

What impact does the ECB's quantitative easing policy have on bank profitability?

Maria Demertzis and Guntram B. Wol

Executive Summary

Quantitative easing (QE) affects banks' profitability in three main ways.

1. First, as QE drives up bond prices, banks holding such bonds see their balance sheets strengthened.
2. Second, QE reduces long-term yields and thereby reduces term spreads. With this, the lending-deposit ratio spread falls, making it harder for banks to generate net interest income on new loans.
3. Last, QE improves the economic outlook, which should help banks exposed to the economy find new lending opportunities and should reduce problems with non-performing loans. The effects of QE on bank profitability are therefore not one directional. If anything, the immediate effect should be positive.

Banks themselves have been quite negative about the impact of QE on their net interest income, but they have also acknowledged its positive impact on capital gains (ECB Bank Lending Survey).

We show that lending-deposit spreads for new lending have fallen significantly. Looking at actual bank profits, net interest income has been stable. Moreover, bank profitability has increased mostly as a result of efforts to clean balance sheets of impaired assets (at least until the end of 2015). This is consistent with a reduction in non-performing loans (NPLs), particularly in countries where NPL levels were abnormally high.

Moreover, we show that bank profitability in some countries has been a concern for many years now, starting well before the QE programme. The main drivers of low profitability have been non-performing loans, legal risks and other problems unrelated to net interest income, which has remained fairly stable.

Overall, we cannot yet see any major bank profitability issue arising out of the ECB's QE programme.

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1. Introduction

European Central Bank policy is and remains controversial. Since the start of the crisis, the ECB's balance sheet has doubled. The quantitative easing (QE) programme that started in the second quarter of 2015 increased the size of the ECB's balance sheet by just over 9 percentage points to 28 percent of GDP¹. Beyond the risks arising from sovereign bond holdings, the debate on QE mainly centres on four aspects. The first is the question of whether the programme actually contributes to inflation. The second is the question of when is the right moment to end it, irrespective of whether it actually works. Third, there is an important debate about whether QE unduly 'dispossesses' savers. Finally, there is the question of whether QE should be ended earlier because of its impact on financial stability and, in particular, the profitability of banks and insurers. Depending on the weight given to each of these four aspects and how they are assessed, different conclusions have been drawn regarding ECB policy. This paper focuses on the fourth aspect and in particular the impact on banks². In the introduction, we briefly review a few arguments around the first three aspects.

There is a surprisingly broad consensus about the effectiveness of the ECB's QE programme. Studies have documented the positive impact on prices of assets and the reduction and flattening of yield curves, and have also cautiously found support for a positive impact on investment and consumption (see, for example, German Council of Economic Advisors, 2016; Praet, 2016; Draghi, 2016; Demertzis and Wolpin, 2016)³. And indeed, since the announcement and start of QE, growth has picked up, the main contributors being gross capital formation and household expenditure (see charts in the Annex).

There is less consensus on the right moment to exit the programme. The German Council of Economic Advisors (2016) argues that the ECB should taper its Asset Purchase Programme (APP) and that the current monetary policy position is no longer appropriate for economic conditions. Inflation measures such as the Harmonised Index of Consumer Prices (HICP) might provide an inaccurate picture because of volatile energy prices and, moreover, financial stability risks are high. By contrast, the latest CFM⁴ survey results show that 77 percent of macroeconomists disagreed or strongly disagreed with the view that

... Figure 1 illustrates that HICP and core inflation remain very low compared to the ECB's inflation goal, so that further monetary support is warranted.

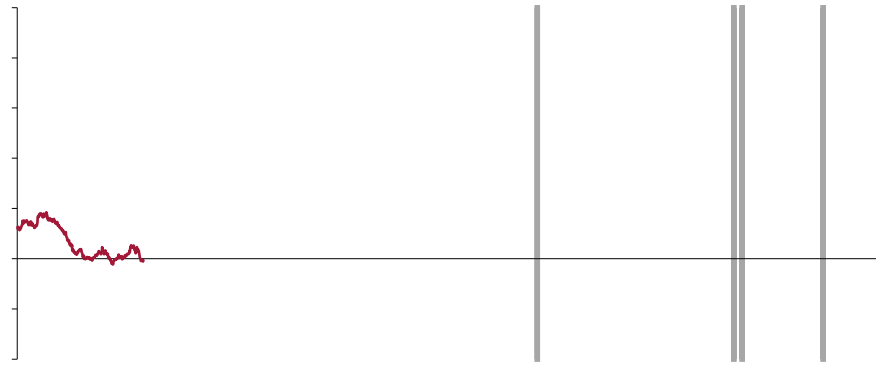
There is less of an academic debate on the ...⁵ because this is a mostly politically driven issue. By its very nature, monetary policy will have an impact on the relative wealth of savers and investors. An unexpected decrease in the interest rate is an effective policy tool for the ECB because it does make savings less attractive and investments more attractive. This question therefore ultimately becomes a question of why nominal yields are relatively low and whether ...

primary driver of it. The recent increase in long-term yields is one sign that political decisions, the amount of public investment and the expectations of market participants can quickly increase long-term yields, despite continued central bank action. We have argued elsewhere that perhaps more important than continuous central banking activity are structural and



guidance and expectations of conventional monetary policy. Term spreads fell from very high levels in the periphery countries during 2013 and 2014 (Figure 2), but have increased since the announcement and start of QE⁹. Since the ECB announcement of the expansion of the PSPP and the March 2016 decision to include corporate bonds, term spreads have been on a declining, though volatile, path. However, in the latter part of 2016, term spreads increased again. Broadly speaking they have regained the same level as at the start of QE. It is difficult therefore to discern a strong and lasting effect of QE on the term spread.

Figure 2: Government bond term spreads (10 year yields – 1 year yields) (%)



Source: Bloomberg. Note: 1) 'Whatever it takes' (see footnote 8); 2) PSPP announcement; 3) Start of PSPP; 4) CSPP and expansion of PSPP.

Figure 3: Lending-deposit rate spread on new credit, euro area by sector (%)

Source: European Central Bank. Notes: 1) 'Whatever it takes' (see footnote 8); 2) PSPP announcement; 3) Start of PSPP; 4) CSPP and expansion of PSPP. Spread NFCs: Loans other than revolving loans and overdrafts, convenience and extended credit card debt, Total initial rate fixation, Total amount, New business coverage, Non-Financial corporations (S.11) sector, denominated in euro; Overnight deposits, Total original maturity, New business coverage, Non-Financial corporations (S.11) sector, denominated in euro. Spread HHs: Lending for house purchase excluding revolving loans and overdrafts, convenience and extended credit card debt, Total initial rate fixation, New business coverage, Households and non-profit institutions serving households (S.14 and S.15) sector, denominated in euro; Overnight deposits, Total original maturity, New business coverage, Households and non-profit institutions serving households (S.14 and S.15) sector, denominated in euro.

⁹ <http://www.ecb.europa.eu/press/presscon/2015/150901a.html>

Profits are affected when the lending-deposit rate spread narrows, as banks borrow short term (typically through deposits) to invest in long-term assets. The lending-deposit rate, and therefore the margin for banks to make profits, continues to decline. For the euro area as a whole, this reduction in the lending-deposit rate is visible for new lending to households and the non-financial corporate sector (Figure 3). In terms of new lending, the lending-deposit spread in September 2016 amounted to 1.77 percent for households and 1.55 percent for non-financial corporations.

Nevertheless, the impact on total profitability depends also on the number of loans issued. Loans to households continue to grow at a rate of two percent and loans to non-financial corporations are now starting to show a positive growth rate (see Figure A4 in the Annex).

Quantitative easing also affects asset prices through what is known as the ‘portfolio balance’ channel. As banks sell these assets to the central bank, they reallocate the cash obtained to riskier assets in order to generate greater profits. But the immediate effect of quantitative easing on bank profitability is known as the ‘scarcity effect’ (Montecino and Epstein, 2014). As securities of different maturities are imperfect substitutes, the increase in the central bank’s demand for long-term securities should make them less available in the market and should therefore also increase their price (all things being equal). This effect is possible because the central bank is a large player that aims to use QE to shift bank incentives. Montecino and Epstein (2014) assessed the level of profitability of US banks that sold directly to the Fed as part of the Large-Scale Asset Purchases (LSAP) programme¹⁰. They found that by comparison to banks that were not part of LSAP, their profitability went up by 0.35 of a percentage point.

This is economically a significant number in an era when profitability hovers around zero.

3. Bank profitability: perceptions and facts

The arguments so far imply that the total effects of QE on bank profitability are threefold:

1. Positive effect: scarcity effect through an increase in capital gains;
2. Negative effect: lowering and flattening of the yield curve leads to lower opportunities for profits arising from lending – deposit rate spread;
3. Finally, improved macro conditions increase the demand for credit and the quality of credit, benefiting banks.

But what does the data on bank profitability actually show and how do banks perceive the current situation?

In its regular Bank Lending Survey, the ECB asks banks how they perceive the impact of QE on their profitability. Figure 4 shows that since the end of 2015 banks in the euro area have on average taken an increasingly negative view about their ability to generate profits, because of QE.

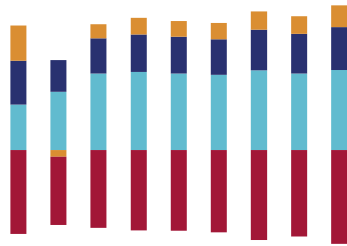
The banks also acknowledge that capital gains are positive (the first effect) but consider this to be outweighed by the negative effect on net interest margins (thus the total is negative in Figure 4). It would be important to see whether these perceptions match reality.

¹⁰ Data available at www.ecb.int/press/pr/20160908 (Montecino and Epstein, 2016).

Figure 4: Impact of the expanded APP on euro area banks' profitability

Source: Bank Lending survey, ECB (results of surveys in April and October, 2015, 2016). Notes: The y-axis shows the difference between the share of 'increase/improve considerable/somewhat' responses and 'decrease/deteriorate considerably/somewhat' responses¹. Answer to the question 130:

Figure 5: Bank profitability, euro area (% of total assets)

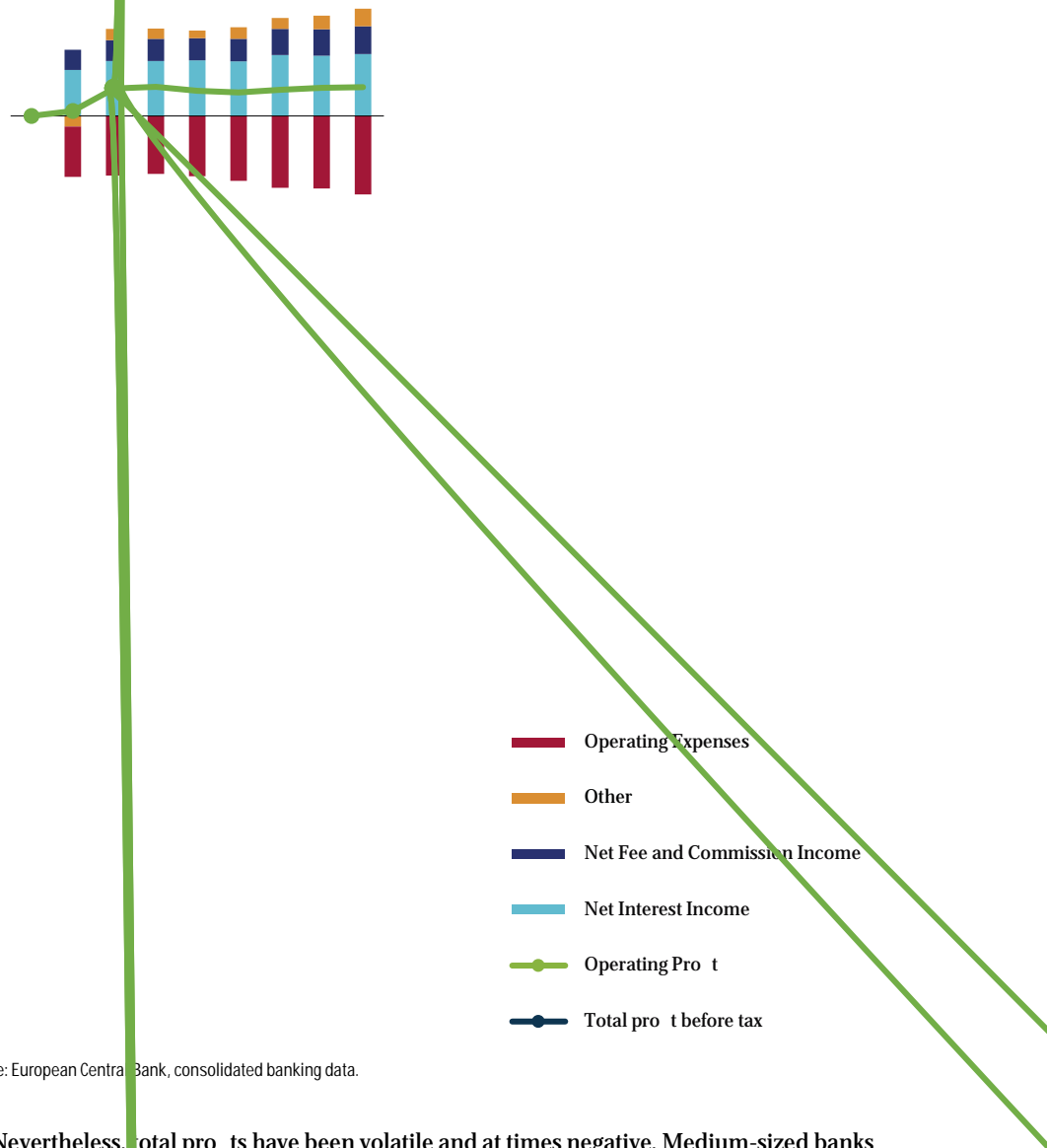


Source: European Central Bank, consolidated banking data. Note: Definition of bank size based on assets as a percentage of total consolidated assets of EU banks – Large (greater than 0.5 percent), Medium-sized (between 0.5 percent and 0.005 percent), Small (less than 0.005 percent).

Figure 6: Bank profitability, euro area (% of total assets), quarterly profile with latest data (up to Q2 2016)

Source: SNL Financial, Bruegel calculations.

Figure 7: Bank profitability (selected countries) (% of total assets)



Source: European Central Bank, consolidated banking data.

Nevertheless, total profits have been volatile and at times negative. Medium-sized banks appear to have been hit hardest in this respect. The main drivers of this volatility and the losses have been losses arising from provisioning for non-performing loans, which accounts for the difference between the two types of profits shown. Legal costs are categorised as operating expenses and are therefore part of the operating profit. Figure 5 shows that euro-area banks, irrespective of size, have made progress in reducing the burden arising from loss provisioning. In the case of small banks, this gap has even been eliminated.

The second quarter 2016 data on bank profitability¹² confirms that net interest income remains stable and total profits have even recovered (Figure 6).

A closer look reveals some differences between countries in terms of total profits before taxes (Figure 7). In particular, the data confirms that profitability is in particular low in Germany (0.34 percent of total assets in 2015) and Italy (0.29 percent). However, as already noted, net interest income (and operating profits) have remained very stable over time in all countries. What has changed is total profits over tax, which reflects the quality of credit on banks'

12 This data covers 36 of the 129 banks supervised by the ECB, representing 32 percent of consolidated euro-area banking assets in 2015. We look at a group of stable composition, even if incomplete, to ensure comparability.

balance sheets. We see that Italy and Spain, the two countries among the five we consider that have the greatest number of non-performing loans (Figure A.5 in the Annex), have seen negative profitability.

The aggregate macroeconomic pictures could give a distorted picture because they do



that the APP is negatively affecting their net interest margins. However, there are also differences between countries.

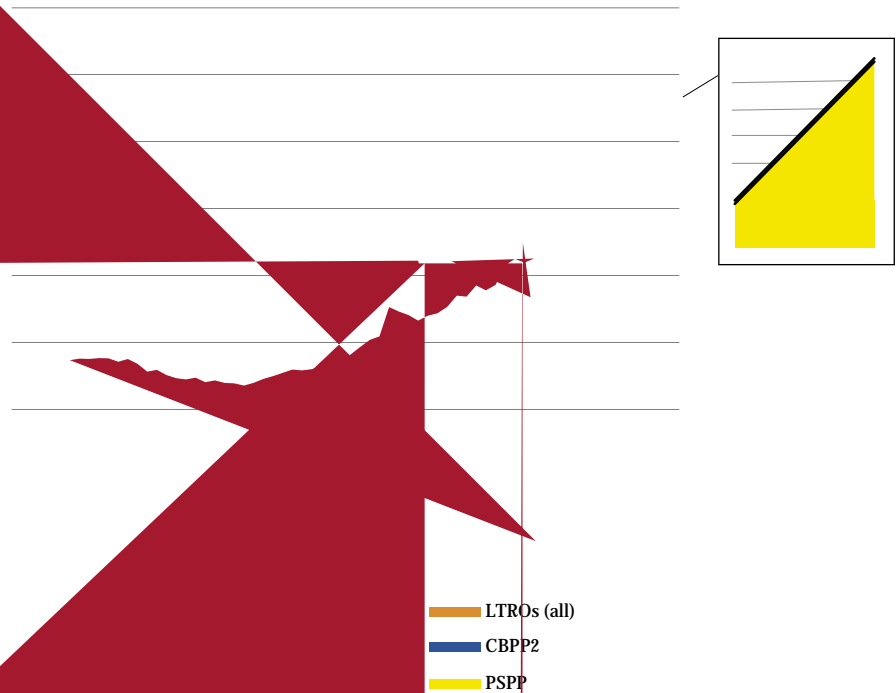
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Annex A: QE and its macroeconomic effects

Figure A1 shows the evolution of the ECB's balance sheet since its inception. The yellow shaded area shows the effects of QE on the total amount held. It corresponds to about a third of the current total.

Figure A1: ECB's balance sheet as percentage of euro area GDP



Quantitative Easing Programme amounts to up to October 2016).

GDP growth in the euro area and its contributors. Household consumption remain the two main drivers of

fixed capital formation and lending have been supported by QE. More specifically, lending to non-financial corporations has increased since 2012, only to stabilise in the second half of 2015. Household consumption has held more robustly, and has indeed contributed to GDP growth: from a yearly growth of around 0% to one of around 1.5% in 2015, which was helped by the stabilisation of the euro area, has been important in reversing and sustaining investment to growth.

Efforts of dealing with impaired assets at the EU level of NPLs and has managed to implement a significant amount of impaired assets and has been slow to reduce them in other three countries, (Germany, France and the Netherlands), which affected their profitability.

Figure A5: Gross non-performing debt instruments, % of total gross debt instruments

Source: European Central Bank. Note: peak year to 2016Q1.

Annex B: The channels through which QE affects the economy

Krishnamurthy and Vissing-Jorgensen (2011) have outlined the different channels through which Quantitative Easing (QE) may affect medium and long-term interest rates. The seven theoretical channels are summarised below.

- **Signalling channel**

the real risk premium channel implies that QE policy through MBS purchases lowers Mortgage Backed Securities yields relative to other bond market yields. This channel is more relevant for the US than the euro area.

- **the default risk channel** addresses the reduction of default risk and default risk premium motivated by the spurring effects of unconventional monetary policy in economic activity. Under these conditions, it is expected that default risk of companies will decrease, leading to a decrease in rates. A reduction in investor risk aversion is also expectable, with a negative impact on default risk premium.
- Finally, Quantitative Easing may impact the real economy **the inflation channel**, as the possible expansionary effects of QE can increase inflation expectations.

The authors note that, as a given interest rate may be affected through a variety of channels, one cannot infer the overall effect of QE from examining a specific asset type.

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