RBNZ Report: Remuneration of settlement cash balances

To	Hon Grant Robertson Minister of Finance	**Date**	02/02/2023
Authorised by	Karen Silk Assistant Governor	**Report no**	6001
Prepared by	Michael Callaghan, Kate Poskitt	**Security**	In confidence

Action Sought

Action sought	**Deadline**
Note this report, for discussion in regular meeting with RBNZ Governor.	07/02/2023

Reserve Bank Contact for Telephone Discussion (if required)

Name	**Position**	**Telephone**
Vanessa Rayner	Director, Financial Markets Department	OIA s9(2)(a)

Actions for the Minister's Office Staff

Return signed copy of report. Coordinate with the RBNZ any follow up required, including meeting with the Minister to discuss this report.

Note any feedback on the quality of the report.	

RBNZ Report: Remuneration of settlement cash balances

Executive summary

1. The purpose of the RBNZ's Monetary Policy Implementation (MPI) framework is to ensure that short-term market interest rates trade near the Official Cash Rate (OCR), and to manage liquidity in the banking system to facilitate payments and settlement flows.
2. The RBNZ changed its MPI framework from a 'corridor' to a 'floor' system during the COVID crisis, as the level of settlement cash greatly increased from the implementation of additional monetary policy (AMP) tools. This framework is in line with international best practice, as most advanced economy central banks with large balance sheets remunerate all settlement balances at or near their respective policy rates.
3. The floor system - where all settlement cash balances are remunerated at the OCR, supported by various facilities for a broader set of market counterparties - is the most efficient way to ensure short-term market interest rates continue to trade near the OCR and that the intended stance of monetary policy is transmitted to the economy.
4. Historically, in New Zealand and in other jurisdictions, different interest rates have been applied to different 'tiers' of settlement balances. Tiered remuneration has been used for a monetary policy and/or financial stability objective. For example:
    - Prior to March 2020, the RBNZ remunerated settlement balances above a bank's respective 'credit tier' at a lower interest rate. This was for the MPI objective of ensuring a sufficient distribution of settlement cash across institutions. As total settlement cash balances were kept below aggregate credit tiers, essentially all balances were remunerated at the policy rate.
    - In jurisdictions where a negative policy rate has been deployed, some central banks have used a zero-interest tier. The monetary policy purpose of this is to support the pass-through of the lower policy rate to lending rates.
5. Tiering methodologies are dependent on the context in which they are deployed. In the current context, there is no monetary policy implementation rationale to introduce tiers. Doing so would undermine effective monetary policy implementation and could negatively impact the perception of the RBNZ's operational independence. It would be unprecedented internationally for an advanced economy central bank to introduce tiers for reasons unrelated to their own objectives.
6. Introducing tiers could create other problems, by:
    - reducing the future efficacy of AMP tools, as market participants would be reluctant to run high settlement cash balances;
    - discouraging membership of the Exchange Settlement Account System (ESAS) by creating an effective tax on balances, potentially reducing financial system competition and efficiency.
7. Setting aside these risks, if a *feasible* portion of settlement cash was to be non-remunerated, it is likely to only generate modest and variable cost savings for the Crown.

Analysis

The primary way that the RBNZ anchors short-term interest rates in New Zealand is by remunerating all settlement cash balances at the Official Cash Rate.

8. Banks and other financial institutions hold deposit accounts with the RBNZ (within the Exchange Settlement Account System (ESAS)) and use these accounts to settle interbank payments. Market participants who do not have an ESAS account can still access the RBNZ's facilities and operations, which allows a broader range of market participants to access facilities and operations priced near the OCR. The RBNZ determines the total settlement cash level.

9. Remunerating all settlement cash balances at the OCR is the primary way that the RBNZ anchors short-term interest rates, as ESAS account holders have little or no incentive to lend settlement cash in the market at rates lower than the OCR. This creates a floor under short-term market interest rates.

10. The current floor system best ensures that the RBNZ's MPI and payment system objectives are met.[1] The framework is robust to the use of additional monetary policy tools. It is operationally simple, as the focus is on maintaining settlement cash above a sufficient level rather than tightly managing changes in settlement cash levels. Under the floor system, as long as there is a sufficient supply of settlement cash to prevent upward pressure on short-term interest rates, variations in settlement cash balance levels have negligible impact on short-term market interest rates or the payments system.[2]

The RBNZ has recently committed to continuing to remunerate all settlement cash at the OCR. Not remunerating a portion of settlement cash would create challenges for monetary policy implementation.

11. In theory, the RBNZ can retain control over short-term market rates even if a portion of settlement cash balances are not remunerated – so long as marginal balances are remunerated at the OCR. But in practice it is difficult to estimate how much settlement cash could be unremunerated without compromising monetary policy implementation. There is a greater risk of short-term market interest rates becoming unanchored if a large and/or variable amount of settlement cash is not remunerated at the OCR.

12. One option is to implement a 'required reserves' regime, where financial institutions are required to hold a certain level of settlement cash balances to be exempted from remuneration, thereby preventing participants from taking actions to lower their settlement cash balances substantially to avoid the penalty interest rate.

13. Historically, there is some international precedence for not remunerating a *small* static portion of settlement cash defined as required reserves.[3] The purpose of using these required reserves was for key central banking objectives: financial stability, payment system functioning or monetary policy implementation. Central banks have generally moved away from reserve requirements and towards remunerating all settlement balances near the policy rate. This has been driven by the inefficiency of and tax implicit in non-remuneration, as well as a focus on prices (i.e., interest rates) rather than quantities.

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[1] Before the COVID crisis, the RBNZ implemented monetary policy via a 'corridor' system whereby settlement cash was routinely injected and withdrawn in order to keep market interest rates trading near the OCR. This system include a tiered ESAS remuneration framework. This was done for an MPI purpose of ensuring the adequate distribution of cash in the banking system. ESAS account holders earned the OCR on settlement cash balances up to a prescribed 'tier'. Any balance held above an ESAS account holder's respective tier was remunerated at a lower level (typically one percentage point under the OCR). Because total settlement cash was kept below aggregate credit tiers and participants were able to trade with each other, all settlement cash balances were still effectively remunerated at the OCR. In the COVID crisis, higher settlement cash as a result of RBNZ operations meant that credit tiers had to be removed otherwise the penalty rate would have become the marginal interest rate and short-term market rates would have traded well below the level of the OCR.

[2] https://www.rbnz.govt.nz/hub/publications/speech/2022/speech2022-09-07

[3] Note, settlement cash is often referred to as 'reserves' in other countries

14. Implementing a required reserves regime would effectively mean forcing financial institutions to hold more settlement cash than they need for payment and settlement needs so that they can be taxed on it. Such a regime would face significant challenges and represent a radical departure from our current monetary policy and financial stability frameworks and is therefore not considered as feasible or desirable.

15. Another option is to not remunerate a small and static portion of settlement cash – a 'zero-interest tier'. This would still have implications for the RBNZ's monetary policy choices and implementation, as well as unintended consequences for the wider financial system and significant operational complexity. It would also be counter to our public communications about how this framework will operate as the level of settlement cash declines.

Globally, negative policy rates have sometimes been accompanied by exemption tiering for monetary policy purposes. In New Zealand, a decision on whether to accompany a negative OCR with exemption tiering would be made by MPC at the time.

16. Negative interest rate policy (NIRP) has become part of the monetary policy toolkit globally, due to the decline over time in neutral interest rates and prevalence of sudden crises in recent decades. Although preparation was made for NIRP in New Zealand during the COVID crisis, RBNZ has never operated a negative OCR and expects the OCR to be in positive territory in normal times.

17. Globally, exemption tiering (where a portion of settlement cash receives a zero-interest rate rather than being charged the negative policy rate) has been used alongside NIRP in some jurisdictions, but not in others.[4] Exemption tiering with a negative policy rate has an explicit monetary policy purpose: to partially mitigate the effect of the zero-lower bound on household deposit rates, so that monetary policy transmits effectively. There is not a monetary policy or payment systems objective for exemption tiering in a positive policy rate environment.

18. It is also much easier to implement a zero-interest tier in a negative OCR environment than a positive one, because there are no adverse incentives for banks to offload settlement cash balances. In a positive OCR environment this carries a greater risk of undermining our monetary policy implementation objectives and unintended financial system consequences.

19. The RBNZ and the MPC have not committed to whether exemption tiering would be used alongside a negative OCR. This decision would be made at the time, based on an assessment against the Monetary Policy Principles, conditional on economic and financial circumstances.

There is currently no monetary policy or payments system reasons to introduce a zero-interest tier in a positive interest rate environment. This would undermine effective monetary policy implementation and operational independence.

20. Introduction of a zero-interest tier in a positive interest rate environment amounts to forcing financial institutions to provide interest-free loans to the government. This may create a perception that RBNZ could deploy suboptimal monetary policy for fiscal purposes, which could harm our ability to achieve our objectives. For example, RBNZ may be perceived as preferring quantitative easing (and wishing to delay quantitative tightening) so it can maximise the fiscal benefit of unremunerated settlement cash. This would draw into question operational independence.

21. Having a zero-interest tier may diminish the efficacy of certain monetary policy tools in the future, as some of these tools create additional settlement cash balances. It would also distort incentives for ESAS account holders, who could seek to offload cash balances to the point that balances were below their zero-interest tier. For example,

[4] For example, Sweden's Riksbank had a negative policy rate between 2015 and 2020 without exemption tiering.

eligible banks may terminate their FLP loans to reduce their settlement cash balances, which could put downward pressure on short-term interest rates.

22. Over the past year, RBNZ has increased limits on deposit facilities to help better anchor short-term market interest rates, which have tended to trade below the OCR. A zero-interest tier would need to be accompanied by a restriction of access to facilities to prevent these being used by ESAS participants to deposit unremunerated settlement cash. This would also impact non-ESAS financial market participants who use our facilities and undermine the changes that have been made to improve monetary policy implementation.

23. Restriction of facilities and reduced incentive to intermediate by ESAS participants may also constrain broader participation in financial markets by non-ESAS counterparties, reducing competition and liquidity across all products.[5] This would likely reduce financial system efficiency and result in higher costs faced by both wholesale and retail customers. In turn, this may result in non-ESAS participants offloading their cash in the interbank market rather than holding it in deposit accounts with ESAS account holders,[6] putting additional downward pressure on short-term market interest rates. Equally, any de facto tax may also be passed on to retail customers, resulting in lower deposit rates and higher lending rates, to recoup the lost income.

This policy would amount to a tax on a specific section of the financial sector, which RBNZ lacks public legitimacy to make decisions around and would be in tension with RBNZ's other objectives.

24. RBNZ's objectives are set in legislation and via other transparent instruments such as the MPC's Remit. Using a zero-interest tier to reduce the Crown's interest expense would amount to introducing a de facto tax on ESAS account holders. This would be a fiscally motivated policy, not supported by the RBNZ's objectives, and therefore the RBNZ would lack public legitimacy in implementing it. Ongoing internal decisions around the tiering methodology and the level of aggregate unremunerated settlement cash, as well as MPC decisions on the OCR and balance sheet policy, would all affect the level of this tax.

25. The impact of the tax on specific banks would also be dependent on how tiers were set for each ESAS accountholder. It is not clear what the appropriate methodology should be for assigning tiers for the desired policy objective. There may be unintended consequences during any period between a proposed methodology being released and its implementation, as ESAS accountholders pre-position to attempt to achieve a lower zero-interest tier.

26. It is not clear that a zero-interest tier would be an effective way to address any other financial system policy concerns, for example, bank profitability or as an attempt to recoup costs from the beneficiaries of LSAP. Instead, it is likely to result in greater financial system inefficiencies, negatively affect pricing and participation in financial markets, and may reduce innovation and competition. These outcomes would be counter to the encouragement of a competitive financial system aimed at ensuring financial efficiency and inclusion, which is specifically set out in the Financial Policy Remit.[7]

27. RBNZ is also currently conducting a review of ESAS access criteria, which may lead to a widening of access to a broader range of financial institutions. This would be for the purposes of promoting the development of an efficient, open, and flexible payments system, as well as improving the effectiveness of monetary policy implementation.[8]

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[5] A reduction in competition could impact on availability and attractiveness of pricing for financial market products. A reduction in liquidity would have the same effect but could also exacerbate both the extent and duration of market dysfunction in a crisis.
[6] If account services are withdrawn or if the pricing on these accounts is below interbank market rates.
[7] https://www.rbnz.govt.nz/about-us/responsibility-and-accountability/our-financial-policy-remit
[8] Widening of access to ESAS equivalent account holding has been a global trend, particularly for the Reserve Bank of Australia (RBA) and the Bank of England (BoE).

Introducing a de facto tax within ESAS is likely to disincentivise account holding, undermining these core policy objectives, to the detriment of New Zealand financial market development.

Any reduction in interest expense for the Crown from such a policy change would be variable, modest, and conditional on MPC decisions.

28. There is significant uncertainty around the net fiscal gain for the Crown from this de facto tax, due to uncertainty around the future level of the OCR, the level of settlement cash, and the level and distribution of tiers. There is also downside risk to revenue estimates if settlement cash balances reduce faster than expected, especially if the policy resulted in participants taking action to reduce their settlement cash balances.

29. Operating a zero-interest tier in a positive interest rate environment may compromise our ability to implement monetary policy. Our preliminary assessment is that these risks would be amplified if more than 20 percent of total settlement cash were not remunerated.

30. Treasury has provided estimates of potential fiscal savings from this policy. We view that it could be possible, but still undesirable, to implement static zero-interest tiers that aggregate to $5 billion of settlement cash balances in total. A static $5 billion tier would be consistent with a strategy of exempting 10% of settlement cash balances initially, but this proportion would increase to 20% over time as settlement cash balances decline. The total amount would likely need to be reduced beyond 2026 as settlement cash balances decline further.

31. Market pricing for the OCR over the next four years is about 4.5% as of January 2023. Based on a $5 billion zero-interest tier, we estimate savings of about $225 million per year. This central saving estimate is highly uncertain given the ultimate path of the future OCR in unknown (see table 1 for different scenarios).

Table 1: Reduction in Crown interest expense from a static $5 billion zero-interest tier

		Average OCR		
		2.5%	4.5%	6.5%
Fiscal savings	Total 2023-2027	$500 million	$900 million	$1,300 million
	Average per year	$125 million	$225 million	$325 million

Conclusion

32. In the current (and foreseeable) environment, remunerating all settlement cash balances at the OCR is the most effective way to ensure that the RBNZ meets its MPI and payment system objectives. Different forms of tiers have been used historically and in different jurisdictions, but this use has been clearly linked to a central banking objective. There is no reason aligned with the RBNZ's objectives to introduce a zero-interest tier in a positive interest rate environment.

33. This would amount to a de facto tax on ESAS accountholders, which is likely to be passed through to both wholesale and retail customers, with impacts for financial system efficiency. The RBNZ would lack public legitimacy to make a range of decisions around this policy. The policy is also likely to be in tension with the RBNZ's objectives; specifically, it may risk effective monetary policy implementation, constrain the future efficacy of monetary policy tools and draw into question our operational independence. These risks far outweigh the modest and variable reduction in interest expense for the Crown. As a result, it is the RBNZ's continued view that all settlement cash be remunerated at the OCR.

Hon Grant Robertson
Minister of Finance

Karen Silk
Assistant Governor
Reserve Bank of New Zealand

31/01/2023