Box I.2: Euro area banks 10 years after the crisis

Banks remain vital to the functioning of the EU economy notwithstanding an increased use of market funding by non-financial corporations over the last decade. Large corporations began disintermediating the banking sector during the sovereign debt crisis in 2010-2012, as high interest rates and credit rationing in some Member State economies, encouraged them to turn to financial markets, instead. More recently, progress made on the Capital Markets Union also contributed to an increased role of financial markets in funding the private sector. However, for households and SMEs, – the backbone of the EU economy – banks remain the predominant source of funding. [(1)]

The banking sector's ability to perform its role of main funding provider to the real economy is subject to its own financial health and stability. A lot has been done over the last ten years to make the banking system safer, notably a new supervisory and resolution architecture (the Banking Union) with a renewed institutional setup and a general overhaul of the regulatory framework.

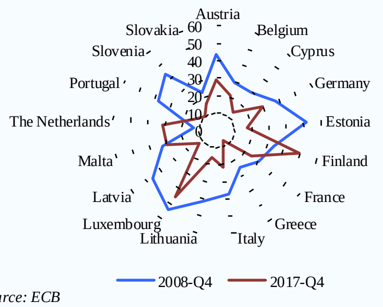
This box shows that although the resilience of the euro area banking system appears to have improved, a number of challenges remain. [(2)] In particular, the profitability of euro area banks in general remains weak. Moreover, the quality and the composition of banks' assets continue to pose some risks in certain Member States.

Banks are more resilient

The resilience of the euro area banking sector appears to have improved since the crisis, as banks have adapted their funding structures and strengthened their capacity to absorb losses in response to the Basel III regulatory framework and the EU's Capital Requirements Regulation and Directive (CRR/CRD4). The sector has also benefited from the European Central Bank (ECB)'s accommodative monetary policy while the EU's new common institutional framework has contributed to improving financial stability in the euro area and beyond. [(3)]

Banks' liability structures suggest that their funding has become more stable, less expensive, and more immune to tensions in financial markets. This has been achieved by banks shifting away from wholesale markets towards deposits and ECB funding. The importance of market funding[(4)] has declined in most euro area Member States since 2008. This is also connected to relatively higher market funding costs, particularly during periods of tensions in financial markets. As a result, the reliance of euro area banks on market funding amounted on average to less than a third of their total liabilities at the end of 2017 (the most recent year for which data are available). [(5)] Just before the beginning of the crisis, market funding accounted for around 40% or more in most euro area Member States (see Graph 1). [(6)]

Graph 1: **Share of market funding in total liabilities**



Source: ECB

Meanwhile, deposits have risen quite significantly in all Member States, outpacing the rise in loans in most cases and resulting in lower loan-to-deposit ratios in the vast majority of countries with the notable exception of Greece. Deposit interest rates have also declined significantly and converged towards zero in most euro area Member States. Funding from the ECB, particularly in the form of Targeted Longer-term Refinancing Operations

(1) See for instance ECB (2017), Report on financial structures, and ECB (2016), *Economic Bulletin*, Issue 5, Box 5 'Trends in the external financing structure of euro area non-financial corporations'.

(2) The analysis conducted in this box focuses on euro area banks to ensure as much as possible cross-country comparability. This is not to say that most of challenges and issues discussed in this box are also true for EU banks outside the euro area.

(3) The EU banking union is however not complete with only the first two pillars functional (Single Supervisory Mechanism, Single Resolution Mechanism). In particular, the SSM has been instrumental in ensuring convergence of supervisory standards and practices. The European Deposit Insurance Scheme (EDIS), as the last pillar, would complete the banking union.

(4) Market funding refers to wholesale funding sources i.e. bond and money markets.

(5) Total liabilities exclude capital and reserves.

(6) There are no data available for Spain and Ireland.

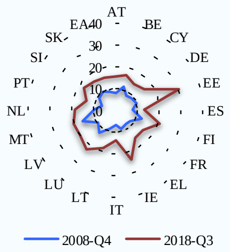
(Continued on the next page)

Box (continued)

(TLTROs), has also come at low cost and has been supportive for banks' funding conditions.

The latest European Banking Authority stress test confirms that EU and euro area banks have been successful at improving their capital ratios and therefore their capacity to absorb losses and withstand severe shocks. Tier 1 ratios increased across the euro area, from below 10% in 2008 to around 15% in 2018 (see Graph 2). [7] The ratio of capital to risk-weighted assets (RWA) has risen both as a result of capital increases and a reduction in banks' RWA. Improvements in the Tier 1 capital appear to be less generalised and has even decreased in some euro area Member States. [8]

Graph 2: **Tier 1 capital ratios (in %)**



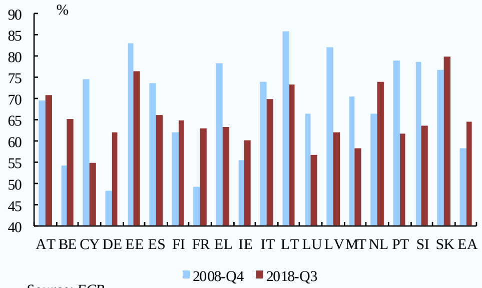
Source: ECB

Meanwhile, the decline in RWA has been substantial and broad based across euro area Member States. The RWA have decreased in most Member States but to varying degrees. [9] Moreover, the increased regulatory and supervisory attention paid to internal models has contributed to the consistency of the RWAs of internal models, and has lifted RWAs in some banks with artificially low RWAs. [10] The sharpest reductions were recorded in Germany and Spain although substantial decreases have also taken place in Ireland, Italy and the Netherlands. However, the relative riskiness of banks' assets (as measured by the share of RWA in total assets) has only marginally declined. This is largely due to an increase in loans, particularly those provided to SMEs, which are considered risky and have therefore relatively high-risk weights.

Lending remains the key activity of euro area banks

Loans have increased as a proportion of total assets in the euro area banking sector. Given that large corporations have partly migrated to markets for their external funding, bank lending to SMEs and to households in the form of mortgages has been growing much faster than lending to large corporations since the sovereign debt crisis. Developments in bank lending activity, however, have evolved differently across the euro area, leading to a rebalancing (see Graph 3).

Graph 3: **Share of total loans in total assets**



Source: ECB

The share of loans in total assets has declined the most in Member States where this share was relatively high in 2008 and where lending growth prior to the 2008 crisis was strongest (e.g. Spain, Slovenia, Greece). At the same time, it has increased in Member States that had low loan-to-asset ratios in 2008.

(7) The Tier 1 capital ratio is used in this box in order to ensure a greater comparability of banks' capital situation relative to 2008 when less strict capital regulatory requirements prevailed. However, the common equity Tier 1 (CET1) represents the main variable used under the most recent capital regulatory requirements,

(8) In 2018-Q1, the first time use of International Financial Reporting Standard 9 (IFRS 9) impacted negatively on capital ratios as it requires higher provisioning. The International Financial Reporting Standard 9 introduced an "expected credit loss" framework for the recognition of impairments. It is a more forward-looking approach than its predecessor and will result in more timely recognition of credit losses. More pronounced decreases in capital ratios were observed in euro area Member States more affected by the sovereign debt crisis where capital ratios had been already lower.

(9) In some Member States, the increase in the share of sovereign debt holdings, which have zero-risk weights, have contributed to a decline in RWA.

(10) In December 2015, the ECB decided that it would carry out a targeted review of internal models (TRIM). On-site investigations started in 2017, following initial preparatory work in 2016 to identify the underlying methodology and tools and the models to be reviewed. Further on-site investigations will continue in 2019.

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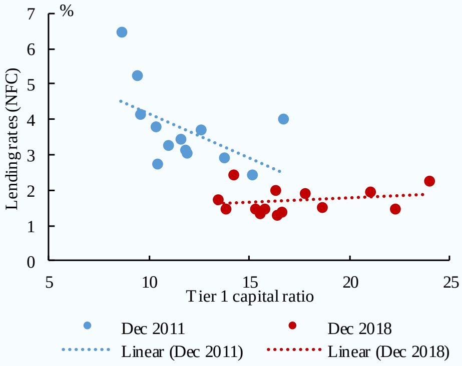
Box (continued)

Bank lending conditions have converged across the euro area

During the euro area banking and sovereign crisis in 2010-2012, a number of dysfunctions within the banking sector such as the sovereign-bank nexus, deteriorated asset quality and lower capital ratios impaired the transmission of the ECB's monetary policy. The progress made since then has been substantial but cross-country dispersion in most indicators for the banking sector remain. Positively though, bank lending rates for households and non-financial corporations have re-converged across the euro area since 2012, and are back to pre-2008 levels.

Resilience, as reflected by capital ratios, increased in all Member States between 2011 and 2018, but the dispersion of capital ratios in 2018 was still comparable to that prevailing in 2011. Meanwhile, interest rates for non-financial corporations declined for all countries and the dispersion narrowed significantly. It appears that in 2011 a negative correlation prevailed between capital ratios and bank lending rates with the least capitalised banks charging higher interest rates. This correlation is no longer apparent in the 2018 data (see Graph 4). However, this does not necessarily suggest a single causal link as other factors, such as the sovereign-bank nexus and asset quality, also played a role in the dispersion of interest rates during the 2011-2012 period.

Graph 4: **Capital ratios vs bank lending rates (NFCs)**



Source: ECB, own calculations

In addition to the convergence in bank lending rates, non-price credit conditions have also improved in all Member States since the peak of the euro area sovereign crisis. [11] However, heterogeneity in bank loan supply conditions persists across euro area Member States and has been related, *inter alia*, to differences in the composition and quality of assets (see discussion below). At the same time, the cross-country differences in lending volumes come on the back of differences in loan demand linked to Member States' economic and sectoral specificities (see financial market section).

Overall, some of the factors that hindered the uniform transmission of monetary policy appear to have improved in recent years (e.g. capital ratios). Still, banks in some Member States continue to face structural weaknesses that could hamper their intermediation capacity and pose financial stability risks.

Profitability remains weak

Banks' profitability varies significantly across banks and despite some positive examples remains in many cases weak with lower levels in 2018 than in the pre-crisis period. While average profitability for euro are banks, as measured by the return on equity (ROE), was around 10% before the crisis, it has declined during the crisis and has not improved significantly since. It now stands at around 6.5%, which is well below the cost of equity, estimated at around 8% to 10% on average. Behind this decline in profitability lies both sluggish revenues and persistently high costs since the crisis. These are driven by inadequate business models, competition including from non-banks and, in some cases, crowded 'overbanked' domestic markets.

Developments in the Net Interest Income (NII) are a key differentiating factor between over- and underperforming banks in terms of profitability as it is the most important component of euro area bank revenues. [12] Since the crisis, the bank NII has declined at the euro area level, although the situation differs among Member States (see Graph 5).

The protracted low interest rate environment and flattened yield curves have contributed to narrowing of net interest margins while the volume effect on interest-earning assets varies across banks. Banks with rising NII have managed to offset the negative impact on net interest margins with robust growth in interest-earning assets, while the banks with lower NII have recorded a decline in

[11] See the quarterly series of ECB Bank Lending Survey.

[12] The NII contributes by nearly 60% to banks' revenues, followed by net fee and commission income (around 30%) and net trading income (5%), (EBA 2018, Risk Assessment Report).

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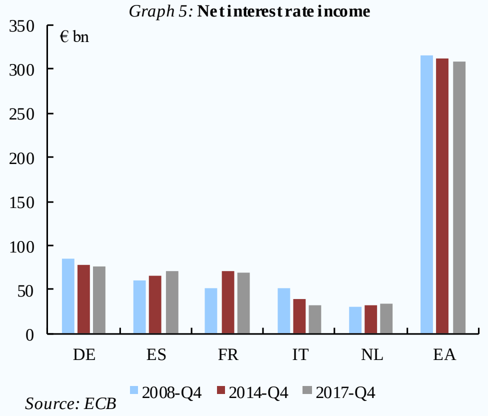
Box (continued)

both margins and volumes. [13] In some Member States, banks have benefited from their activities in regions with higher yielding assets, which have helped to improve their NII. A competitive environment on the domestic lending market may also explain differences in bank NII across euro area Member States. [14]

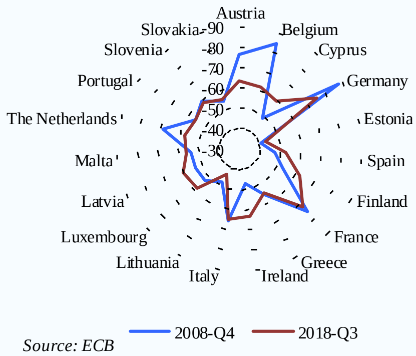
Graph 5: **Net interest rate income**



Source: ECB

On the cost side, progress has been modest, with the average cost-to-income ratio at the euro area level unchanged since the end of 2008 (see Graph 6). This measure of banks' efficiency appears to have improved in the euro area Member States where the cost-to-income ratio was generally higher than the average at the start of the crisis. [15] However, the dispersion across Member States is still wide, with the cost-to-income ratio ranging between 40% and 74% in the last quarter of 2017 (the most recent period for which data are available). From this data, it is also clear that the cost-to-income ratios remain very high for banks in several Member States. [16]

Graph 6: **Cost to income ratio (in %)**



Source: ECB

Overall, the low and poor prospects for NII combined with high operating costs suggest that the euro area is 'overbanked' and that there is a need for structural changes such as cross-border consolidation. According to the ECB's analysis [17], the best performing banks in the euro area in terms of return on equity between 2009 and 2017 were those that were able to significantly reduce their costs, invest heavily in IT and diversify their sources of income. The ECB also indicates that levels of non-performing loans (NPL) and the pace of the reduction of these levels explain to a large degree the observed differences in profitability levels across banks over the last few years. Banks with faster reduction of NPL gradually improved their NII and hence the return on equity while banks with slower reduction of NPL continued to display persistent low return on equity.

The quality and composition of bank assets remain challenging in some Member States

Asset quality, particularly on loan portfolios, has remained very heterogeneous across euro area Member States. While NPL were not an issue in 2008, NPL rose significantly in some Member States until 2014 when they started to decline gradually, including in those Member States where

[13] ECB (2018), Financial Stability Review, November.

[14] There is a rather mixed evidence about the effect of competition on bank profitability and financial stability. See for instance, Beck, T., O. De Jonghe, G. Schepens (2013). 'Bank competition and stability: Cross-country heterogeneity', *Journal of Financial Intermediation*, 22, pp 218-244 and Leroy, A. and Y. Lucotte (2017). 'Is there a competition-stability trade-off in European banking?, *Journal of International Financial Markets*, Institutions & Money, 46, pp 199-215 for evidence on a negative relationship and Goetz, M.R. (2018). 'Competition and bank stability', *Journal of Financial Intermediation*, 35, pp 57-69 for some evidence about a positive relationship.

[15] The comparison with 2008 may however be somewhat biased for some countries due to the rapid decline in bank revenues (the denominator of cost-to-income) while cost adjustments tend to be slower.

[16] High cost levels in the banking sector are also due to the need to replace old ICT systems and invest in new financial technologies. Legal risks and fixed costs, such as regulatory compliance costs are also significant for small banks.

[17] See ECB (2018), Financial Stability Review, November.

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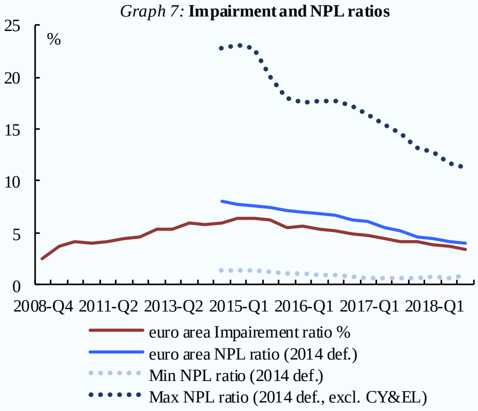
Box (continued)

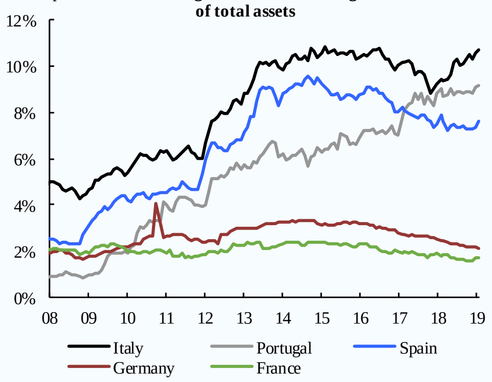
they had increased the most.[18] In 2014, the asset quality review conducted by the ECB with regard to the significant banking groups was a milestone for a more consistent recognition of NPL. The reduction of the stocks of NPL since 2014 has been helped by cures, liquidations and write-offs while an increasingly active secondary market for NPL has also contributed significantly, notably in Italy [19] (see Graph 7). In its third progress report on the reduction of NPL, the Commission highlighted that NPL in the European banking sector had declined further, now standing at an EU average of 3.4% (Report issued on 28 November 2018). In a number of Member States, coverage ratios of NPL have increased compared with 2014 when levels of NPL peaked, which suggests that euro area banks have made efforts in terms of provisioning since 2014. These will need to continue if provisioning levels are to return to where they were before 2008. [20] In March 2018, the Commission presented an Action plan to tackle high NPL ratios, and to speed up progress already made in reducing NPL and prevent their renewed build-up.

Graph 7: **Impairment and NPL ratios**



In terms of the composition of bank assets, one important aspect is the high share of domestic sovereign debt in some euro area Member States. Banks holdings of domestic sovereign debt have increased since 2008 in the most vulnerable Member States (see Graph 8). This signals a rising risk due to the kind of harmful feedback loops seen during the crisis as it perpetuates a dangerous degree of interdependence between banks and their sovereigns. This could affect bank funding conditions if tensions were to hit sovereign debt markets. The episode of rising sovereign yields in Italy last year came as a reminder of such adverse developments and shows that this particular objective of the Banking Union has not yet been achieved.

Graph 8: **Banks' holdings of domestic sovereign debt as share of total assets**

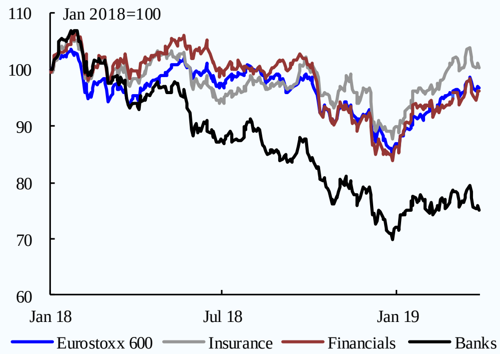


Source: ECB, own calculations

Market perceptions of banks remain negative

Despite the progress made on making banks safer, many investors retain a negative bias towards the euro area banking sector based on its poor profitability. Over the last year, equity prices of euro area banks fell significantly, underperforming other financial firms and the global market (see Graph 9).

Graph 9: **European financial stocks by sector**



Source: Bloomberg

Meanwhile, banks' credit default swap spreads, which reflect their credit risk, widened broadly with sharp spikes for some banks. These developments reflect investors' scepticism about the sustainability of banks' profitability. In some euro area Member States, this has been accentuated by concerns about

[18] In this box, data on the gross non-performing debt instruments have been used to ensure a greater comparability over time.

[19] See EBA (2018), Risk Assessment Report.

[20] In 2018, the first time adoption of IFRS 9 led to increased provisioning coverage of NPL (EBA (2018), Risk Assessment Report).

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Box (continued)

Banks may face a number of challenges in the near future

Market expectations for interest rates point to low levels and a flat yield curve over the forecast horizon. This reflects expectations for continued growth but at lower pace than in 2017 and 2018 and a subdued inflation outlook. This context is rather unfavourable for banks as NII may struggle to grow over the coming years if interest margins remain narrow and lending volume growth is modest. (21) In addition, more subdued economic growth could lead to a reversal in the trend of declining NPL. All these factors could keep NII levels low and add pressure on banks to intensify their cost-cutting efforts at a time when they need to invest in digitalisation and protection against cyber-attacks.

Low profitability and a continued negative market perception could lead to additional pressure on funding costs in a context where banks have to meet forthcoming loss absorbing buffer requirements, i.e. Minimum Requirement of own funds and Eligible Liabilities (MREL) in the EU. (22) This would raise the cost of funding for banks as bail-inable instruments are more expensive than senior debt securities and certainly more expensive than the ECB funding.

If investor sentiment towards the banking sector deteriorates further, returns on equity could decline, as it could lead to higher funding costs while the cost of equity would increase. This risk of a widening gap between the return and the cost of equity appears for some banks and could only be addressed by structural changes in the banking sector. (23) Indeed, a more efficient banking system would not only lead to improved return on equity but also convince investors on banks' safety and the sustainability of profits and hence lead to lower cost of equity. (24) A convergence between the return and the cost of equity would allow banks to raise capital when needed and ensure financial stability.

Conclusion

According to a number of indicators, the resilience of the euro area banking sector has clearly improved since the sovereign debt crisis and compared to pre-2008 levels. In particular, banks' capacity to absorb losses as measured by their capital ratios has increased and funding structures have become more stable and less expensive. However, the performance of a number of indicators varies across banks, which also results in a still high dispersion across Member States. Meanwhile, despite differences in banking systems across the euro area, the transmission of monetary policy has become more effective, with interest rates on loans to the private sector converging across the euro area. Despite these clear achievements, banks continue to face certain challenges in the euro area and the EU. The principal challenge is the weak profitability. Banks may need to reduce costs and diversify income sources if bank net interest income (NII) continues to stagnate in a context of persistently low interest rates and increased competition, including from non-banks. While the latest stress tests from the European Banking Authority showed that the resilience of EU banks has improved overall, a number of risks such as worsening macroeconomic conditions or renewed tensions on specific sovereign markets could hurt banks in some Member States disproportionately. Preventing this situation requires monitoring and well-designed policies in order to preserve financial stability and the effective transmission of monetary policy. Completing the Banking Union with a European common deposit insurance scheme (EDIS) and accelerating the integration of EU capital markets to enhance private risk sharing, should remain priorities as this would weaken the threat of the bank-sovereign nexus and enhance the stability of euro area banks.

(21) See Section I.3 for lending volumes forecast and the box "Some technical elements behind the forecast" for interest rate assumptions.

(22) The Bank Recovery and Resolution Directive (BRRD) requires banks to meet the Minimum Requirement of own funds and Eligible Liabilities (MREL) to enhance loss absorbing capacities. Aggregated MREL shortfall was estimated at €117 bn end 2017 but could rise under new BRRD2 rules. Essentially smaller EU banks are concerned by these requirements while most of the largest GSIBs have already reached the minimum TLAC (Total Loss Absorbing Capacity) requirements.

(23) See Dombret, A., Y. Gündüz and J. Rocholl, (2017). 'Will German banks earn their cost of capital?', *Contemporary Economic Policy*, Vol. 37, No. 1, for an empirical analysis of the German banks. However, this issue concerns a number of banks across the euro area and not particularly in Germany.

(24) See also ECB (2018), Financial Stability Review.