BANGOR BUSINESS SCHOOL

How low, for how long?

Alessio Reghezza explores the bank- and country-specific characteristics that can amplify or weaken the negative effects of NIRP on bank margins and profits.

Since the 2008 financial crisis, policymakers have been facing myriad challenges including economic stagnation, high unemployment and deflation. As an immediate monetary policy response, central banks cut interest rates aggressively through conventional accommodative monetary policy.

However, when interest rates approached zero without producing the hoped-for effects on nominal spending and inflation, many central banks implemented a wide range of unconventional monetary policies including large-scale asset purchase in the form of quantitative easing as well as policy rate forward guidance.

These policies took a step further from 2012 onwards when Denmark, the Eurozone, Hungary, Norway, Sweden, Switzerland and Japan implemented negative interest rate policy (NIRP) in order to provide further economic stimulus to constantly weak economies.

The aim of NIRP is to increase the cost of banks holding excess reserves at the central bank encouraging them to take them back on the balance sheet. This should lead to beneficial outcomes for the real economy coming mostly from a greater supply and demand for loans due to the decline in funding cost for both banks and borrowers.

> **"Competitive behaviour among banks amplifies their exposure to negative interest rates."**

Nevertheless, going below zero and pushing rates into 'uncharted' negative territory deserves serious consideration and analysis. In this regard, the 'how low for how long?' question has raised concern about the long-term effect of this policy on financial intermediaries' performance and on the economy as a whole.

NIRP has generated controversy with sceptics pointing to several factors that might affect the soundness of financial institutions and complicate the transmission from negative policy rates to higher bank lending. One factor that has been mentioned is that NIRP could compress net interest margins and, therefore, bank profits, which may erode bank capital bases via a reduction in retained earnings posing financial instability concerns. Reduced retained earnings and the subsequent erosion of bank capital might also limit the transmission of NIRP to bank lending as retained earnings are the most important source of bank's own funds. This creates a vicious circle where squeezed margins and low profits limit a bank's ability to retain earnings and build capital buffers ultimately increasing risks as well as stifling NIRP monetary transmission.

Our work at Bangor University, through a collaboration with colleagues from the University of Bath and the University of Sharjah in the United Arab Emirates, has been to investigate which bank- and country-specific characteristics can amplify or weaken the negative effects of NIRP on margins and profits.

Pros and cons

Since interest rates affect both the asset and the liability side of banks' balance sheet, the effect of NIRP on bank performance is ambiguous. A cut in interest rates into negative territory may increase bank profitability if: a) there is significant loan growth and margins are not reduced; b) banks boost fee and commission income; c) they hold a sizeable amount of fixed-income securities; d) banks also reduce non-interest expenses; or/and e) negative interest rates improve borrowers' creditworthiness reducing loan-loss provisions. On the other hand, if banks are unable to reduce deposit rates to the same extent as loan rates then margins will be compressed, and if there are limited opportunities to boost non-interest income then profits will likely fall.

The negative effect of NIRP on bank margins and profits can have profound policy implications in terms of both monetary transmission and financial stability. If NIRP results in a decline in margins and profits, this can erode bank capital bases through a reduction in retained earnings. In turn, this can further limit credit growth stifling NIRP monetary transmission.

Low profitability may also raise financial instability concerns especially as many European banks have been struggling to maintain respectable levels of profitability because of the slow economic recovery, historically high levels of non-performing loans, and a post global financial crisis and European sovereign debt crisis deleveraging phase. Banks' and depositors' 'move-into-cash' behaviour could also affect monetary transmission and financial stability. If banks hoard cash, this would undermine the effect of NIRP and, consequently, weaken the transmission mechanism. On the other hand, the risk of deposit flight will endanger financial stability by boosting liquidity risk in the banking sector.

Identifying vulnerable banks

As we've said above, bank- and country-specific characteristics can amplify or weaken the negative effects of NIRP for banks. Specifically, bank size, business model, capitalisation, assets repricing and product-line specialisation as well as the characteristics of a country's banking sector, such as the degree of competition and the prevalence of fixed/floating lending rates, can mitigate or magnify the negative consequences of NIRP.

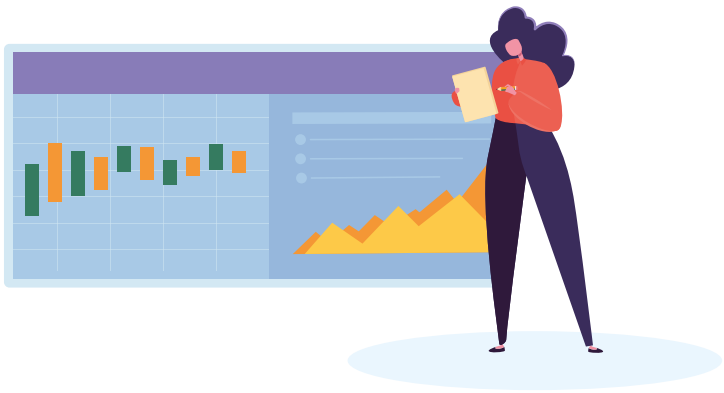
Large banks have more diversified portfolios, greater international reach and hedging expertise; therefore, they can alleviate the effect of NIRP on bank margins and profits by hedging against interest rate risk via derivatives and increasing non-interest income activities. Banks that rely on wholesale funding may benefit from NIRP in terms

of cheaper funding costs compared with those that depend mainly on retail deposits where rates are 'sticky' downward. The latter will also find it more difficult to pass negative rates on to depositors.

From a business model perspective, banks with different product-line specialisation tend to exhibit varying degrees of sensitivity to interest rate risk. Hence, banks such as real estate mortgage specialists, which have a higher proportion of long-term assets in their portfolio and face stronger maturity mismatch risk, could suffer a more considerable contraction in profitability induced by NIRP. This will depend also on the contractual details of existing loans and, in particular, their degree of interest rate indexation. Banks that hold mostly floating interest rate loans face stronger compression of net interest margins.

When banks are under capitalised, the positive effect of NIRP on bank funding cost is limited as banks face difficulties in raising capital. This may have a negative effect on banks' profitability if the decrease in loan rates dominates the reduction of bank funding cost. However, banks that hold capital in excess of that required by regulation face an opportunity cost and profitability pressure as excessive capital could be employed for profitable investment opportunities.

Competitive behaviour among banks amplifies their exposure to negative interest rates. If competition between banks is fierce,



lending rates should drop, and if deposit rates are already low, then margins will be compressed. Finally, banks operating in countries with sufficient surpluses are likely to face greater profitability pressure as they hold larger excess reserves subject to NIRP. CB

About the author

Alessio Reghezza is a lecturer in Banking at Bangor University and a consultant at the European Central Bank (Directorate General Macroprudential Policy and Financial Stability). Reghezza's interests include the effect of monetary policy and macroprudential policy on the banking sector. He has contributed to the European Central Bank Financial Stability Review by investigating the relationship between banking sector consolidation and banks' profitability and stability.

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