and four below.

We are also keen to put forward our thoughts on the Bank's 'leaning against the wind' currency intervention policy, rather than just discussing the issues that others have raised. That is, we believe the Bank's operation of monetary policy, including its intervention policy and practice, offers a pragmatic approach to best meeting it's objective of 'maintaining a stable level of prices' while seeking to 'avoid unnecessary instability in output, interest rates and the exchange rate.' And we think the Bank's intervention policy is likely to work out well, so long as it gets the necessary breathing space for it to work as intended over time.

Criticism based on scaremongering

You've probably all heard the various scaremongering comments on the Bank's intervention policy, starting with 'Soros will eat them for lunch, just like the Bank of England.' (Famous investor, George Soros earned an estimated $1.1 billion when he broke the Bank of England in 1992). But in fact, the Bank's intervention has a completely different context and therefore completely different economic and financial implications, than the Bank of England's intervention.

The differences can be expressed in two sentences:

- The Bank of England's intervention policy failed embarrassingly (and expensively) because it ran out of foreign currency reserves with which to buy its own pounds at a 'die in a ditch' overvalued level (the edge of its range within the European Monetary System, the precursor to the euro currency that the United Kingdom ultimately decided not to adopt).
- Conversely, with a few taps on a computer keyboard, the Bank is able to generate unlimited amounts of domestic currency that it can sell opportunistically at a time and pace of its own choosing and at levels that are very likely to prove overvalued.

Or there is always the fallback scaremongering position that the Bank is taking undue risks and it may lose tax payers' money to those well-capitalised hedge funds. Well, it might lose money (and probably has initially, as discussed in section five). But the Bank can readily absorb short-term losses with its $1 billion dollar balance sheet (which is about the order of magnitude of an average international hedge fund). And, on the minor chance that the intervention policy really worked out abysmally, the Bank has also got a hotline to Michael Cullen who would be sure to recapitalise the Bank if required (given that having your own central bank go technically insolvent is never a good look when it comes to the rating agencies). As discussed in section four, there is also a good potential monetary reward for the Bank taking currency exposure onto its balance sheet (although the pure financial aspect is a by-product of a well-run intervention policy, rather than its primary aim).

But surely, you say, the Bank's bureaucrats can't match those battle-hardened vials of pure testosterone with their PhD certificates and free options to gamble the funds of their investors, otherwise known as hedge fund managers? Once again, let's look at the facts.

The Foreign Reserves team at the Bank has around 80 years of practical experience specific to New Zealand's financial markets. And that is well-complemented by the highly-educated economics and finance graduates (including PhDs) that the Bank employs on its research and analysis side.

But if that's not convincing enough to level the playing field, consider also that the Bank has got the ultimate secret weapon available to no hedge fund: ready and legal access to the inside information from the Bank's senior management. Who knows better about the Bank's likely stance of monetary policy over the medium-term than the bank staff themselves? As discussed in

section five, knowledge of the latter is especially relevant to the Bank's medium-term time horizon on currency intervention.

Criticism based on communication

Criticisms of the Bank's communication have arguably got some validity. However, we believe this aspect has been emphasised too strongly.

To paraphrase some typical quotes from market participants who have criticised the Bank's communication, please adopt an irate tone and state the following: 'That naughty bunch of bureaucrats; they didn't tick off each box on the intervention checklist before selling. It's just not fair!!'

Just what did they expect? Perhaps something like the following broadcast over Radio New Zealand: 'This is a public service announcement from the RBNZ. We advise that each of the conditions for currency intervention have now been unambiguously met, so please stand by for intervention beginning tomorrow.' That would be a public service for sure, but it might well limit the surprise element and uncertainty that the Bank is trying to generate among short-term currency speculators, as discussed in section five.

To be fair, however, we have some sympathy with the market sentiment regarding communication. We previously thought the Bank would be unlikely to intervene ever, because once it was obvious that the four 'intervention conditions'[1] had been met, the currency would already be well on its way to 'fair value' before the Bank had to fire a shot. Nevertheless, the change in tact keeps life interesting and it shows that the pendulum within the Bank is firmly on the swing from bureaucratic to pragmatic - a swing we favour.

Criticism based on economic theory:

Moving on again, we now consider the class of criticism that definitely raises some valid considerations: economic theory. However, to flash our cards up front, we don't necessarily believe that these points deliver a 'knock-out blow' to the Bank's intervention policy and practice.

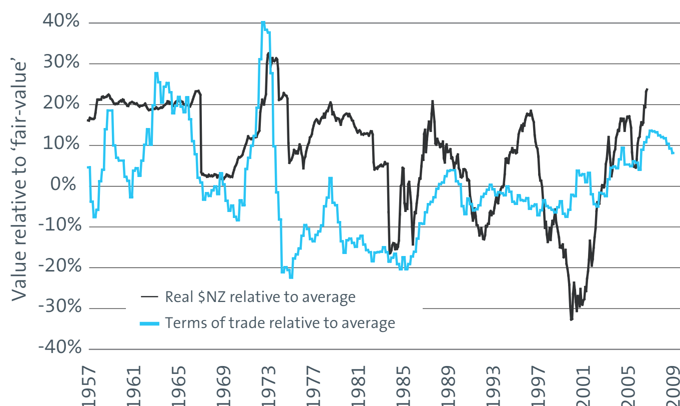
One criticism based in economic theory is that the Bank is working against itself (and its inflation-fighting credibility) when intervening in the currency, because relieving exchange pressure in the current environment undermines one channel of downward pressure on inflation. Well, yes, in theory. But by far the only aspect that monetary economists emphatically agree on is that, in the translation of monetary theory into practice, 'the lags are long and variable'. That agreement presumably extends to the imprecision of the various channels of monetary policy transmission (for example, interest rates, exchange rates, credit channel and wealth effect). As a pertinent example, take the ill-fated Monetary Conditions Index from the late 1990s. Fine in theory, but a failure in practice, because the exchange rate transmission relative to the interest rate transmission didn't live up to its theoretical promise in either magnitude or timing.

But please don't take the above as an incitement to abandon theory; rather just a reminder to keep its limitations in mind when it is applied in practice. Certainly, if/when a theoretical model with sufficient precision in practice is developed, then let's talk seriously about exactly how the Bank might be working against itself. In the meantime, it's no big sacrifice to give the Bank the benefit of the doubt that it might be able, without undermining it's ultimate objective of price stability, to deliver slightly more interest rate pressure (to help dampen the seemingly irrepressible domestic economy), and slightly less exchange rate pressure (to help avoid potential instability in the 80% of export businesses at higher risk because their world prices have not kept pace with recent currency appreciation).

Another line of criticism founded in economic theory is that intervention is pointless if the current exchange rate is justified by fundamentals and one could argue that case at present. However, that simply shifts the debate to whether those fundamental themselves are likely to be persistent and/or sustainable. For example, New Zealand's dairy prices are certainly elevated for good fundamental reasons, essentially high global demand and constrained global supply. But there are equally good reasons to expect that the situation will mean-revert over time. For example, a traditional supply response to elevated prices should be expected over time. Other pertinent possibilities are a breaking of the Australian drought and/or a cutback in US ethanol subsidies to reflect the almost zero 'green contribution' that policy is actually producing. Similarly, New Zealand's interest rates are very attractive to Japanese investors at present. But that gap is likely to close and potentially quite rapidly. The Bank is already running restrictive monetary policy at close to a peak in official interest rates, while the Bank of Japan has a long way to go just to achieve 'normal' interest rates (somewhere around at least 3%, given likely nominal gross domestic product once the Japanese economy sustainably emerges from zero inflation).

To illustrate how one perspective of fundamentals can change and mean-revert quite quickly, figure 1 shows the variability of New Zealand's terms of trade (export prices divided by import prices) over an extended period of history. Also note that the real exchange rate for New Zealand (MSCI basket basis) seems high at present relative to current and even prospective terms of trade (the latter from Bank projections). Of course, this is only a single perspective on fundamentals and a full assessment on whether the current exchange rate is unjustified would require a more in-depth analysis (and only hindsight would ultimately show whether the assessment was correct).

Figure 1: New Zealand terms of trade and the real value of the currency (MSCI-weighted)



Source: Bloomberg data, RBNZ projections and AMP Capital calculations

1. The exchange rate must be exceptionally high or low; the exchange rate must be unjustified by economic fundamentals; intervention must be consistent with the policy objective; and conditions in markets must be opportune and allow intervention a reasonable chance of success.

Finally, there will always be criticism from economic purists seeking to ensure that the necessary evil of 'public sector interference' is kept to a bare minimum. This policing is commendable; history shows that pricing within unhindered free markets has generally been an efficient mechanism of resource allocation, so why mess with a winning formula?

In this particular case however, it is worthwhile bearing in mind the context. That is, the Bank already operates a monopoly on currency issuance and therefore the New Zealand money supply. And it effectively uses the Official Cash Rate (OCR) as an intervention mechanism within the interest rate market to direct its stance of monetary policy toward the ultimate goal of price stability. So, given the Bank is already intervening via the OCR, is it really risking another spell of purgatory for trying to supplement that mechanism with other tools and/or channels of monetary policy, such as projections within Monetary Policy Statements, sabre-rattling on reserve requirements, discussion on housing taxation and currency intervention? If those additions to the 'blunt' OCR make for a more efficient outcome in terms of price stability with less economic instability, then isn't that so much the better?

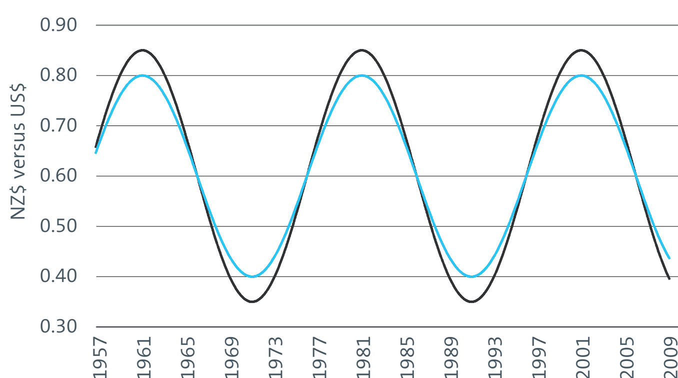
And, so long as the Bank is not trying to alter the longer-term trends of the currency, then any distortions of genuine economic /financial decisions for the medium-term should be negligible. However, that may not be the case for the decisions of short-term financial speculators, which is something we return to below.

What do we think about currency intervention?

So far we've spent a long time deflecting what we think are the main aspects of criticism of the Bank's intervention and we hope that has been informative in its own right. However, we now turn to the final, and positive, part of our opus: what we believe to be the Bank's policy and intention on currency intervention, why we think it makes sense and why we think it will work.

The Bank's policy is best characterised as 'leaning against the wind' at the extremes of the currency cycle (or likely extremes to be exact; these are only clear in hindsight, rather than at the time when the environment is subject to some uncertainty). Figure 2 shows the 'leaning against the wind' policy stylistically for the New Zealand dollar against the US dollar. Hence, the black line shows where the currency cycle might have gone in the absence of intervention by the Bank and the blue line shows the actual path followed by the currency because of the Bank's 'leaning against the wind' to shave off a few cents around the peaks and troughs.

Figure 2: Stylised path of the exchange rate with and without intervention at extremes



Source: AMP Capital Investors (New Zealand) Limited

2. A recent example is Grauwe and Grimaldi (2006), "Exchange rate puzzles: A tale of switching attractors", European Economic Review 50 (2006) 1–33.

The immediate question arising from figure 2 may be: why bother if it's only likely to make a few cents difference? Because it's a few cents at a critical level. It's often that final few cents that makes the difference between an exporter making low or no profit (not nice, but bearable) and making a business-busting outright loss. And if the business does fold, a 'hysteresis effect' occurs - there will be an element of permanent damage that doesn't automatically and/or instantly reverse when economic and financial conditions revert back to their previous or long-term sustainable states. Hysteresis is actually a physics term from electromagnetism, but a better physical analogy is sandbagging a flooding river: holding back just the last few centimeters of water prevents the longer-term and/or permanent damage of a subsequent clean-up or required relocation. The river, of course, will always eventually recede to its usual level, but it's the level it was allowed to get to at its extremes beyond a particular threshold that is the key determinant of the damage it can potentially cause.

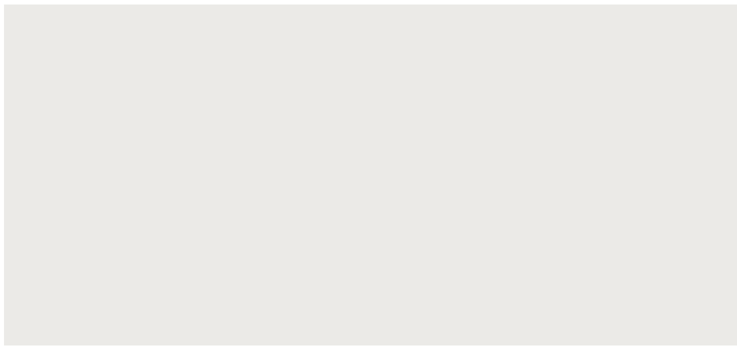
As an important aside, note that an appropriate currency hedging/insurance policy is also a critical component in ensuring the viability of an export business. That is, extreme currency levels from the perspective of the financial viability of individual businesses might not be identical to the levels the Bank considers extreme when considering currency intervention. And the time taken for intervention to influence short-term currency trends might be longer than an individual business can bear.

Returning to the Bank's intervention policy and goals. Can it actually shave a few cents off at the extremes? Well, firstly consider the theory. Academic literature abounds with examples of how rational decision-makers with short time horizons (speculators playing markets for a quick buck) can reinforce trends or create 'bubbles'[2]. Hence, short-circuiting that source of currency movement by adding an element of uncertainty into the mix (as the Bank's intervention policy seeks to do) should in principle help moderate the extremes that would otherwise arise from trend-following behaviour.

Then consider the practical evidence. Obviously, it's too early to tell if the Bank's first few interventions will be 'successful' in their own right, in terms of the currency remaining lower than their respective intervention levels. Indeed, the currency has already moved higher, resulting in a mark-to-market loss of approximately $20 to $30 million according to our estimates. And given currency movements are essentially random in the short-term, the chances of a move to even higher extremes are pretty much 50:50.

However, the key issue is not whether each event of intervention will be 'successful', but whether the Bank's intervention policy is likely to be successful over time. One can never be supremely confident in the future success of any policy enacted in an uncertain environment, but the practical evidence is certainly on Bank's side. That is, a look across the Tasman provides an ideal case study in the Reserve Bank of Australia's (RBA's) long-standing practice of intervention since the Australian dollar was floated in 1983.

The RBA's intervention policy is very similar to that of the Bank, which is not surprising because the two teams do talk frequently about central banking matters (once the obligatory discussions on rugby are finished, of course). While a direct assessment of the economic benefits of the RBA's intervention policy would be impossible and subjective, an indirect way of testing whether an intervention policy has been economically successful is to test whether it made money over time. Just to be clear, the intention



of the intervention policy is to obtain positive economic benefits (arising from reduced currency instability), but Milton Friedman made the original observation that if interventions make money on average, then they are probably achieving their intended policy goals. That full discussion is contained in an RBA paper by Becker and Sinclair (2004), as are the tests of the profitability of the RBA's intervention record[3].

To summarise, the RBA made AU$5.2 billion over the 21 years of intervention to 2004, including a profit over each of the three broad currency cycles within that period. For those interested in technical details, the profits account for the effect of interest rate differentials. And just in case you think the RBA is simply giving itself a big tick after a 'once-over-lightly' review, rest assured that earlier and different studies on the RBA intervention policy have also given a 'thumbs up' to its 'leaning against the wind' intervention policy.

3. Becker and Sinclair (2004), "Profitability of Reserve Bank foreign exchange operations: twenty years after the float", Reserve Bank of Australia Research Discussion Paper RDP2004-06.

Conclusion:

Trying something new, different and perhaps a bit unorthodox will always bring the armchair critics out of the woodwork. Any of the All Black coaches/selectors that listen to talk-back radio or read the newspaper will certainly agree. But in the latter case, a policy designed to deliver the best team in the world for a crucial set of forthcoming matches doesn't necessarily mean that every lead-up game needs to be won convincingly.

Similarly, the start of a new era in the practical operation of monetary policy will always attract its share of critics. But the same could be said for inflation targeting when it was first introduced in New Zealand in 1989 and it seems to have caught on as conventional policy around the world since.

So why not give the Bank's new currency intervention policy the benefit of the doubt for now? It's got good supporting evidence in its favour already. And if the public and politicians provide the Bank with enough breathing space to operate its intervention policy as it intends, then we'll see in time whether it was a positive development. For the record, we expect it will prove to be just that.

Dr Leo Krippner
Head of Investment Strategy
AMP Capital Investors

Contact us

If you would like to know more about how AMP Capital can help you, please visit www.ampcapital.co.nz, or contact one of the following:

Wellington office
AMP Capital Investors (New Zealand) Limited
Level 14, HP Tower
171 Featherston Street
PO Box 3764 Wellington
Telephone: +64 4 494 2200

Auckland office
AMP Capital Investors (New Zealand) Limited
Level 26, PricewaterhouseCoopers Tower
188 Quay Street
PO Box 5346 Auckland
Telephone: +64 9 307 8325

or visit **www.ampcapital.co.nz**

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