

## **Excerpt from letter covering Negative Interest Rates**

Date: 29 January 2020

To: Banks

From: Andy Wood, Head of Supervision Department, Reserve Bank of New Zealand

Re: Excerpt from letter covering Negative Interest Rates

Negative Interest Rate functionality – As noted in the December banking sector DSO workshops run in Auckland and Wellington, the Supervision Department would like to confirm that banks have undertaken the necessary work to ensure their systems, processes and documentation will function in a negative interest rate environment. We are aware most banks have already been thinking about this matter. Could I please ask that you reply by Friday 28 February 2020, advising your bank's status on this matter. Where necessary, we will discuss it at the Board and CEO meeting that follow receipt of your reply.



### Bank Responses on Negative Interest Rate Functionality

We acknowledge the banks' responses to our letter of 29 January were a preliminary assessment of their readiness to implement negative interest rates.

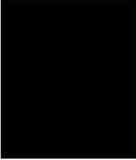
We are currently working with banks and the industry to advance this work and get a more thorough response on their operational readiness following our subsequent letter of 7 May.

Bank	Prepared	Status	Comments
██████████	Yes	Modifications required	"Our current core banking system has functionalities to deal with negative interest rate environment with certain modifications."
██████████	No	Multi-year system development planned	"In summary, extensive changes would be required involving amendments to legal documentation and marketing material, as well as significant system enhancements to existing platforms. Rewiring for negative rates would be a very substantial and costly exercise which would jeopardise timely completion of many other initiatives. Accommodation of negative rates is being built into the design of new platforms and systems as they are rolled out. Migration will start with the business bank, which is anticipated to be built out over the next two to three years, with the new strategic solution featuring negative base rate functionality."
██████████	Yes	Not yet tested	"██████████ banking system is a global system, with the ability to support negative interest rate functionality. System user testing on negative interest functionality has not yet been performed in New Zealand."
██████████	Yes	-	"All such procedures and documentation are already in place for NZD should a negative interest rate event occur here. ██████████ confirms that we are ready to accommodate a negative interest rate environment if, or when, this should this occur. "
██████████	Yes for a few products	-	Saving and transaction accounts support negative interest rates for corporate business and retail banking. Term deposits and home loans do no support negative rates.
██████████	Yes for technical systems	Preliminary Further testing project underway	"Review is underway at the moment. Preliminary testing of ██████████ primary systems indicate they have the required functionality." Note testing for negative interest rates functionality was preliminary.
██████████	Yes	High	"██████████ confirm that our processes will be able to function in a negative interest rate environment."
██████████	Yes	High	"Our system supports the negative interest rate environment. We will prepare the documentation and implement the process, as and when needed."
██████████	Yes	Preliminary	"██████████ shares the same core system as ██████████, which is already calibrated to accept negative interest rate for a number of currencies, including the NZD. Further work is currently underway."
██████████	Yes for technical systems	Further testing would be needed for retail and business banking	"A key assumption for our testing was that interest rates for retail and business banking customers would be floored at zero. Testing in relation to all derivative products was successful. Our Treasury Management System (TMS), Market Risk valuations, funds transfer pricing and balance sheet modelling applications are all able to cope with negative interest rates." Concerns noted around legal documentation, market conventions, IRD guidance, conduct issues with swaps.

**Bank Responses on Negative Interest Rate Functionality**

██████████	No	Work underway	“We do not have processes and documentation that will function in a negative interest rate environment, but we have requested our head office for the review/investigation in regards of the matter. We would have to update our system and documentation but would view that it would take some time along with a cost.”
██████████	Possibly for wholesale/treasury  No for retail	Preliminary	“Overall we are at an early stage in terms of preparedness for ensuring our systems, processes and documentation will function in a negative interest rate environment. From a retail banking perspective our core banking system (alongside associated systems, processes and documentation) will require a substantial amount of modification to accommodate negative interest rates. From a wholesale/treasury perspective, contractual arrangements are being reviewed and, where appropriate, updated as they are renewed. No formal work plan in relation to modifying internal systems or retail documentation has been established. We await RBNZ’s further engagement on the likelihood of this scenario before undertaking any substantive work.”
██████████	Yes for RBNZ facilities from mid-2020  No for core systems	System development needed	“The core systems can support the move to zero and negative interest rates. However, systems development is required to enable this. The development work is significant and will be subject to our change management and prioritisation process. We will need to undertake further work to understand the impact on our non-core systems. ██████████ does expect to be systems-able to enter transactions at the ESAS penalty rate and RBNZ’s Standing Facilities rate if these were zero or negative from mid-2020 due to remediation work being undertaken.”
██████████	Yes for wholesale	Testing required	“With regard to our wholesale customers, I can confirm that ██████████ systems are prepared for negative interest rates. Globally, in certain markets, ██████████ has already been dealing with negative interest rates. There may be a need for some local testing, but we would prepare for that accordingly.”
██████████	Yes, preliminary for retail systems	Further testing underway	“Systems are currently holding negative interest rates deals on ██████████ transactions in ██████████, so system capability and associated processes and policies are live. The core banking system used by ██████████ to hold retail deposits is capable of offering negative interest rates, which has been confirmed with some basic testing. Full testing is scheduled to commence in March 2020.”
██████████	Yes	-	“From a treasury forecasting and modelling perspective our system is able to cope with negative interest rates. We upgraded our system in 2019 to enable this. We are currently testing our treasury reporting and valuation processes, but our initial view is that these would also accommodate a negative interest rate environment. Our core retail banking system is not set up to deal with negative interest rates and to modify it would require significant development and it is unlikely that development could be undertaken within a short timeframe should there be a rapid decline in interest rates. However, we have identified a workaround that could involve the establishment of a different product or products within our core banking system.”
██████████	No	Manual adjustments and work ongoing	“Within ██████████ Markets, core fixed income and securities systems cannot currently handle trades with negative rates. A patch has been applied to the front-end booking system. There are several manual downstream processes which are then required by support functions on an ongoing basis to adjust for this issue.” A system vendor is currently testing a patch for the ██████████ securities module to handle negative rates.
██████████		Some system	Response received 26 February 2020.

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	<p>Yes for ESAS/NZ Clear</p> <p>No for financial market products and retail products</p>	<p>upgrades underway and further testing</p>	<p>“At this stage ██████ believes that two of our key systems could potentially be affected by negative interest rates: ██████ core banking system ██████ and our treasury management system ██████. ██████ core banking platform ██████ is nearing the end of its useful life and will likely need to be replaced within the next 5 years. ██████ stores all of ██████ loan and deposit account information and the interest calculations associated with them. Negative interest rates were not contemplated when ██████ was developed ██████ and further wholesale development of this system is not feasible due to the complexity of the underlying source code. Preliminary testing undertaken by the ██████ Technology team has found that ██████ is unable to accommodate negative interest rates in its calculation methodologies.</p> <p>Preliminary testing completed in ██████ by ██████ and ██████ has found that some products were able to accommodate negative interest rates (or zero interest) without any issues, whereas others were not. ██████ has undertaken further testing of ██████, and they are currently working on a software upgrade to resolve the issues discovered with regards to negative rates. ██████ expects this upgrade to be installed before the end of April 2020.</p> <p>With regards to other key systems, at this stage ██████ believes that the Bank’s general ledger ██████, settlement systems ██████ and balance sheet management system ██████ would not be impacted by negative interest rates.”</p>
	<p>No formal response – not negative loan rates</p>	<p>Enquiring about system upgrade</p>	<p>As of 21 April 2020, “the system accommodates negative deposit rates but not negative loan rates.”</p> <p>No formal response has been provided. Supervision’s conversations indicated they were seeking a quote from ██████ on what would be required to update their systems, it appears it will not be a straightforward job as their core banking system is a fusion of two ██████ platforms, creating complexity. To date it appears they have not heard back from ██████, they were under the impression that ██████ was focussing on larger clients.</p>