# Do negative interest rates in the euro area hurt bank profitability?

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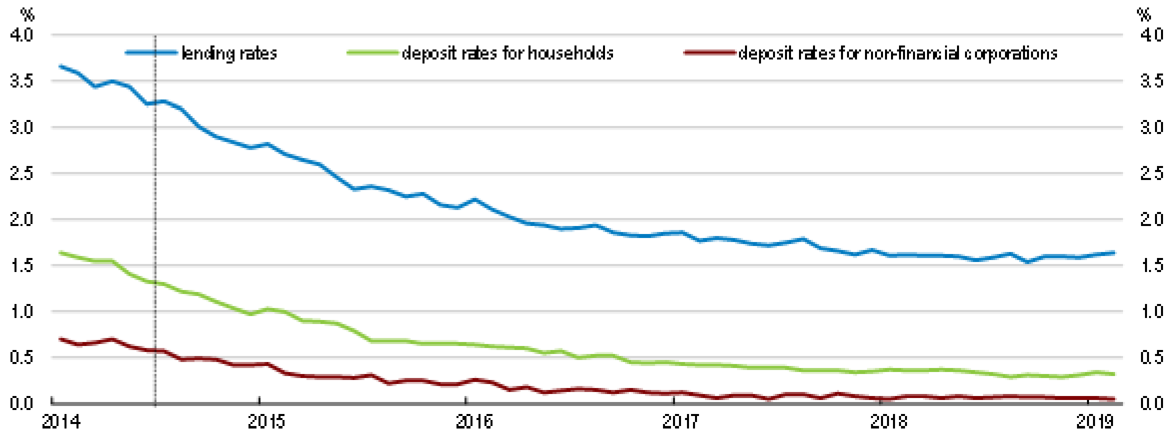
The recent decision of the European Central Bank (ECB) in September 2019 to lower the deposit rate from -0.4% to -0.5% triggered another round of criticisms in some countries about the negative impact of negative interest rates on banks' profits. This debate happened despite the fact that the ECB has introduced a two-tier system, which exempts part of the reserves held by the commercial banks from the negative deposit rate, highlighting the sensitivity of the issue. How damaging are actually negative interest rates to banks profits? We try to gauge this question in our recent paper Negative interest rates in the euro area: does it hurt banks?

**The interaction between negative interest rates and banks' profit is complex**

When policy interest rates turn negative, banks may protect their interest margins by not reducing lending rates in step with policy rates and by not reducing their deposit rates for corporate and individual depositors below zero, thus limiting depositors' incentive to switch to another bank or to cash. Indeed, the deposit rates in the euro area compressed by less than lending rates and remain well above zero (Figure 1). The deteriorating profitability, in particular over prolonged periods, could lower banks' ability to create capital from their profits and hence the ability to withstand risk and supply credit.

Figure 1. Lending rates and deposit rates of the euro area banks




*Note:* Lending rates mean MFI interest rates on new euro-denominated loans to non-financial corporations for loans between EUR 250,000 and EUR 1 million over three months and up to one year initial rate fixation. Deposit rates mean MFI interest rates on new euro-dominated deposits from euro area residents with an agreed maturity of up to one year. The vertical line denotes the time when the euro area policy rate turned negative.
*Source:* European Central Bank.

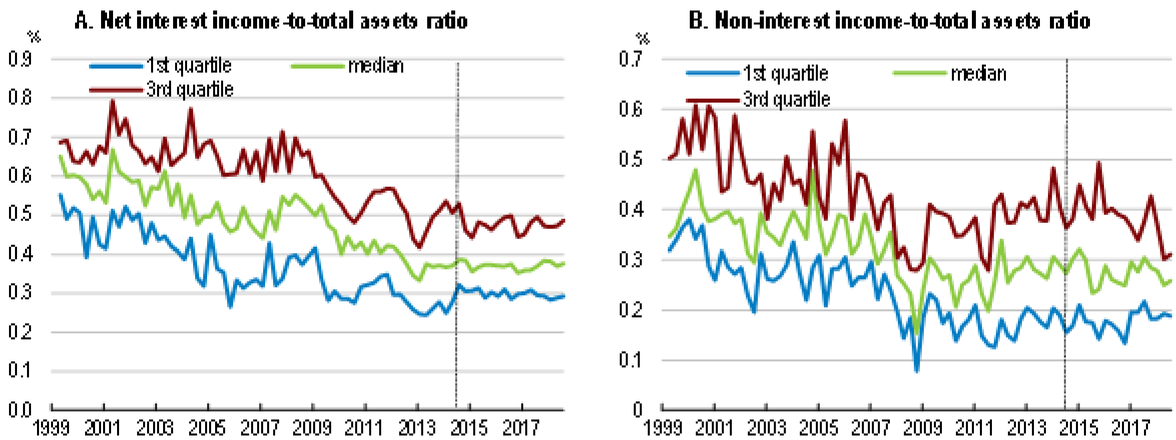
However, negative and declining policy interest rates bring additional loosening of monetary policy improving macroeconomic outlook and raising demand through revised consumers' and investors' plans. The resulting Increase in bank lending helps lift bank profitability. The overall effect is likely to differ from bank to bank, depending on their business model, their source of funding and other characteristics, such as the existing stock of non-performing loans and the state of demand for loans in bank's home market. As monetary policy rates decline more and more below zero, monetary policy could eventually reach a "reversal rate" where negative effects on bank profitability outweigh improvements from accommodative monetary policy on macroeconomic outlook and increased bank lending (Brunnermaier and Koby, 2019).

**Estimated effects of negative rates on profitability do not indicate a significant impact**

Since the various effects of negative interest rates on bank profitability are going in opposite directions, the overall effect has to be determined empirically. To do so, we use quarterly data on bank groups directly supervised by the ECB extracted from quarterly accounts reported in Bloomberg. As the data cover the period from 1999 to 2018, our study contributes to the literature by analysing separately, for the first time to our knowledge, the period of negative interbank interest rates in the euro area that started in 2015.

While the banks seem able to preserve their net interest margins in the period of negative interest rates (Figure 2, panel A), the ability of the best performing banks to generate non-interest income seems to have deteriorated in comparison to other banks (Figure 2, panel B). However, since our data covers the period when negative interest rates were in place together with large-scale asset purchases, the econometric analysis combines the effects of all monetary policy measures.

Figure 2. Main components of bank profitability




*Note:* The vertical line denotes the time when the euro area policy rate turned negative.

*Source:* OECD calculations using Bloomberg data.

The econometric analysis confirms the effect of the interest rate level on bank profitability, suggesting that decreasing interest rates lead to decreasing bank profitability, and in some specifications also suggests an additional negative effect on profitability associated with the period of negative interest rates. However, the negative effects of bank profits are not robust and tend to disappear when we control for the link between policy interest rates and expected macroeconomic conditions, such as expected real GDP growth and CPI inflation. In line with some other studies, we also find weak evidence of possible negative effects from keeping rates low for an extended period of time. However, this finding is valid only for the rate of return on total assets and not for other measures of bank profitability, such as net interest income or the provisioning needs.

Although we do not find consistent evidence of negative effects on bank profitability from the negative interest rate policy, possible negative effects may be associated with keeping rates low for an extended period of time. Measures preserving profitability at the bank level, such as cost cutting and mobilisation of the sources of non-interest income seem a prudent policy in this context.

**References:**

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