THE TREASURY
Kaitohutohu Kaupapa Rawa

Treasury Report: Operationalising a More Active Foreign Exchange Intervention Policy

Date:	2 March 2004	**Treasury Priority:**	High
Security Level:	BUDGET SENSITIVE	**Report No:**	T2004/322

Action Sought

	Action Sought	Deadline
Minister of Finance	a) **Read** and **note** the content of this report prior to meeting with the Reserve Bank and the Treasury scheduled for 9.30am 4 March 2004. b) **Discuss** next steps with the Reserve Bank and Treasury officials the next steps.	9.30am 4 March 2004
Associate Minister of Finance (Hon Trevor Mallard)	Read	
Associate Minister of Finance (Hon David Cunliffe)	Read	

Enclosure: **No**

2 March 2004 MC-1-0-2

Treasury Report: Operationalising a More Active Foreign Exchange Intervention Policy

Executive Summary

At the meeting to discuss the Reserve Bank's proposal to increase the level of the Crown's insurance holdings of foreign exchange reserves on 12 February 2004, you requested additional information on a more active exchange rate intervention policy. This report and the accompanying letter of 1 March 2004 from the Reserve Bank Governor respond to that request.

Overall, we agree with the Reserve Bank's assessment that having available an intervention capacity that operates over the medium term, and is structured appropriately, has the potential to be welfare enhancing.

However, the net gains are likely to be small and not without risk. In particular the Crown may from time to time face large unrealised losses on open foreign exchange positions, potentially for extended periods.

When the exchange rate moves in accordance with fundamental it provides an efficient price signal for the allocation of resources in the economy and acts as a channel through which the economy adjusts to domestic and external shocks.

However, at the extreme peaks and troughs of its cycles the exchange rate may move further than is desirable to help stabilise the economy and may be a source of resource misallocation over the longer term, although the extent to which this has been the case is difficult to quantify. In these circumstances intervention may provide welfare gains if it can reduce the extent to which the exchange rate moves away from fundamentals.

For potential remedies such as foreign exchange rate intervention to be welfare enhancing the impacts needs to outweigh the costs of undertaking such action.

The international evidence on whether foreign exchange rate intervention can successfully moderate excessive movements in the exchange rate is mixed.

As the Reserve Bank notes, intervention is likely to be most effective when it is operating in a direction consistent with expected changes in interest rates and when there is evidence that the exchange rate has become disconnected from economic fundamentals. The latter circumstances can be difficult to pick, but they are more likely to occur at the extremes of the exchange rate cycle. Moreover, even in these cases, the lasting impact of exchange intervention is likely to be small.

Potential costs arise if intervention leads to conflict with other policies (e.g. monetary or fiscal policy), it induces poor decision making by businesses and households or the shifting of exchange rate variability moves volatility onto other economic variables, such as interest rates or output, and forces adjustment onto parts of the economy where it may be more difficult.

Sound institutional structures are important to the effectiveness of policy. Effectiveness is likely to be enhanced by a policy that is consistent with the price stability objectives of the Reserve Bank Act and the Policy Targets Agreement.

Structures that mean the policy is seen to operate over the medium term, is time consistent (operates consistently at the top and bottom of the exchange rate cycle) and is non-politicised are also likely to be important.

These considerations, along with issues of transparency and accountability, point to the Reserve Bank being the best entity to carry out any ongoing intervention.

A medium-term intervention strategy could be made operational under either s16 (Reserve Bank initiated) or s17 (Minister of Finance initiated) of the Reserve Bank Act.

On balance we consider s16 is the preferable route for building a durable medium-term intervention capacity. Ongoing intervention decisions would be at the discretion of the Governor. This would require a change to the Reserve Bank Funding Agreement that would need to be ratified by Parliament. Cross-parliament support for a change in intervention strategy would be desirable to ensure its durability and credibility.

To implement a more active medium-term intervention capacity, the Reserve Bank has estimated that additional financial resources of [ ] would be required, along with up to $0.6 to $1.0 billion of additional capital.

This would be in addition to the $1.9 billion the Reserve Bank is seeking to increase the level of Crown's foreign exchange insurance reserves. The Treasury is comfortable with this increase.

We intend to work with the Reserve Bank further to determine the precise magnitude and timing of the increase in resources required.

Together these would add materially to gross sovereign issued debt relative to DEFU forecasts, although the government's net debt position would be impacted to a much lesser extent. It should not rule out a downward adjustment to the long-term debt objective although it is likely to impact on the timing of when it would be achieved and it may require a change to the short term intentions.

The broad options are summarised in attachment one.

A decision to increase insurance reserves can be taken independent of a decision to intervene in the foreign exchange market in a wider set of circumstances than the current conditions of "extreme disorder".

However, it is possible to use the opportunity created by a decision to increase insurance reserves to signal the ongoing change to intervention strategy. For public policy and accountability reasons this should be done as transparently as possible.

Further detailed work would be needed to set up the precise structures for a more active intervention policy as well as to decide on the best funding option.

Assuming the Reserve Bank is to be the entity to undertake intervention on a medium-term basis, the MOU will need to be updated, the appropriate level of transparency decided upon, the impact on Bank's equity and funding arrangements will need to be finalised and funding arrangements between NZDMO and the Reserve Bank agreed. The best timing and mechanisms to raise the additional resources would also need to be worked through.

Recommended Action

It is recommended that you

a) **Read** and **note** the content of this report prior to meeting with the Reserve Bank and the Treasury scheduled for 9.30am 4 March 2004.

b) **Discuss** next steps with Reserve Bank and Treasury officials.

Mark Blackmore
Manager, Macroeconomic Policy
for Secretary to the Treasury

Hon Dr Michael Cullen
Minister of Finance

Treasury Report: **Operationalising a More Active Foreign Exchange Intervention Policy**

Purpose of Report

1. On 10 February 2004, we provided you with a report entitled 'Options to Influence the Exchange Rate and/or Assist Exporters' (TR2004/154). On 12 February you requested additional information on the use of direct intervention in the foreign exchange market as a tool for moderating exchange rate cycles.

2. This report discusses the options available to you; the effectiveness of intervening in the foreign exchange market, the institutional arrangements through which such intervention can be operationalised and the fiscal/funding implications of such a change.

Introduction

3. The exchange rate is an important price signal in the economy, contributing to the allocation of resources and moving in response to changes in external and domestic demand to help the economy and a country's external accounts to adjust to shocks. However, the exchange rate, like other asset prices, may move through cycles that are larger or persist for longer than economic fundamentals warrant. If this is a feature of the business cycle that creates uncertainty, the long-term planning ability of firms will be diminished. Moreover, the price signals being transmitted to the economy may lead to a less than optimal allocation of resources between the tradeables and non-tradeables sectors, potentially impacting on trend growth.

4. In practice, it is difficult to determine when an exchange rate has moved past the level that economic fundamentals would justify. Historically, New Zealand has experienced relatively large real exchange rate cycles, but it is uncertain what impact such cycles have had on New Zealand's economic performance. Exports as a share of GDP have risen and trend growth has improved, suggesting at one level that exporters have displayed increased resilience to exchange rate movements through adoption of a wide range of business strategies including better hedging and trade diversion. However, it may still be the case that at the extremes, the exchange rate cycles experienced have been welfare reducing.

5. Even if the exchange rate cycle has been welfare reducing, for there to be a net benefit from trying to reduce the size of the cycle, the gain from potential remedies such as foreign exchange rate intervention needs to outweigh the costs of undertaking such action. For there to be gains, the impact on the exchange rate needs to be lasting and in excess of the costs of funding the intervention. Potential costs arise if intervention leads to conflict with other policies (e.g. monetary or fiscal policy), or if it induces poor decision making by businesses and households (firms don't think they need to manage exchange rate risk), or the shifting of exchange rate variability forces adjustment or volatility onto other parts of the economy where it may be more difficult to cope with.

Intervention – what is it and is it effective?

6. Foreign exchange intervention refers to the authorities buying or selling their own currency in the foreign exchange market, with the purpose of influencing its exchange value. Where the authorities buy or sell their own currency without that intention, it generally would not be regarded as intervention. Non-intervention transactions tend to be undertaken in a low key, and passive, manner. For example, the purchases of foreign exchange made by the

Crown/Reserve Bank in the early 1990s for the purpose of repaying foreign currency debt were undertaken this way and were not regarded as intervention.

7. The authorities can intervene actively to attempt to influence the exchange rate in a floating exchange rate environment in a number of different ways. These include:

- through the size of transactions, that is, by dealing in large amounts, including at times when market trading is thin (although the effects may wane once market trading volumes rebuild, possibly as the result of the intervention drawing more money into the market);

- by intervening in a manner that changes market participants' assessments of the underlying balance of importer/exporter and investor supply/demand for the local currency. The effectiveness of the intervention will depend on whether the changed assessments are maintained once the authorities withdraw from the market; or

- as a result of intervention being taken as a signal of a possible future change in interest rate settings e.g. the selling of one's currency to depreciate it being taken as a signal of future interest rate cuts.

8. Using this definition, the New Zealand authorities have not intervened actively in the foreign exchange market since the dollar was floated in 1985. This reflects the agreed policy of only intervening in the event of extreme market disorder i.e. when financial markets threaten to deteriorate from disorderly to dysfunctional. This differs somewhat with the practice of other developed country governments and central banks, most of which have intervened at some point during the last 10 to 15 years, albeit on a less frequent basis but in larger amounts than had been the case previously.

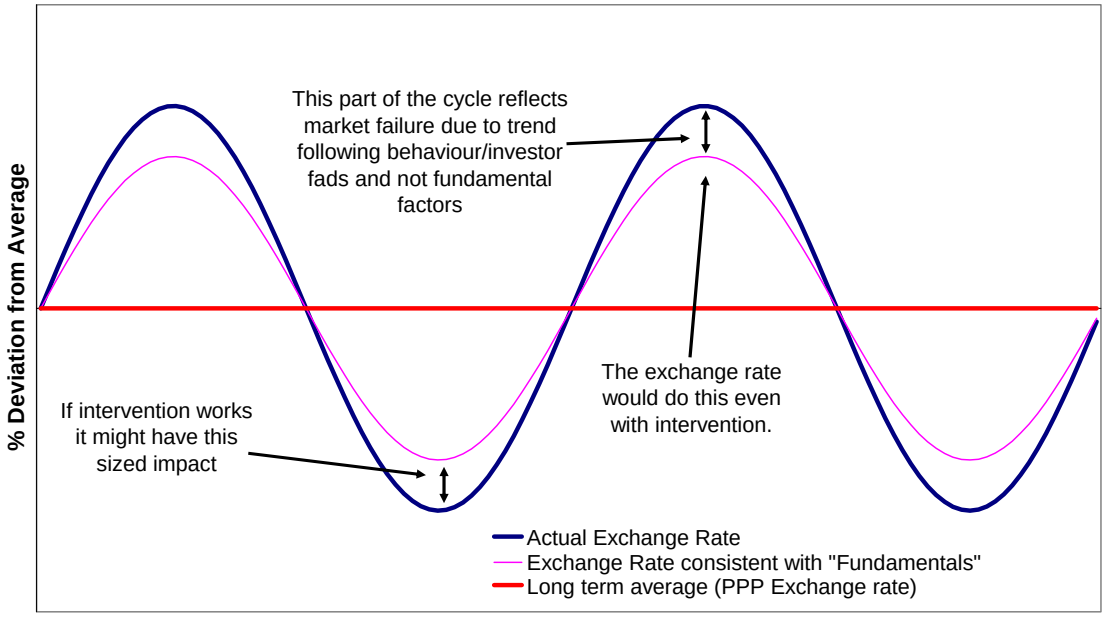
9. Of the above channels of influence, the third is thought to provide the best chance of intervention being effective. That is, intervention is likely to be most effective if it is pushing the exchange rate in the direction implied by fundamentals such as interest rates and growth. In these circumstances, the exchange rate effect derives as much from the expected change in interest rates as from the intervention per se. Interest rate and currency markets generally are thought to be closely integrated, and the scope to influence them independently of each other is limited. If the intervention authority is credible and consistent, publicly announced intervention can send an important signal regarding future monetary policy settings.

10. There may be other instances where intervention is possible. In particular, when the exchange rate is driven by market dynamics at odds with fundamentals. For example, if investors are thought to be investing in the NZ dollar in a herd-like manner, without due regard for the likely future direction of interest rates, then an intervention in the exchange market might cause those investors, and the market more generally, to reassess. This intervention requires the authority to come to a judgement of when such conditions exist.

11. In both of these cases, these circumstances are more likely than not to arise at the extremes of the exchange rate cycle.

12. Intervention taking place at the extremes of the cycle would not change the basic nature of the exchange rate cycle (Figure one below presents this in stylised form). To the extent that the exchange rate overshoots or undershoots at its peaks and troughs, addressing this disconnect between the exchange rate and economic fundamentals should not materially affect the role the exchange rate plays as price signal for resource allocation or in helping smooth out fluctuations in demand.

Figure 1: Stylised Real Exchange Rate Cycle



13. Note, however, that while the chart above illustrates a very symmetrical and even exchange rate cycle, this is not always the case. In particular, it is very difficult to pick the turning points of the exchange rate cycle. As the Reserve Bank Governor points out in his 1 March 2004 letter, identifying when the exchange rate has moved beyond its relevant economic fundamentals is difficult. Intervening against the economic fundamentals may prove both ineffective and costly in both economic and financial terms.

14. Overall, intervention may have a lasting impact on the exchange rate in some limited circumstances. These are likely to be at the extremes of the exchange rate cycle when non-fundamental drivers are more likely to be at work. Even if intervention is successful, evidence suggests that the impact is likely to be small.

Options

15. You have a number of options to consider with respect to reserves policy and foreign exchange intervention. These range from building up the foreign reserves required to combat market dysfunction, which would not significantly alter current policy settings, to providing the Bank with the capacity to intervene more actively in the foreign exchange market, whether on your directive or of its own initiative.

16. The Reserve Bank has already discussed with you its request for a NZ$1.9 billion increase in the level of foreign exchange reserves that it holds for insurance purposes i.e. the reserves required to inject liquidity into the market in the event of extreme disorder. This would bring the level of its insurance reserves up to NZ$7 billion[1]. Standard practice would be for the NZDMO to raise these additional funds through either issuing foreign currency debt, or by borrowing in New Zealand dollars and hedging any foreign exchange exposure to the Crown. On balance, Treasury is comfortable with the Reserve Bank's request, which is detailed in a letter sent to you by the Governor of the Reserve Bank on 9 February 2004.

[1] This NZ$7 billion includes New Zealand's IMF reserve's quota of NZ$0.9 billion and NZDMO foreign exchange holdings of NZ$0.5 billion.

17. Providing the Reserve Bank with the capacity to intervene more actively in the foreign exchange market for monetary policy reasons or to correct temporary misalignments in the exchange rate would be a separate policy decision. If the Reserve Bank were to intervene more actively for such reasons, it would require a further increase in reserves. This would be to ensure that when the Reserve Bank is holding a New Zealand dollar position at the bottom of the exchange rate cycle as a result of its intervention strategy, the Crown's foreign exchange reserves did not drop below the NZ$7 billion equivalent estimated as desirable for insurance purposes.

18. Providing the Bank with the capacity to intervene more actively in the foreign exchange market is the option that would represent the most significant change in New Zealand's macroeconomic framework and is the focus of much of the rest of the paper. Active intervention in the foreign exchange market would create a foreign exchange exposure for the Crown that opens and closes throughout the exchange rate cycle. This could see the Crown carrying foreign exchange losses or gains for reasonably lengthy periods of time. Potentially, intervention would also have implications for the operation of monetary policy and could require a change to the funding agreement between the Bank and the Government.

Issues to be considered in a move to a more active intervention policy

19. A move to a more active intervention policy than has been the case since 1985 would bring with it a number of economic, fiscal and political risks. These need to be assessed against the potential (but uncertain) benefits of such a policy. Some of the risks could be reduced by setting up appropriate institutional structures around how the intervention is carried out. However, other risks such as the increased volatility of the Crown's balance sheet would remain. The communication strategy accompanying any change in policy would therefore be important.

Institutional Arrangements

20. To maximise the effectiveness and minimise the costs of any change in intervention policy, the institutional structure around the entities involved would be extremely important. These arrangements are also discussed in the Governor's 1 March 2004 letter to you. Intervention transactions can be carried out through two main channels – via the Reserve Bank or the NZDMO.

21. Effectiveness is likely to be enhanced by a policy that is consistent with the price stability objectives of the Reserve Bank Act and the Policy Targets Agreement. Structures that mean the policy is seen to operate over the medium term, is time consistent (operates consistently at the top and bottom of the exchange rate cycle), is non-politicised, and that doesn't lead to the premature closing out of open foreign exchange positions (and hence the realising of losses) are also likely to be important.

22. These considerations point to the Reserve Bank being the best entity to carry out any ongoing intervention. The remainder of this section look at the how this would work in practice. Our previous report (T2004/154 refers) set out the powers provided by the Reserve Bank Act to intervene in the foreign exchange market. In essence:

    - Section 16 of the Act allows the Bank to deal in the foreign exchange market for the purpose of fulfilling its obligations under the Act.

    - Section 17 provides for the Minister of Finance, by notice in writing, to direct the Bank to deal in the foreign exchange market for the purpose of influencing the exchange rate.

23. To be most effective, an active intervention strategy should have a medium-term focus. In practice, this means that, on average, intervention should take place at both the top and bottom of the cycle. Changing an intervention strategy, or worse, stopping after only a short elapsed time, both maximises the financial risks of the policy and minimises its likelihood of being effective. For example, if the intervention authority was forced to exit a position prematurely due to a strategy change, significant losses could be incurred and the commitment of the intervention authority to future actions in the market may be undermined. For these reasons and to maintain good public policy practices, it would be desirable that any material change to intervention policy has cross party parliamentary support.

24. A medium-term intervention strategy can be made operational under either s16 or s17 of the Reserve Bank Act. On balance, we consider s16 is the preferable route for building a durable medium-term intervention capacity. Moreover, this would not rule out intervening under s17 at some point in the future.

25. Intervention under s16 of the Reserve Bank Act would reduce the potential for conflicting objectives and help to minimise some of the financial and reputational risks discussed below. The Reserve Bank is also likely to have greater ownership of the policy and it would become more "business as usual". Adopting an arms length approach to intervention would mean that intervention is likely to be fairly symmetrical over the exchange rate cycle. It would also be consistent with the governance approaches taken elsewhere in the public and private sector.

26. A standing Ministerial directive to intervene could also be issued under s17. However, intervention under s17 could be perceived as encroaching on the operational independence of the Reserve Bank and/or politicising intervention decisions. The latter has downsides for the Minister of Finance, the Government and the Reserve Bank. It invites the question of whether the Reserve Bank agrees with the intervention and also increases the risk of policy conflicts if the Minister's instruction to intervene ran counter to monetary policy objectives. The potential for conflict may be minimised if the standing directive to intervene was made on the Governor's recommendation in circumstances where it was not inconsistent with the PTA.

27. It would be desirable if a change in the Bank's intervention policy was supported by a Memorandum of Understanding between you and the Governor. This Memorandum should ensure that the objectives of any new intervention policy are clearly understood and provide an appropriate mandate and financial delegation to the Governor to support this.

Funding Implications

28. As per your request, the Reserve Bank has also provided you with a proposal regarding how a more active intervention strategy could be operationalised alongside an increase in insurance reserves. There are three parts to the Reserve Bank's response that have funding implications:

    - the $1.9 billion increase in foreign reserves for insurance purposes (as part of the proposal to lift total insurance reserves to $7 billion);
    - up to [ ] to support a medium term intervention capacity;
    - equity of $0.6 billion to $1.0 billion to cover the possibility of losses stemming from intervention.

29. The proposed intervention policy would see the Reserve Bank taking net open foreign exchange positions [ ] at the top and bottom of the exchange rate cycles. This exposes the Bank (or whoever is intervening) to the risk of unrealised and realised foreign

exchange losses.

30. In order to operationalise a more active intervention strategy under section 16 of the Reserve Bank Act, the Bank estimates that it would also require an increase in its equity of $0.6 billion to $1.0 billion to protect against the possibility that losses lead to a position of negative equity. The Reserve Bank would prefer this capital injection to be in the form of government bonds. This has the advantage of delaying any gross debt impact until such time as losses are incurred and the bonds are sold to meet the losses.

31. Providing an explicit assurance (i.e. a guarantee or indemnity) to the Bank that the Crown would fund any realised losses if called upon is another means of protecting the Bank's equity position. This option also delays any gross debt impact and could provide you with an opportunity to review the agreed intervention policy and, where desirable, make adjustments to your understanding with the Governor. In addition, a requirement to seek additional capital could, at the margin, provide the Bank with a stronger incentive to minimise the extent of risks they take when intervening.

32. A guarantee or indemnity potentially reduces the Bank's financial independence compared to the Bank's preferred approach of a capital injection. Greater financial independence may be desirable for reasons of policy credibility; in particular, losses could undermine political and public support for intervention, placing the Government under pressure to reverse its commitment to underwrite losses and its support for the policy.

33. This point notwithstanding, the Crown would ultimately bear the cost of any financial losses made as a result of a more active intervention strategy, regardless of how it was operationalised. The impact on the Crown balance sheet is discussed below.

34. Precisely when this funding would be required depends on how any change to intervention policy is implemented and under what mandate. This in turn would influence how the NZDMO would raise the required funding and pass this to the Reserve Bank.

35. Initially intervention could be funded from the Crown's cash balance, although the timing and amount of intervention is important as this cash has already been factored into the existing debt programme. The December Economic and Fiscal Update forecasts the cash balance to be around $800 million at 30 June 2004, so any utilisation of the cash balance would need to be refinanced and supplemented with seasonal treasury bill issuance in the short-term. Once the extent and timing of intervention becomes clearer, we would consider the implications for the domestic debt programme, including options around a longer-term funding solution.

36. Any increase in the domestic debt programme naturally implies additional debt issuance. The extent of the impact that the extra supply is likely to have on the Government's debt servicing costs is unclear. In recent years there has been limited reaction to changes in bond supply, with both positive and negative revisions being overshadowed by international factors. In this case, however, the policy changes being contemplated would see the market assess the implications for investment in New Zealand Government securities and this may influence future demand and therefore the yields at which we issue domestic debt.

37. An increase in resources (to cover both insurance and intervention purposes) to a peak of around [ ] of the Crown's current total financial asset portfolio. Given the potential size of the reserves and the risk they present to the Crown balance sheet, together with the change in intervention strategy, it may be prudent to explore with the Board the governance and monitoring structures around reserves.

Funding Agreement

38. The current Funding Agreement, signed in May 2000, provides for expenditure on foreign exchange dealings, as defined in s16 of the Reserve Bank Act, to be included in the Bank's expenses. It also provides for material changes in the Bank's business to be verified in the Funding Agreement.

39. Changes to the Bank's intervention policy will therefore require as revised Funding Agreement. The Reserve Bank Act (s.161) stipulates that changes to this Agreement must be tabled in Parliament (within 12 sitting days after agreement is entered into) and ratified by a resolution of Parliament. It also states that no funding agreement shall be effective unless it is ratified by a resolution of the House. This process emphasises the desirability of cross-party support for a change in intervention policy.

40. Providing a mechanism for the return of profits to the Crown is also important. Revisions to the Funding Agreement provide an opportunity for you to formalise an agreement with the Governor.

Appropriations

41. The Public Finance Act (section 47) provides authority for the Minister of Finance to raise loans. Section 23 of the Act provides for these funds to be invested without further appropriation. This means that the borrowing is not included in the Appropriation Bill, but it is disclosed in the Estimates. In practice the NZDMO, acting under delegation, funds the government's activities, including potentially intervention, from a variety of borrowing programmes. NZDMO would need to seek your approval if the domestic debt programme required expansion as a result of intervention activity.

Financial and Reputational Risks

42. A more active intervention strategy would entail both financial and reputational risks. The financial risks stem from the possibility that the exchange rate could move through an intervention threshold resulting in losses until the exchange rate returns to a level below that threshold that is big enough to cover the interest costs of the investment. In terms of credibility, interventions that are perceived to have "failed" either in terms of their impact on the exchange rate or in terms of cost, even if only in the short run, could lead to criticism of the central bank and the government or see market participant actively take positions against the authorities.

43. However, some of the risks around intervention cannot be eliminated. Any intervention strategy would create unavoidable financial risk for the Crown. Institutional structures cannot reduce this risk. Simply put, this risk is that the New Zealand Dollar/US Dollar exchange rate (NZD/USD) does not revert to its average level fast enough for the foreign exchange gain from NZD depreciation to outweigh the holding cost of borrowing in NZD (at say the OCR of 5.25%) to invest in USD assets (at around the Fed funds rate of 1%). If this happened, the Reserve Bank would realise losses from intervention (unless it subsequently departed from its proposed trading strategy). Prior to the point of realising losses, there are likely to be much larger unrealised losses if the NZD continues to appreciate in the early stages of intervention.

44. Bringing this back to the present, given the considerable uncertainty around whether the USD has completed the down leg of its cycle, a further perhaps material rise in the NZD/USD cross rate cannot be ruled out. If the latter were to eventuate, intervention at today's level could see unrealised losses appear relatively quickly.

45. Much of the standard discussion around intervention assumes a set of stylised facts regarding the regularity of exchange rate cycles. However, such exchange rate cycles are

not guaranteed. A major shock or reassessment of economic prospects for one of the major economies could cause a one-off level shift in the exchange rate that may result in the Crown holding significant exchange rate gains or losses for a lengthy period of time. The decision as to whether to continue to hold these gains or losses would rest with the intervention authority and would depend on its assessment as to whether the exchange rate move is likely to be sustained or not. Restricting the objectives of intervention to aiming to dampen the extremes of the tops and bottoms of the exchange rate cycles helps minimise the times when such circumstances arise.

46. While the financial outcome of intervention should be secondary to the economic benefits of intervention, there is likely to be some correlation between the effectiveness of intervention and its financial outcome. In other words, if intervention proved to be highly effective, the NZD would rapidly depreciate (enabling open positions to be closed out and profits locked in). However, if the NZD continued to appreciate for some time in the face of intervention, substantial losses could be incurred (and the markets would conclude that intervention had little effect).

47. If intervention is effective, it is likely to be financially rewarding for the Crown. However, to be profitable, the intervention authority needs to be making medium-term foreign currency investment and divestment decisions. At no point in time are profits assured as judgement is required in assessing whether the exchange rate is near the top or bottom of the cycle and the regularity of exchange rate cycles is not guaranteed. Survey evidence suggests that central banks do not consider profitability to be a motivation in their intervention decisions. This suggests that profitability should be thought of as a by-product rather than an objective of intervention.

48. New Zealand's macroeconomic settings, of which exchange rate policy forms an important part, are highly regarded for the robustness and clarity of their institutional objectives, as well as the broad-based support that these objectives have acquired. These characteristics are seen as particularly important given New Zealand's high level of external indebtedness and our consequent vulnerability to swings in market sentiment.[2]

49. To maintain confidence in New Zealand's policy frameworks any change in intervention strategy would need to be perceived as credible, transparent and enduring. It would also need to be explained carefully to maintain the benefits of policy consistency and predictability and to ensure that expectations are well managed - for example to ensure there is not a view that foreign exchange intervention will substantially change the exchange rate cycle.

50. New Zealand's macroeconomic frameworks are strengthened by the degree of cross party consensus that underpins them. If future Governments are not committed to the extra funds required over the next three to four years to fund the Bank's intervention strategy over the long term, then the effectiveness of any actions taken by the Reserve Bank over the near term may be diluted.

Fiscal and Crown Balance Sheet Implications

51. The options discussed above imply a funding requirement of around [ ] – an initial NZ$1.9 billion increase in reserves [ ]. This would add to gross sovereign issued debt, although the precise impact depends on when the Reserve Bank calls on the resources, the detail of the transaction between the NZDMO and the Reserve Bank,

[2] In its latest assessment of New Zealand, Standard and Poor's stated that although it *'does not view the private sector as a substantial direct contingent risk to the sovereign, the sector's reliance on external savings subjects the economy to liquidity risk, and leaves the government little room to deviate from policies that could affect market sentiment on New Zealand.'*

and the size of the capital injection. However, the government's net debt position would be largely unchanged.

52. The increase in gross debt would reduce the extent that the Government is likely to over-achieve on its long-term debt objective of 30% of GDP, on average, over the economic cycle (assuming the DEFU forecasts as the base). The potential increases in gross debt would need to be taken into account in the review of the Government's debt objectives currently underway. It does not remove the possibility of looking to lower or reconfigure the long term debt objective but it could influence the specifics (time horizon, gross or net debt target etc). In addition, the increase would likely have implications for the short term fiscal intentions of having a stated bias for lowering rather than raising debt to GDP.

53. The Crown currently has no net foreign exposure in its core balance sheet, where core covers the assets and liabilities of government departments including the Reserve Bank but not Crown Financial Institutions (CFI). The CFI diversification process has, however, explicitly created a foreign exchange exposure in the Crown's wider balance sheet (these are summarised in table one). The Crown also has considerable exposure to other valuation movements as well.

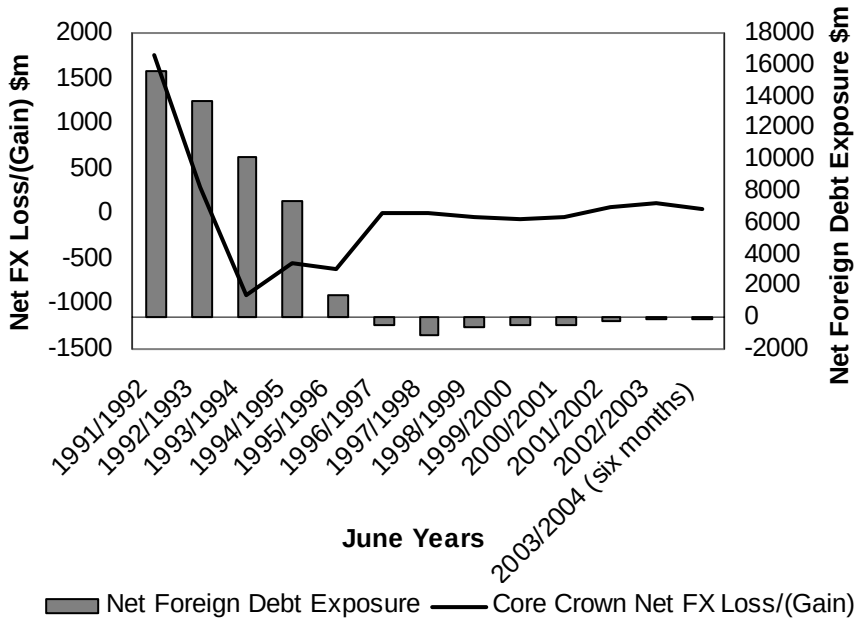
Table 1: CFI Overseas Exposure

	Fund size	**target OE**	**target OE $**	**Hedge ratio**	**FX exposure**
	30/9/03 $m	**%**	**$m**	**%**	**$m**
NZSF	2,402	60%	1,441	60%	576
EQC	4,356	30%	1,307	0%	1,307
GSF	3,224	43%	1,370	75%	343
NPF	2,110	28%	591	75%	148
ACC	4,854	26%	1,262	40%	757
Total	16,946		5,971		3,131

54. If a more active intervention strategy was undertaken, it would represent a change to the existing policy with respect to the core Crown. This would increase the volatility of the Crown's balance sheet and operating balance. [ ].

55. From 1991 until 1993, a loss of around $2 billion was incurred against an exposure of $15 billion net foreign-currency debt. For the three-year period from 1994 until 1996, gains were in excess of $2 billion. The move to zero net foreign-currency debt occurred in 1996/1997. Since then, whole-of-Crown impacts have been relatively small, as reflected in the following chart.

Figure 2: Net foreign exchange movements in the Crown's balance sheet



56. [ ]

57. These flows would show up in the operating balance.

58. While it is a specific decision about currency intervention that would introduce potential volatility to the operating balance and net debt, this volatility would be stripped out in the calculation of OBERAC. As a current example, it was a specific policy choice to allow various diversifications of investment portfolios in GSF, Earthquake Commission, and the NZS Fund, but volatility due to the valuation changes resulting from this policy choice are stripped out in the calculation of OBERAC.

Operational and Co-ordination Issues

59. Further detailed work would be needed to set up the precise structures for a more active intervention policy as well as to decide on the best funding option. Assuming the Reserve Bank is to be the entity to undertake intervention on a medium-term basis, the MOU would need to be updated, the appropriate level of transparency decided upon, the impact on Bank's equity and funding arrangements would need to be finalised and funding arrangements between NZDMO and the Reserve Bank agreed. This would include some consideration of the practical management of changes in the composition and size of the portfolio across the cycle and operating arrangements for re-financing existing stocks of foreign currency reserves. The best timing and mechanisms to raise the additional resources would also need to be worked through.

Attachment One – Foreign Reserves Options

Intervention policy	**Proposed policy response**	**Comment**	**Recommended process**	**Agree** yes/no
1) ***Increase foreign reserves and maintain existing intervention policy*** as provided in the 1990 MoU: intervention only in the event of extreme market disorder. Intervention occurs on the recommendation of the Governor and with the authorisation of the Minister of Finance.	Increase foreign reserves by $1.9 billion over four years. These reserves would be hedged against exchange rate risk. Total reserves available in the event of a crisis would be around $7 billion (including the IMF tranche and NZDMO holdings).	No change to existing policy framework required. Least risky and lowest cost means to build foreign reserves. Little or no impact on the exchange rate. Increase capacity to provide liquidity to the market in a crisis. Not intended for other intervention purposes.	**Invite** the Reserve Bank, in consultation with the Treasury to prepare a report for Cabinet noting your intention to increase reserves. Following the Cabinet process, sign a new agreement with the Governor on the level of reserves to be held for crises intervention purposes.	
2) ***Increase foreign reserves, agree a revised intervention policy with the Bank and the additional resources required to support the policy.*** Under a revised intervention policy the Bank could have the capacity and discretion (under s.16 of the Reserve Bank Act) to intervene in a broader range of circumstances eg. where the exchange rate "overshoots" or where it is desirable to support the implementation of monetary policy through interest rates.	Increase foreign reserves by $1.9 billion. Provide the Bank with additional resources [ ] and a capital injection (of $0.6 – $1.0 billion) to provide the Bank with the capacity to absorb losses. Revise the Funding Agreement you have with the Bank and have that ratified by Parliament. Ratification of the Funding Agreement is the main constraint on how quickly this can be implemented. There is discretion over the phasing of funding. Agree new MoU with Governor	Intervention would be at the discretion of the Governor. Maximises consistency between the price stability objectives of is the Act, the PTA, and the objectives of intervention. It also ensures the Governor's accountability for these objectives is achieved within a transparent and consistent framework. Changes made with the support of Parliament may provide a more enduring and credible policy framework. You may therefore wish to seek cross party support for this policy. Exposes the Crown to increased financial risk that needs to be monitored and managed.	**Invite** the Reserve Bank, in consultation with the Treasury, to prepare a report for Cabinet noting your intention to: a) increase foreign reserves; b) revise the existing intervention policy to include a wider range of circumstances; c) provide the Reserve Bank with additional resources to support this policy; and d) include details of the consultation process you intend to follow to achieve this.	

Intervention policy	Proposed policy response	Comment	Recommended process	Agree yes/no
3) ***Increase the level of reserves under a s.17 notice to intervene;*** *and subsequently* ***agree a revised intervention policy with the Bank and the additional resources required, as in 2) above.***	Direct the Reserve Bank to intervene. To intervene effectively the Reserve Bank has estimated it would require around [ ]. This amount could be made available at short notice. Should you wish to proceed with this approach we suggest that you bring forward the funding of foreign reserves held a crisis purposes, as these reserves are relatively cheap when the exchange rate is high. Following this initial intervention you may wish to follow a process that provides the Bank with an ongoing capacity to intervene as in 2) above.	Ensures intervention occurs. The direction could provide the Governor with an appropriate degree of discretion about when to intervene to minimise the potential for conflict with the monetary policy objectives of the Bank. One-off policy action, unless followed up with additional resources to enable the Bank to intervene in the future. The Crown, through NZDMO, could execute the transaction but would risk undermining the Governor's independence in the operation of monetary policy. This could create uncertainty about his ability to control inflation and confuse accountability for inflation outcomes. It would be preferable if the Bank undertook the intervention as provided for under section 17 of the Reserve Bank Act. Leaves scope to build an intervention capacity as under 2) above.	**Invite** the Bank, in consultation with the Treasury, to prepare a report for Cabinet noting your intention to raise the level of reserves and to direct the Bank to intervene. Following the Cabinet process issue a written directive under s.17 of the Reserve Bank Act and sign a new agreement with the Governor on the level of reserves.	
			Agree that the Cabinet paper note your intention to provide the Reserve Bank with additional resources to provide for future intervention to be conducted at the Governor's discretion (ie under s.16) and the consultation process you intend to follow to achieve this.	