IN-DEPTH ANALYSIS

Requested by the ECON committee

Main factors for the subdued profitability of significant banks in the Banking Union

Banking Union Scrutiny

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What are the main factors for the subdued profitability of significant banks in the Banking Union, and is the ECB's supervisory response conclusive and exhaustive?

Banking Union Scrutiny

Abstract

There is no "one-size-fits-all" strategy to achieve viable profitability, but all banks need good strategic steering and risk management capabilities to adjust their business mix to changes in the operating environment. Banks have already taken actions to enhance profitability and the room of manoeuvre for the future is not that ample. Policy makers can take further initiatives to fix structural inefficiencies and provide better conditions for banks to enhance profitability. These concerted actions would help reduce the gap between banks' return on equity and cost-of-equity.

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LIST OF ABBREVIATIONS

ECB	European Central Bank
NII	Net Interest Income
NFCI	Net Fee and Commission Income
NPLs	Non performing loans
JSTs	Joint Supervisory Teams
ROA	Return on Assets
ROE	Return on Equity
SIs	Significant Institutions
SSM	Single Supervisory Mechanism

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EXECUTIVE SUMMARY

Background

The financial crisis and new regulatory requirements have had a profound impact on bank business. For several banks, pre-crisis profitability levels were boosted by high leverage, reliance on affordable wholesale funding and, in some cases, elevated risk-taking in order to generate high revenues. Changes in banks' behaviour and in the regulatory framework have made some of the (previously) most profitable business strategies less viable. The weak macroeconomic conditions also have contributed to deteriorating performances since the crisis. As a result, in terms of return on equity (RoE) and return on assets (RoA), euro area banks have compared unfavourably to their international peers since the global financial crisis (Fig. 1). Lower profitability of listed banks had translated into below-par price-to-book value, meaning that current and expected bank returns are below stockholders' expectations (Fig. 2).

Prolonged scarce profitability is indeed relevant from a financial stability perspective because it reduces banks' ability to generate capital internally through retained earnings and give incentives to excessive risk taking. As such, scarce bank profitability has become a major concern for European supervisors (Constâncio, 2017; de Guindos, 2019).

Against this background, the Single Supervisory Mechanism (SSM) has recently carried out a 2-year review on profitability drivers at significant institutions (SIs) in the euro area; banks' profitability and business models have been assessed by examining several dimensions based of the contribution to net income (ECB, 2019). An important area of assessment has been the bank's strategy. Strategy is relevant because the possibility to return to sustainable profits will depend on the ability to adapt business mix to a diverse set of external factors that include new regulatory requirements, unconventional monetary policies, increased competition from nonbanks financial intermediaries and disruption from new technologies. These factors have made it difficult for banks to continue operating efficiently with their existing business models.

The main message of the SSM review is that each bank is different and there is no "one-size-fits-all" strategy for business model adjustment. While some of the post-crisis trends have certainly contributed to making banks safer (e.g., reduced leverage and organizational complexity, shift to stable funding), the results presented highlight that, in the current context, there is not necessarily one specific business model that is preferable *per se*. It follows that among possible strategies to enhance profitability (i.e., income diversification, shift to fee income, cost optimization, and risk reduction), there is no better option than others. Yet, independently on the strategy, banks need good strategic steering and risk management capabilities to adjust their business model to changes in their operating environment.

Cyclical challenges to profitability are in some cases exacerbated by structural factors, such as overcapacity in certain banking markets. Overcapacity has several dimensions requiring interventions at a twofold level, as both market forces and policy makers need to take actions.

More generally, given the multiple challenges faced by banks, firm-specific actions to enhance profitability needs to be accompanied by incisive policy makers' initiatives. In this last respect, it is important to fix some structural inefficiencies at national and supra-national level in order to promote the most fertile environment for banks to operate. These concerted actions would help to reduce the gap between banks' RoE and cost-of-equity. This needs to be closed not only by requiring banks to adjust RoE. Strengthening the institutional framework would help foster investors' confidence and possibly realign their risk/return appetite to more viable levels of profitability.

Aim

The goal of the paper is to comment on the outcome of the assessment on profitability and business models carried out by the SSM in 2016-2018. First, we summarise the findings of the assessment. Second, we review the main related literature on drivers of bank profitability. We focus on most recent empirical studies on European banks. Third, we compare the outcome of the SSM assessment to the main findings of reviewed studies. Finally, we critically comment on supervisory responses, by highlighting some controversial issues emerged from our analysis.

1. THE SSM THEMATIC REVIEW ON BUSINESS MODELS AND DRIVERS OF PROFITABILITY

1.1. Main objectives and contents

In 2016 European banking supervision launched a thematic review for the in-depth assessment of the business models and profitability drivers of SIs in the euro area. The review took on a micro perspective, with the bank-level analysis being the main pillar.

Banks' business models and profitability drivers are a key priority for European banking supervision. Profitable banks can generate capital internally and hold adequate buffers, while maintaining a reasonable risk appetite in order to keep on lending to the real economy. However, in the current environment, euro area banks' profitability is not only challenged by low interest rates and high provisioning, but also by structural factors, such as overcapacity, tougher competition from non-banks, increasing customer demand for digital services as well as new regulatory requirements.

The thematic review addresses banks' profitability drivers at the firm level and across business models. Spanning two years, it had several objectives: assessing banks' ability to mitigate weaknesses in their business models; monitoring how weak profitability impacts on banks' behaviour; enriching horizontal analysis, in particular by pooling the insights gained by the joint supervisory teams (JSTs) and harmonising their follow-up across banks to facilitate peer comparison. Results of the individual bank-level analysis fed into the 2018 SREP (Element 1, business model assessment).

To achieve the above mentioned goals, the review entailed the analysis of the three following areas:

- sustainability of net income by assessing the main sources of revenues and costs (interest income, fees and commissions, trading income, operational costs, cost of risk)
- quality of the framework to steer profitability (e.g., cost analysis / cost allocation and loan pricing)
- quality of strategic aspects, such as governance, feasibility and consistency of the strategy, and impact of the strategy on the risk profile.

Figure 3 illustrates the timeline of the two-year review.

1.2. Main results

1.2.1. Overview of profitability (main facts)

The supervisory review documents that SSM banks' profits (indicated in term of RoE and RoA) remain largely below those of US banks and anyway lower than pre-crisis level in the euro area. There are structural and cyclical factors at the micro and macro level behind this evidence that we summarize as follows:

- Despite the decline at many banks in recent years, the aggregate stock of non-performing loans (NPLs) remain far too high by international standards (cost of risk remains high).
- Despite significant shrinkage, excess capacity persist, posing a burden on cost structures (operational costs remain high).
- The accommodative monetary policy, while alleviating the cost of funding, also determined net interest margin compression. However, (i) loan growth compensated for most of margin compression; and (ii) while reduced at aggregate level, net interest income (NII) has increased

for half of SSM banks in the last three years. In terms of business models, retail lenders suffered the most over the same time span.

- Consolidation process and competition have put pressure on revenues. Consolidation however is not generalized as some jurisdictions (namely, Italy, Germany and Austria) remain fragmented. At the same time, non-banks (i.e., Fin-Tech firms) have gained importance, starting their activity in the payments industry. In perspective, competition from Fin-techs may be disruptive for the banking industry as they may extend their activities into the lending business.
- Profitability conditions vary across banks, business models, and countries. Overall, nearly 50% of reviewed SIs improved both NII and their net fee and commission income (NFCI); a much smaller percentage (nearly 7%) could raise their core banking revenues by replacing NII with fees/commission. Yet, the remaining portion of review SIs were unable to compensate reduced interest income with other sources of revenues. In terms of business models, largest and more universal banks were in a more comfortable positions, being able to generate revenues from asset management and greater interaction with financial markets. On the other hand, retail lenders, regardless of higher fees, were not able to compensate for their large decline over the last three years.
- The analysis of top tiers banks (those with RoE and RoA above the sample average) confirms the heterogeneity in terms of business models, countries of origins and strategies; 22 banks located in 12 countries outperformed their peers achieving an average RoE of 6-15%; such an achievement was the result of either cost savings or revenue generation.
- While enhancing cost efficiency (and hence, reducing the cost-to-income ratio) is a desirable objective, hasty cost-cutting does not seem to be the best strategy, as this may undermine banks' ability to generate profits or raise opportunities in the future.
- Regardless of the improved soundness, reduced riskiness and overall tighter regulatory regime, many banks do not generate sufficient earnings to cover their cost of capital.

1.2.2. Main criticism

The ECB's review identified some criticisms in banks' strategic steering profitability. The ability to steer profitability in the long term was examined by reviewing the following "areas" classified by source of revenues or expenses: NII, NFCI, net trading income, operational costs, loan pricing and strategy. For each area, the JSTs examined drivers and future developments. The main criticisms are summarized below:

- NII and NFCI: need for sensitivity and scenario analysis of different profitability areas to assess expected volumes and margin across business lines and countries. It emerged from the analysis that, e.g., the low interest rate environment allowed banks to reduce the cost of funding. This sort of cost savings cannot be replicated for long, pointing to the importance of finding alternative strategies based on boosting income sources.
- Cost structure: the overall assessment is positive and cost management and control process seem to be effective at most of reviewed banks. Some room of manoeuvre remains. Banks are expected to produce more analytical breakdown of cost structure across business lines and distribution channels, and to provide a more precise cost allocation among business areas and the corporate centre. Banks are also expected to better assess the consequences of cost-cutting strategies on income generation. Such improvement should promote better (more informed) decision at business line level.

- Loan pricing: enhancing this area is priority for several banks. Comprehensive pricing model with minimum pricing threshold, where prices are set after taking into account the main sources of expenses associated to that loan (cost of funding and risk, operational cost, cost of capital absorbed by the loan). For banks adopting price taking approaches, a profitability analysis is needed. More generally, banks need to take more informed decision as for which loans to grant, how to price them properly, and how to monitor exceptions.
- Strategy: the main issues encountered in this area relates to the assumptions underlying banks' strategic goals in the medium term. Specifically, banks are expected to challenge these assumptions through sensitivity analysis and stress tests. A related issue is that risk management function is only partially involved in the formulation of the strategy (this occurs in 50% of the reviewed banks). Finally, these goals should be formalized into a higher number and more granular targeted key performance indicators.

Generally, deficiencies are exacerbated in large and complex organizations where it is more difficult to reconcile independence of subsidiaries with a unitary view at the group level. More accurate flow of information (e.g., on loan pricing mechanism) from subsidiaries to group control is needed. By the same token, best performing banks seems to have better strategic steering capabilities in basically all areas under analysis.

1.2.3. Banks' responses

In terms of banks' responses to profitability challenges, the main conclusions are the following.

First, there is not "one-fits-all-approach" to profitability, as discrepancies emerge among reviewed banks. The 22 top-performer banks showed different approaches to costs and income. Some were better able to manage costs, others to generate revenues, and a third group to balance between the strategies of revenue generation and cost control.

Second, go forward strategies reflect banks' current situation: weaker banks focus on cost control and NPLs, while stronger banks are more oriented to business and capital growth.

In terms of lines of business to develop, lending expansion is a more likely growth strategy for top and medium performers. A smaller share of banks plan to expand their business in new market or to enhance revenue diversification through cross-selling. Less profitable banks are the least likely to pursuit this strategy in the future, being more focused on cost optimization (including on funding costs). For some banks, expansion plans may entail internationalization strategies.

Digitalization appears to be top priority for most if not all banks, although differences emerge as for how pervasive within the organization digitalization will be. While IT budgets has grown by more than 20% in the last 5 years, and almost all banks aim to strengthen their digital (on-line and app-based) distribution channels, only a few of them aim to take advantage of IT innovation for their back-end system and processes.

1.2.4. Supervisors' main concerns

A first concern outlined by supervisors after the review, deals with execution risk and potentially optimistic assumptions behind banks' strategy: How will the strategy react if assumptions do not verify in practice?

Execution risk pertain nearly 30% of reviewed banks according to the JSTs. In these cases, potential macro-economic or regulatory shocks are not taken into account properly, and hence, supervisors are following up by asking for more correct sensitivity and downturn scenario analyses.

A second concern deals with the level of increased risk taking implicit in growth strategies, especially if related to lending. Concerns in this respect refer to the risk of credit standard relaxation, more aggressive loan pricing, or the supply of new products to reach growth targets.

Other potential sources of risk arising from banks strategy are operation risk from digitalization and the impact of cost optimization.

What is important to underline, is that supervisors do not consider these concerns as worrying *per se* but only if banks do not show good strategic steering and risk management capabilities.

On the other hand, supervisors will pay close attention on forward-looking sustainability of profitability, as there are signs of pressure to reach for yield and funding strategies. Specifically, trend on composition of loans and deposits show that asset-liability maturity mismatching is increasing, which may pose some threats on banks' net profits in a scenario of interest rate normalization.

2. WHAT THE LITERATURE TELLS US ABOUT DETERMINANTS OF BANK PROFITABILITY

A major reason why bank profitability has received increasing attention by European policy makers in the recent past (e.g., Constâncio, 2017; de Guindos, 2019) is because of the negative externalities of prolonged low profits. Specifically, while in principle low profitability indicates functioning competition in the industry, or low-risk business strategy, in practice what it worries supervisors most are its potential detrimental effects on financial system stability and credit supply. Low profitability influences banks' ability to accumulate capital internally through retained earnings, thus potentially hampering credit supply. It also may give incentive to excessive risk taking that depends on the level of profit margin and bank charter value. With small margins and hence, low charter value, there is incentive to take more risk, as cost of funding will not be paid in the event of a failure, while a higher income will be earned in the event of success (Jensen and Meckling, 1976).

A vast strand of theoretical and empirical literature has investigated the main drivers of bank profitability (preferably proxied by RoE or RoA), by focusing on either micro (bank specific) determinants or macro factors. Among the latter, monetary policy measures have traditionally played a key role.

Early studies on the impact of monetary policy on bank profitability document the existence of a positive correlation between interest rates and bank interest margins. This positive association is interpreted as a natural consequence of banks' maturity transformation activities (e.g., Flannery, 1981). The most immediate effect of a reduction in interest rate is to boost profitability, due to reduced funding cost, higher asset and collateral value, and lower default risk on the new or repriced loans.

More recently, the accommodative monetary policy cycle that followed the financial crisis has stimulated an intense debate on the potential benefits and side effects of a prolonged low interest rate environment (LIRE).[1]

Measuring the role played by recent accommodative policy measures on banks' profits is not an easy task, as several components of bank profitability are affected asymmetrically by reduced interest rates. Changes in interest rates have both a price and quantity effect, affecting interest margin and interest income volume (through the impact on the aggregate credit demand) in an opposite way. To explain the mechanism, net margin reduction can be offset by larger intermediation volumes triggered by increased credit demand. Moreover, reduced margins on maturity transformation activities may be offset by enhanced borrower creditworthiness leading to lower loan loss provisions.

In a recent work on euro area banks, Altavilla et al. (2018) document these types of offsetting mechanisms. They find that a reduction in interest rate (their proxy for conventional monetary policy) and a flattening in the yield curve (to proxy for unconventional policy) is associated to reduced profitability (RoA). They also document however that results weaken, and significance evidence of the nexus disappears, when controlling for the expected economic growth and forward looking borrower credit risk. The logic behind this finding result is that better expected macro-economic outlook and lower expected credit risk (both stimulated by accommodative policies) tend to boost credit demand

1 See Carletti and Ferrero (2017) for a comprehensive analysis of the effect of LIRE in different scenarios.

and enhance borrowers' creditworthiness, with beneficial effect in banks' performance.[2] When including bank characteristics, in line with previous studies (e.g., Detragiache et al., 2018), asset quality deterioration and reduced cost efficiency are associated with lower profitability. Conversely, they find that the reaction to accommodative monetary policies are more positive in relative terms for banks with lower cost-to-income and NPL ratios. When focusing on the components of bank profitability (NII, non interest income and provisions), in line with other studies (Claessens, 2018 among others) they find that NII decrease when interest rates drop. However, such a decrease is not sufficient to negatively affect bank profitability, which may benefit from reduced provisions. In the same vein, Lopez et al. (2019) find that banks suffer losses under low rates on net interest margins, but compensate through gains in non-interest income stemming from "other income" sources, such as capital gains on securities.

Keeping interest rates low for long has controversial effects on bank profitability. Specifically, the net benefits of accommodative monetary policies may be declining over time (Alessandri and Nelson, 2015; Borio et al., 2017), thus determining negative consequences on bank profits (Claessens et al, 2018). One mechanism is that the positive effects on repricing securities held by banks at lower interest rates are over time increasingly offset by the negative impact on net interest margins (Brunnermeier and Koby, 2019).

Focusing on micro-drivers, profitability seems largely explained by bank characteristics, business models and, to lower extent, bank location (Detragiache et al., 2018). Within each business models, maturity structure of asset and liabilities and degree of maturity transformation play a role (Altavilla et al., 2019). On the liability side, better post crisis performance is associated to larger decline in the share of wholesale funds, although the mechanism is not clear. Funding structure is important as it can either mitigate or exacerbate the effect of monetary policy easing. Taken to the extreme, easing policy measures may favor risk taking at high-deposit banks through an additional mechanism (Heider et al, 2019). When the policy rate becomes negative, greater reliance on deposits (relative to market-based debt), may have an adverse effect on bank net worth. This adverse effect on bank net worth explains why banks with more deposits should lend less and take on more risk once the policy rate becomes negative. Lopez et al. (2019) also document that the move into negative interest rates induces small and high-deposit banks to shift their assets away from cash and increase lending activity.

Connection between bank size, scale economies and profitability is also under discussion. While early empirical studies concluded that scale economies can only be realised up to a relatively small bank size (Benston et al., 1982), more recent analysis shows that even large banks can improve their performance by achieving remarkable economies of scale (see GCEE, 2019, and literature therein). This may be the result of a changing environment where fixed costs play a more important role (Mester, 2010; Laeven et al., 2016).To some extent, technological changes may have increased the optimal scale of banks (ESRB, 2014). Focusing on the euro area, empirical evidence suggests that banks across all size categories also operate on an inefficient scale and generally seem to support the existence of economies of scale for all size categories and across countries (Andreeva et al., 2019).

Improving operational efficiency could be impeded by structural features of the banking market, e.g, overcapacity in the industry. There are different concepts and metrics of overcapacities. Gardó and Klaus (2019), by reconciling various strands of literature, illustrate overcapacities along three dimensions: the degree of bank intermediation that exceeds real economic demand ("the economy is over-financed"); the presence of a large number of banks with small market shares making competition

[2] The authors find that expected GDP growth and expected default frequency ar the main macro factors explaining bank profitability, both statistically and economically.

too fierce ("the market is over-banked"); the oversized physical banking infrastructure, at the lower end of the technology frontier ("customers are over-serviced"). Table 1 provides an overview of the dimensions of overcapacities and underlying variables, while Figure 4 shows the (over)capacity of the euro banking system (as a combination of the 12 sub-indicators reported in Table 1), vis-à-vis other economies. Zero denotes an average level of capacity, and positive/negative readings denote more/less capacity than in an average banking system. It emerges an issue of overcapacity in the euro area banking market, which manifests itself mainly with an excess of physical banking infrastructure and an excess number of competitors.

The level of competition is a relevant factor to explain bank profitability, for example because higher competition puts pressure on bank margins. Price competition may affect the efficiency of the allocative process, with most banks operating as price takers and only those with larger market share being able to set prices efficiently, so as to cover the various costs associated to lending and remunerate the intermediation activity (Gardó and Klaus, 2019).

The intensity of competition is affected both by new market participants entering the market and weak banks not exiting. Some of the existing competitors in the euro area operate under a non-profit charter, which reduces the market-based incentives to tackle overcapacity (Andreeva et al. 2019). Among non-bank competitors, challenges are generated by Fin-Tech and Big-Tech firms.[3] With a focus on Fin-Tech lenders in the US, Buchak et al. (2018) document that traditional deposit-taking banks facing increased capital and regulatory burden retreated from residential mortgage lending, and that shadow banks stepped into this gap. A reallocation to lightly regulated nonbanks has also occurred in the US corporate loan market. This reallocation had important spillovers: during the 2008 crisis, loans funded by nonbanks with fragile liabilities were less likely to be rolled over and experienced greater price volatility (Irani et al., 2018).

To summarize the main findings above, bank profitability is affected by macro and micro factors. Among bank specific determinants, asset quality and cost efficiency play a predominant role. Macro factors are less relevant and evidence is not always consistent across studies. As for the role played by recent accommodative policy measures, short-term rate reduction does not have produced (or not produced yet) statistically significant effects on bank net income, although it has determined some opposite effects on its components (namely, net interest income and provisions). This may explain the small impact of short-term rate reduction on net income. Studies on the long-term effect of LIRE are more controversial. One reason is that direct (negative) effects on bank balance sheet might be offset by indirect (more benign) effects that derive from improved macro conditions. Some of these effects can be either amplified or mitigated depending on bank business models. Under certain conditions (negative interest rates that banks will not pass on to their depositors), for example, a remarkable reliance on core deposits may be detrimental to bank performance and also lead to excessive risk taking. Moreover, even within the same business model, a different intensity asset-liability composition and maturity transformation can expose otherwise similar banks to different risks. Structural features of the banking industry are also relevant. Overcapacity in the industry, in particular, threatens bank performance in several manners and influences the way bank business models will evolve in the future.

[3] See Petralia et al. (2019) for a comprehensive analysis of competition from Fin-Tech and Big-Tech in the banking industry.

3. RECONCILING LITERATURE FINDINGS AND SUPERVISORY REVIEW RESULTS

3.1. Are results comparable and consistent?

The aim of this section is to understand whether and to which extent the evidence emerged from the review is in line with the findings from academic studies on bank profitability.

We look at the review outcome through the lenses of the results emerged from the above mentioned studies. The following points emerge:

- Generally speaking, requiring banks to put efforts in solving NPL issue and optimizing cost structure is consistent with empirical findings showing that poor asset quality and cost inefficiency are the most relevant bank specific factors associated with low profitability.
- Limited empirical evidence on the impact of low interest rates on banks' NII is consistent with the conclusion in the review that several banks have undertaken compensation strategies, i.e., by expanding lending volumes to offset the interest margin reduction effects.
- Effective revenue diversification by increasing (or switching to) fees and commissions is a viable strategy only for limited banks (mainly universal banks operating in the asset management industry). The limited empirical evidence on the positive role played by non-interest income to the overall profitability is consistent with this outcome.
- Differences in business models and asset - liabilities composition are remarkable and may explain heterogeneous reaction to the same factors (including monetary policy actions). Assessing and challenging banks' ability to steer profitability and strategy to, e.g., changes in environment conditions is therefore relevant also in light of the empirical findings. This also calls into question the quality of risk management and its involvement in the formulation of the strategy (e.g., asset-liability management techniques to manage interest risk stemming from funding structure and maturity mismatching).
- Some studies point to potential excessive risk taking favoured by LIRE also at smaller banks with a large base of traditional funding. Supervisors have indeed identified signs of pressure to reach for yield stemming from bank's strategies.
- Market concentration is not uniform across euro area countries, as some markets remain fragmented. Encouraging consolidation in domestic as well as foreign markets may be desirable to some extent. Contrary to prior studies, recent empirical evidence shows that banks can still exploit economies of scale, because, for example, large IT investments entail remarkable fixed costs. This represents yet another incentive for industry consolidation that, however, has to be stimulated having in mind the numerous implications of overcapacity in the industry. The emergence of too-big-too fail problems is an example of side effects associated with bank consolidation via M&A.
- More generally, overcapacity is a multifaceted issue that not only affects single banks' performance, but also has implications on growth, financial stability, and social welfare. Supervisory expectations on more efficient loan pricing are consistent with some of the issues raised by overcapacities, i.e., excessive price competition.

3.2. Are supervisory expectations conclusive and exhaustive?

In this section we provide comments on supervisory responses. We aim to shed lights on aspects that may deserve closer analysis and/or more incisive actions from supervisors and policy makers.
One point that emerges from the review is that there is no one-size-fits all approach to profitability even among similar banks. Top performers are diverse by size, business model, and country of origin. The idiosyncratic component is therefore an important factor explaining differences among banks'

performance. Not surprisingly, in light of this across-banks and within-business-model heterogeneity, even among top performers the level of profitability varies remarkably (with an average RoE ranging from 6 to 15%).

Nevertheless, despite the progress made, bank profitability remains lower than pre-crisis years and below that of international peers. A corollary is that a large share of euro area banks is not delivering the returns required by investors i.e., for listed banks, the book-to-value ratio is below one, indicating that those banks are *de facto* destroying value.

Against this background, two questions need to be addressed: Which level of profitability is desirable from a financial stability perspective? How sustainable this will be in the medium-term?

- <u>What is the viable level of bank profitability</u>. Comparing bank profitability in the pre-post crisis years is an interesting exercise that may not be conceptually correct due to the profound changes occurred in the industry since then. It is well known that in the pre-crisis years banks had a more aggressive risk-return profile, were more leveraged, and regulatory constraints were less binding. In addition, the macroeconomic scenario was different, with interest rates being positive and economic growth being sustained. Realistic medium-term RoE should acknowledge these facts and the current gap between cost of equity and RoE could be closed not only by the RoE components but also via reduced expected returns.
- <u>How to reach sustainable profitability</u>. Progress made by banks over the last three years are not necessarily replicable in the following years, especially for weakest firms.
    - o Enhancing return via cross-selling may be not sustainable for long, as a certain number of current customers may have been already saturated. Putting pressure on diversification and fee generating may also incentivize traditional lenders with limited presence in the asset management industry to gain fees on traditional lending and supply of payment services by charging clients on basic operations and products that in the past were provided for free. This attitude can undermine the bank-client relationship to an extent that is unpredictable. However, such a shift towards different sources of income is likely to be gradual and is also dependent on the rate of development of capital markets as well as on competition both within and from outside the banking sector (e.g. from Fin-Tech companies). To raise opportunities emerging from capital market and exploiting complementarities, enhancing integration across capital markets becomes crucial.
    - o An important profitability driver in recent years was lower provisioning, reflecting the ongoing reduction in NPLs and better economic conditions. However, historical data suggest that impairments are now at a level where there is little room for further improvement (ECB, 2019b). In the coming years, banks will no longer be able to rely on lower impairment levels to improve profitability. On the contrary, recent economic developments and higher risk taking in the lending business suggest that it may be prudent for them to have higher provisions. By their nature, impairments are volatile, and NPLs disposal generating large one-off charges can change the picture.
    - o Achieving cost efficiency is important and a further shift away from physical branches to digital banking may reoffer a permanent cost-saving opportunity for banks. It remains however that often banks are reluctant to cut down the branch network, because this is a costly strategy requiring large investments and entailing specific, new risks as well as organizational and governance challenges that not all banks are able or willing to face (Barbagallo, 2019). Besides, there are structural differences at country level that may slow down banks progress in this area, as, e.g., local labour laws and the strength of employment protection, or the speed of digital transformation that depends on degree of IT sophistication (Andersson et al., 2018).

3.3. Supervisory incentives and banks' behaviour

A further consideration deals with the incentive mechanisms that supervisors aim to provide to banks. It is clear that banks are facing a deep transformation. While several business models exist, it remains that the *uniqueness* of banks, their specialness as information providers rely on the traditional model of taking deposits and making loans. This paradigm entails risk taking as well as maturity, liquidity and risk transformation. Will this model survive? Do supervisors want it to survive?
Addressing these questions is important in light of the fact that some supervisory actions appear to some extent contradictory if considered against the goal of preserving the traditional function provided by banks within the economy.

In fact, the system of constraints and monitoring tools to comply with is as such that some banks may be reluctant to undertake actions or seize business opportunities, if these entail closer scrutiny or increased requirements. Correctly, the review on profitability attributes great importance to banks' ability to steer strategy in a complex and mutable environment. However, anecdotal evidence points to the fact that increasing compliance duties may deviate senior managers from making strategical planning (Bruno and Carletti, 2019). The ECB also is aware of the fact that demanding regulation and supervision may not only challenge banks' profitability, but also impose risks "such as banks failing to adapt on time or postponing strategic decisions or investments" (ECB, 2019c). We expand on some of these potential unintended consequences.

- While excessive risk taking is undesirable *per se*, requirements curbing risk taking behaviour have some potential drawbacks. For example, they may provide the distorted incentives of reducing exposures to counterparties that, in the past, were traditionally financed by banks. In this respect, recent evidence shows that banks have stepped back from medium to sized enterprises with longer term financial needs, while private debt funds have emerged to fill the gap, by providing customised and longer-term facilities.[4] Or, banks might have little incentives to provide funds to "unlikely to pay" borrowers, as new funds would mechanically increase the stock of NPLs, even if providing fresh resources might be the proper strategy to favour the recovery of the troubled borrowers (Bruno and Carletti, 2019). Similarly, the emergence of non-bank transaction service providers with extended financial resources, large availability of customer-based information and technology to treat this information effectively and efficiently, represent a concrete threat to banks, especially in consideration of the fact that these new lenders operate under limited regulatory pressure. Similar threats may emerge from non-bank, lightly regulated lenders in other segment of the industry, including corporate lending. The extent to which the banking business would remain special is therefore hard to say.
- Many of the criticisms that emerged from the review are accentuated by overcapacities issues. Yet, there are different dimensions of overcapacity (i.e., size, competition, and infrastructure) requiring a multi-layered approach where both individual banks and policymakers are required to play a role. For example, banks may find it difficult to consolidate cross border due to the uncertainty of the authorization process, or because they are afraid that the process will lead

[4] Banks have curtailed lending to middle market companies following decades of consolidation in the sector and in response to higher capital charges. Nonbank asset managers are filling the void with direct senior loans to middle market companies that have offered investors both higher yield and lower default risk in exchange for illiquidity. Davis et al. (2018).

to excessive capital raise, thus reducing the potential savings of consolidation.[5] National rules, e.g. related to liquidity and capital requirements for subsidiaries, may also act as a disincentive to cross-border consolidation. On the contrary, in order to be efficient, cross-border banks need to conduct liquidity and capital management at the consolidated level, and to face as few national options as possible (Andreeva et al., 2019). Market exit is another option to mitigate overcapacities issues, an option, however, that is taken into consideration with great caution due to the potential negative externalities of bank failures for financial and economic stability. Strengthening the institutional framework of banking resolution is important to make this option viable.

To summarize, in order for senior managers to adjust their strategy promptly and effectively, unnecessary requirements should be clearly avoided. Moreover, it is important that supervisors recognise and manage the 'unintended consequences' of their actions. A way to do so is by designing an incentive mechanism that rewards good behaviours in a transparent and predictable way. This would encourage banks to take certain strategic initiatives, although costly. It is also important that policy makers face the overcapacity problems in the industry more fiercely.

More generally, it is important to complement banks' actions with additional initiatives at the institutional level in order to strengthen the environment where banks operate. The pace of adjustments is likely to vary across banks and countries, but it can be accelerated with authorities playing a more active role in addressing structural inefficiencies at the institutional level. Banks' efforts to adjust business models along the avenues depicted above will be facilitated if a single deposit insurance scheme were established, the capital market union advanced, and non-harmonised national options were removed. Ultimately, the euro area economy needs banks that are large and efficient enough to operate within a pan-European market, but small enough to be resolved with the resources of the Single Resolution Fund. This would help exploit the full benefits of the banking union and improve the trade-off between financial stability and economic efficiency (Andersson et al., 2018).

[5] Anecdotal evidence and qualitative research is instead more conclusive and report that some aspects of the current supervisory approach could create unnecessary obstacles to the emergence of pan-European banks (Shoenmaker and Véron, 2016). In a survey carried out by the EBA, banks find that the cost and riskiness of M&A are the main obstacles to initiate such transactions (EBA, 2018).

4. CONCLUSIONS

European banks have suffered from prolonged scarce profitability. This is relevant from a financial stability perspective because scarce profitability reduces banks' ability to generate additional capital and give incentives to excessive risk taking. To understand banks' current and prospective position in this respect, the SSM carried out in 2016-2018 a review on drivers of profitability and business models at significant institutions in the euro area. Profitability and business models have been assessed by examining several dimensions based of the main components (revenues and expenses) of net income.

The main conclusion of the SSM review is that there is no "one-size-fits-all" strategy to achieve viable profitability, this reflecting the cross-sectional heterogeneity of reviewed banks. Independently on the strategy, however, banks with above average profitability were those with good governance, strategic steering and risk management capabilities.

Indeed, banks in the euro are have been facing multiple challenges, ranging from high NPLs, a prolonged low interest rate environment, and increased competition from non-bank firms that are expanding in the most traditional banking businesses.

Banks have already taken actions to enhance profitability via either reducing cost or enhancing revenues, but the room for manoeuvre in the future does not seem to be ample. Supervisors and policy makers can take further initiatives to fix some structural inefficiencies and provide better conditions for banks to enhance profitability.

These concerted actions would help to reduce the gap between banks' RoE and cost-of-equity. This needs to be closed not only by requiring banks to adjust RoE but also by fostering investors' confidence, so as to realign their expectations to more viable levels of profitability.

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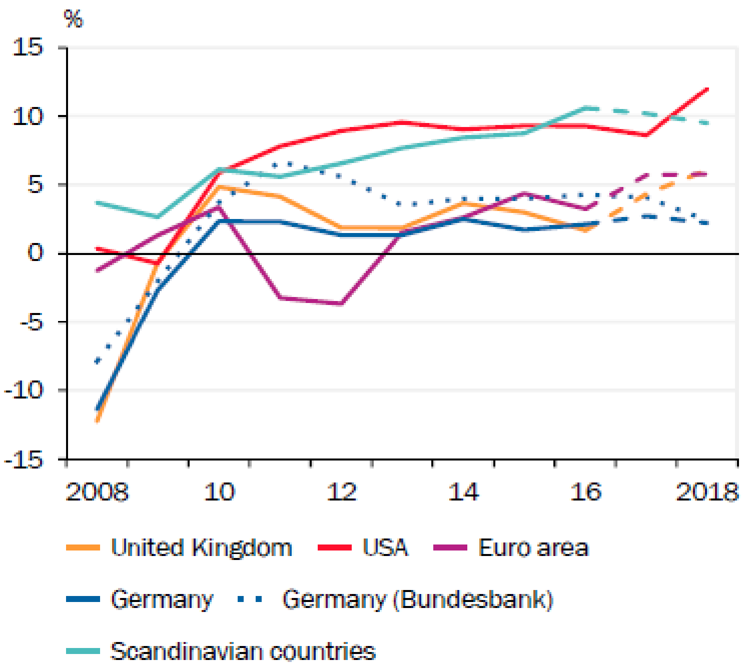
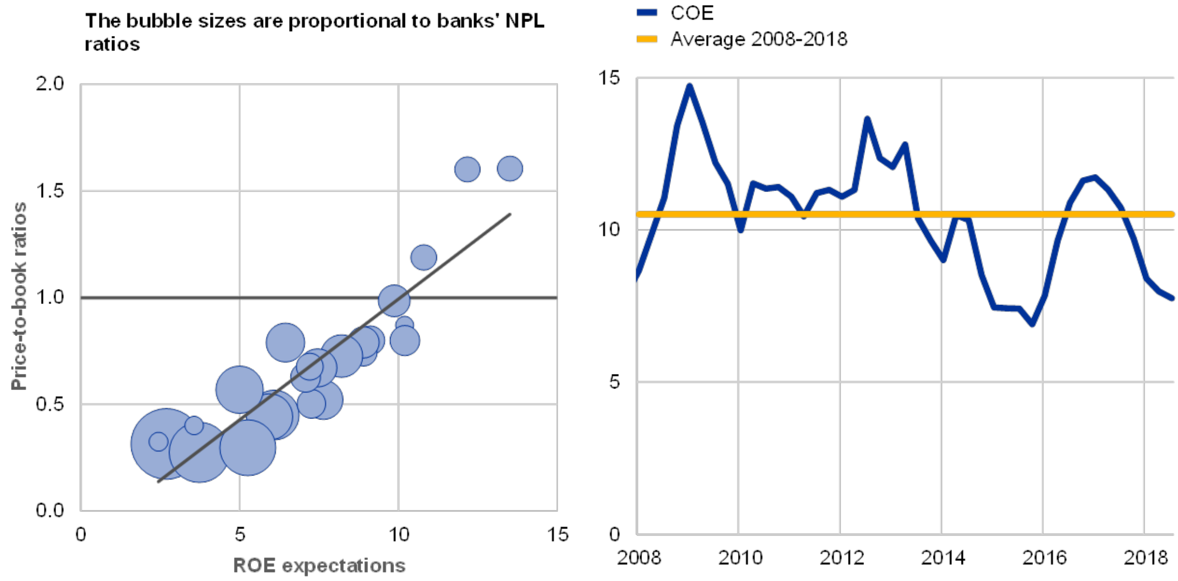
ANNEX

Figure 1: Bank RoE: international comparison



Source: GCEE (2019).

Figure 2: Bank profitability and Cost of Equity



Source: Andersson et al. (2018).

Figure 3: Timeline of the SSM's thematic review of profitability and business models

2016-17

Development of the supervisory toolkit to assess profitability and business model, ensuring the application of a consistent approach by JSTs

2017

Bank-by-bank assessment to screen different aspects of business model, from core capacity to generate revenues to ability to steer activities and implement strategies.

Horizontal review to ensure consistent and homogeneous application of assessment criteria

By February, 2018

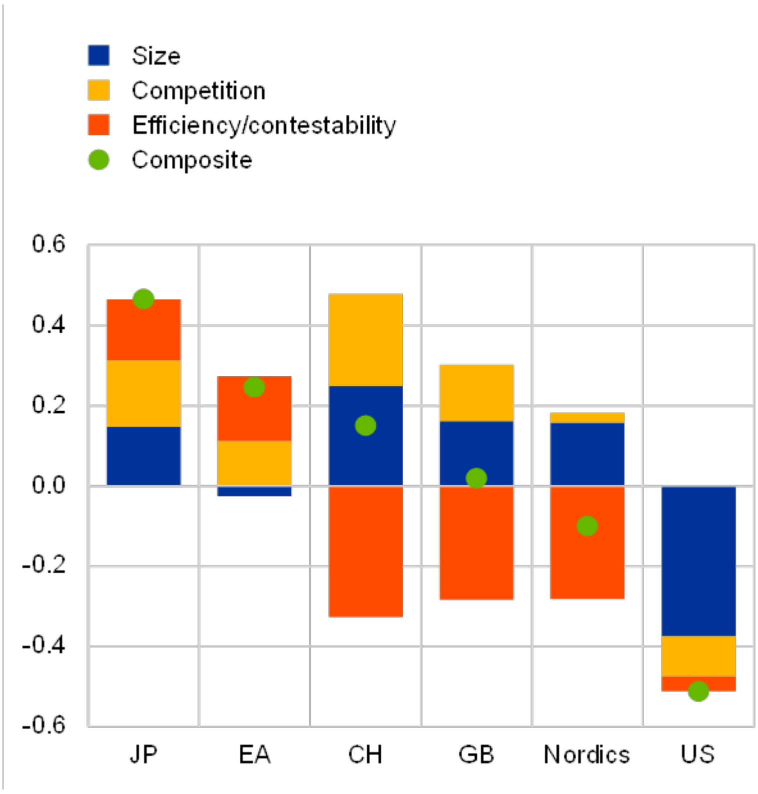
Supervisory dialogue where process vulnerabilities are brought to banks' attention

By April, 2018

Key conclusions are communicate to the SIs

Source: Authors' elaboration

Figure 4: Overcapacity indicators and its components: international comparison



Source: Andreeva et al. (2014).

Table 1: Dimensions of overcapacity and related variables

Dimension	Indicator	Selected literature	Unite of measurement
Size	Bank assets/total financial sector assets	BIS (2018)	percentage
	Total assets/GDP	ESRB (2014), Kakes and Nijskens (2018)	percentage
	Loans to the private sector/GDP	Arcand et al. (2012)	percentage
	Total assets/capital and reserves	Haldane et al. (2010), Langfield and Pagano (2015)	ratio
Competition	Net interest margin	Demirgüç-Kunt and Huizinga (1999), Sahay et al. (2015)	percentage
	No. of banks per 100,000 inhabitants	Rockoff (1974)	absolute figure
	Concentration ratio (CR5)	Gropp and Kok (2017)	percentage
	Return on assets (ROA)	Berger (1995), Sahay et al. (2015)	percentage
Infrastructure/ efficiency	Number of inhabitants per bank branch	Cihak et al. (2012), Beck and Casu (2016)	absolute figure
	Customer deposits per bank branch	Hirtle (2007), Martín-Oliver et al. (2014), IMF (2017)	EUR millions
	Total assets per bank employee	Beck and Casu (2016)	EUR millions
	No. of card transactions per 100,000 inhabitants	Berger (2003)	absolute figure

Source: Gardó and Klaus (2019).

There is no "one-size-fits-all" strategy to achieve viable profitability, but all banks need good strategic steering and risk management capabilities to adjust their business mix to changes in the operating environment. Banks have already taken actions to enhance profitability and the room of manoeuvre for the future is not that ample. Policy makers can take further initiatives to fix structural inefficiencies and provide better conditions for banks to enhance profitability. These concerted actions would help reduce the gap between banks' return on equity and cost of equity.
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