The Treasury

Treasury Report T2022/2562 – Interest on settlement cash balances

April 2023

TE TAI ŌHANGA
THE TREASURY

Treasury Report: Interest on settlement cash balances

Date:	06/12/2022	**Report No:**	T2022/2562
		File Number:	

Action sought

	Action sought	Deadline
Minister of Finance (Hon Grant Robertson)	Indicate if you would like to seek further advice from the Bank	None

Contact for telephone discussion (if required)

Name	Position	Telephone	1st Contact
Neil Kidd	Principal Advisor, Macroeconomic and Fiscal Policy	[39] [35]	✓
Renee Philip	Manager, Macroeconomic and Fiscal Policy		

Minister's Office actions (if required)

Return the signed report to Treasury.

Note any feedback on the quality of the report	

Enclosure: No

Treasury Report: Interest on settlement cash balances

Executive Summary

The Reserve Bank of New Zealand (the Bank) currently pays the OCR on settlement cash balances held at the Bank. This is currently a key feature of the implementation of monetary policy: it creates a price floor below which the interbank rate should not fall. Paying interest on settlement balances hasn't always been the case amongst central banks but this is now a common way of operating monetary policy.

Nonetheless, there is a question as to whether it is necessary to pay interest on <u>all</u> settlement cash balances, or whether a zero-interest tier could be introduced. Introduction of a zero-interest settlement cash tier would effectively require banks to provide zero interest loans to the Crown. We have not fully assessed the efficiency and fairness implications of this change. If you are keen to proceed, we would recommend you seek the advice of the Bank, in particular to determine what impact it would have on the Bank's objectives. This report provides some initial analysis to help inform whether you wish to explore this issue further by requesting advice from the Bank.

Recommended Action

We recommend that you:

a **Indicate** if you would like to seek further advice from the Bank on the proposal to not pay interest on some proportion of settlement cash balances held with the Reserve Bank

Yes / No

Renee Philip
Manager

Hon Grant Robertson
Minister of Finance

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Analysis

Paying interest at the OCR on settlement cash balances is an important part of monetary policy implementation

1. Settlement cash is deposits held at the Reserve Bank by registered banks and accounts related to other settlement systems e.g. foreign exchange and securities clearing (from here on referred to collectively as 'banks'). The banks use settlement cash to settle transactions with the Crown, the Reserve Bank and each other. The amount of settlement cash in the exchange settlement account system (ESAS) is determined by the Reserve Bank: an individual bank's holdings might rise or fall but in aggregate the banks will hold the settlement cash that the Reserve Bank issues – it is a closed system.[1] The Reserve Bank can inject or withdraw settlement cash from the system through a range of market operations.

2. Settlement balances were relatively low and stable before the introduction of large-scale asset purchases (LSAP), averaging around $7.5 billion in the decade up to 2020. With the introduction of LSAP, the Bank issued a large amount of settlement cash in order to purchase government bonds and local government funding agency bonds. The Funding for Lending Programme further increased settlement cash balances. As a result, settlement balances have risen, peaking at over $50 billion and averaging approximately $49 billion in September 2022. As the Bank sells down its LSAP portfolio over the next 5 years, these settlement cash balances should reduce significantly.

3. Remuneration of settlement cash holdings is a decision for the Bank and paying the OCR on settlement cash balances is an important part of the implementation of monetary policy. Remunerating settlement cash at the OCR creates a floor below which short-term interbank interest rates will not fall. Generally, no bank would lend to another bank at a lower interest rate than they could get from the Reserve Bank. This model is particularly important if the supply of settlement cash is significantly above what is required by the banks as part of their operations: with a large quantity of settlement cash in the system due to LSAP, and in the absence of a price floor created by paying interest on settlement cash, the interbank rate would be driven towards zero through basic supply and demand dynamics.

But it may not be necessary to pay the OCR on <u>all</u> settlement cash balances

4. There are several examples of central banks creating tiers at which settlement cash is remunerated at different rates than the headline policy rate. What is important is that the OCR is paid on the marginal dollar held by banks – so that there is no incentive to lend below this rate. For example, several central banks (Denmark, Japan, Sweden, European Central Bank) that have introduced a negative policy rate, chose to remunerate an initial tier of settlement cash balances at zero whilst paying the negative policy rate on settlement cash above this initial tier. In this instance that was to the benefit of the account holding banks (at zero, the interest paid on an initial tier was *above* the policy rate).[2] Therefore, whilst it may add complexity to monetary policy implementation, there is a question about whether a zero-interest initial tier could be introduced.

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[1] With the exception that it can be withdrawn as currency or held in the Crown Settlement Account (CSA). Given that currency doesn't pay interest and the Crown controls the CSA, this doesn't change the analysis in this report.
[2] This is done out of concern for bank profitability when policy rates turn negative, which could undermine the stimulus that negative rates are attempting to provide.

Paying interest on settlement cash balances is the reason why LSAPs have been fiscally costly

5. From a whole-of-Crown perspective, the Reserve Bank's LSAP have withdrawn fixed-rate New Zealand Government Bonds from the market and replaced them with floating-rate settlement cash balances.[3] As a result, the Crown has more floating rate liabilities and has been more exposed than it would have been to rising interest costs. Our best estimate of the expected direct fiscal loss from LSAP is approximately $10.5 billion,[4] noting that we expect this has been partially offset by the estimated fiscal benefits of LSAP through stabilising the NZGB market and providing economic stimulus at a time of heightened uncertainty.

6. It is difficult to trace the ultimate beneficiary of the Crown's expected $10.5 billion higher interest payments. We expect that it is some mixture of non-resident investors and financial institutions that would have been holding low interest fixed rate bonds if the Reserve Bank had not purchased them. However, the ultimate beneficiary depends on how those investors shifted their asset and liability portfolios more broadly in response to LSAP.

7. Losses resulting from greater exposure to rising interest costs is a common story amongst countries that have undertaken LSAP, given the inflationary pressures that emerged following the pandemic. As a result, there is now greater questioning, from commentators and academia, of whether these fiscal costs could be avoided by not paying interest on some initial tier of settlement cash balances and whether this would be justified.

Introduction of a zero-interest settlement cash tier

8. Paying zero interest on an initial tier of settlement cash balances would shift some of the cost of funding Crown expenditure on to the banking sector, which would be required to provide zero interest loans to the Crown. If the Bank were intending to hold its LSAP bond portfolio to maturity this would have the potential to avoid most of the LSAP losses not already incurred under the indemnity - depending on the size of the initial tier of non-remunerated settlement cash. However, over the next 5 years the Bank intends to sell its LSAP bond holdings back to NZDM and settlement cash balances are expected to decrease significantly, which will reduce the benefits to the Crown of this change.

9. Nonetheless, we estimate that paying zero interest on half of all settlement cash balances would save the Crown approximately $3.3 billion over the forecast period to 2027, based on the forthcoming HYEFU settlement cash forecasts and the market pricing for the OCR on 24 November 2022, and assuming introduction at the start of 2023/24. We would need to engage with the Bank to understand what a reasonable initial tier might be.[5]

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[3] A small number of the bonds were Local Government Funding Agency bonds – in this case, the Crown has both a fixed rate asset and a floating rate liability – with similar implications for the Crown's exposure to rising interest rates.

[4] $10.5 billion is the total expected increase in interest payments as a direct result of LSAP. This is different from the value of the indemnity ($9.2 billion as at October 2022). The indemnity value is the marked to market loss on the value of the bonds. The indemnity value ($9.2bn) should roughly equal the present value of the future higher interest payments i.e. the $10.5bn discounted into today's value.

[29]

10. In previous discussions with the Bank, they have indicated that they would consider introducing a zero-interest tier if the OCR were negative. In particular, if this happened alongside an LSAP, then the Bank would suffer losses (as they currently have) if interest rates rose but would not make a similar gain were interest rates to fall. Gains would be limited as the interest the Bank would be paying on settlement cash would not fall below zero – which is the mechanism by which they would realise a gain. In this scenario, the Bank would be bringing (somewhat) one-sided risk on to the Crown balance sheet.

11. One possibility to consider would be whether the Bank could announce a zero-interest initial tier whether the OCR is positive or negative. As we expect the OCR to be positive much more often than negative, we would expect the Crown to gain from this change. Without this intervention, we think it is likely that the Bank would have a zero-interest tier only when the OCR is negative – at a cost to the Crown.

Issues to be worked through

Equivalent to taxation

12. Requiring registered banks to provide zero interest loans to the government is effectively a tax on the banks. We have not assessed the efficiency or fairness implications of this change. Whilst the banks would bear the immediate cost of the policy change, we would want to provide further advice on the extent to which they would be able to pass this on to their customers. If the aim of this policy is to raise revenue, in particular from the banking sector, then there would be alternative mechanisms to consider. As a revenue raising measure, it would give rise to a relatively volatile revenue stream – the savings would vary with the OCR and the scale of settlement cash balances.

Monetary policy implementation

13. As set out above, paying interest on reserves is part of the implementation of monetary policy: it ensures that the interbank rate trades close to the intended policy rate (OCR). Whilst we tentatively consider that it is possible to change the way reserves are remunerated without undermining the Bank's objectives, we would want the Bank to provide more thorough advice on the implications for the implementation of monetary policy and any impact on financial stability.

Reputational issues

14. This change could have implications for perceptions of the Reserve Bank's independence. In addition, opting not to pay interest on settlement cash could give the impression that the Crown is engaging in monetary financing or intends to in future. As long as issuance of settlement cash remains under the control of the Reserve Bank, this would be less of an issue, although market perceptions that the government intends to engage in monetary financing could impact on inflation expectations. It is difficult to assess how significant a risk this is.

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Next Steps

16. If you want to pursue this option, we recommend you request advice from the Bank on this issue, in particular what the proposed change would mean for the Bank's statutory objectives and existing contractual arrangements with banks. If necessary, you can request this advice under Section 202 of the Reserve Bank Act, which states that, on request by the Minister, the Bank must provide advice to the Minister on any matter that is connected with the functions of the Bank. The Treasury would also provide you with further advice on this option, including who we expect would bear the cost of any policy change, and any alternatives. As part of this process, legal advice would also be sought, as necessary.

17. If you wish to proceed, we can draft the request for policy advice from the Bank. For example, you could ask the Bank:
    - To what extent has the monetary policy response to COVID (LSAP, FLP, forward guidance) supported bank profitability?
    - What forms of exemption tiering at positive interest rates would have the least impact on the transmission of monetary policy?
    - What approaches to exemption tiering on settlement cash is the Bank most likely to consider if the OCR goes below zero?