BANKING

European Banking Study

NAVIGATING THE ROAD AHEAD – MARKET TRENDS & STRATEGIC OPTIONS FOR EUROPEAN BANKS

2018

MANAGEMENT SUMMARY

The current banking landscape shows that banks are operating in unstable market conditions fuelled by unsustainable profit-taking, crisis level valuations and dwindling market share. While the majority of the top 50 European banks exceeded the market's average capital requirement in 2017, only eight also managed to achieve profitability greater than the cost of equity. Capital markets have gained momentum, but most bank valuations are at crisis levels with massive spreads between banks' price-to-book ratios and the market.

While profitability (RoE) has improved throughout 2017 (from 3.9% to 7.1%), zeb believes that the ability for banks to repeat these gains in the coming years is highly unlikely. Profit improvements from non-litigation and extraordinary costs have allowed net profits to surge, but it is hiding the fact that maintaining sustainable recurring profits will be nearly impossible.

Banks are also losing market share to other financial intermediaries including shadow banks and non-banks. These intermediaries now hold almost half of the assets in the European financial sector moving from 22% in 2008 to 48% in 2017. Add in insurers and pension funds, and this share of what were bank assets increases to 63%. While profit results may look positive, they are, for most institutions, superficial and hide the reality. With unsustainable profit-taking and non-banks continuing to gain market share, banks have built profits on a windfall situation. The time has now come to shift towards operational improvements and to decouple those aspects of the value chain that no longer enhance value for customers.

A decade after the banking crisis, the industry has now reached a tipping point and banks urgently need to switch from "recovery mode" to "action mode".

This study outlines four strategic options banks can choose to combat market conditions and produce value with true differentiation. They include: pursuing M&A, focusing on product specialisation, breaking up the value chain and participating in financial ecosystems or platforms.

We foresee that top performing banks will be those who are most capable of selecting a path of true differentiation while simplifying and standardising the rest.

For further insights, beyond the European Banking Study 2018, additional perspectives and quantitative analyses regarding each of these trends can be found in featured zeb deep-dive studies listed at the end of this report.

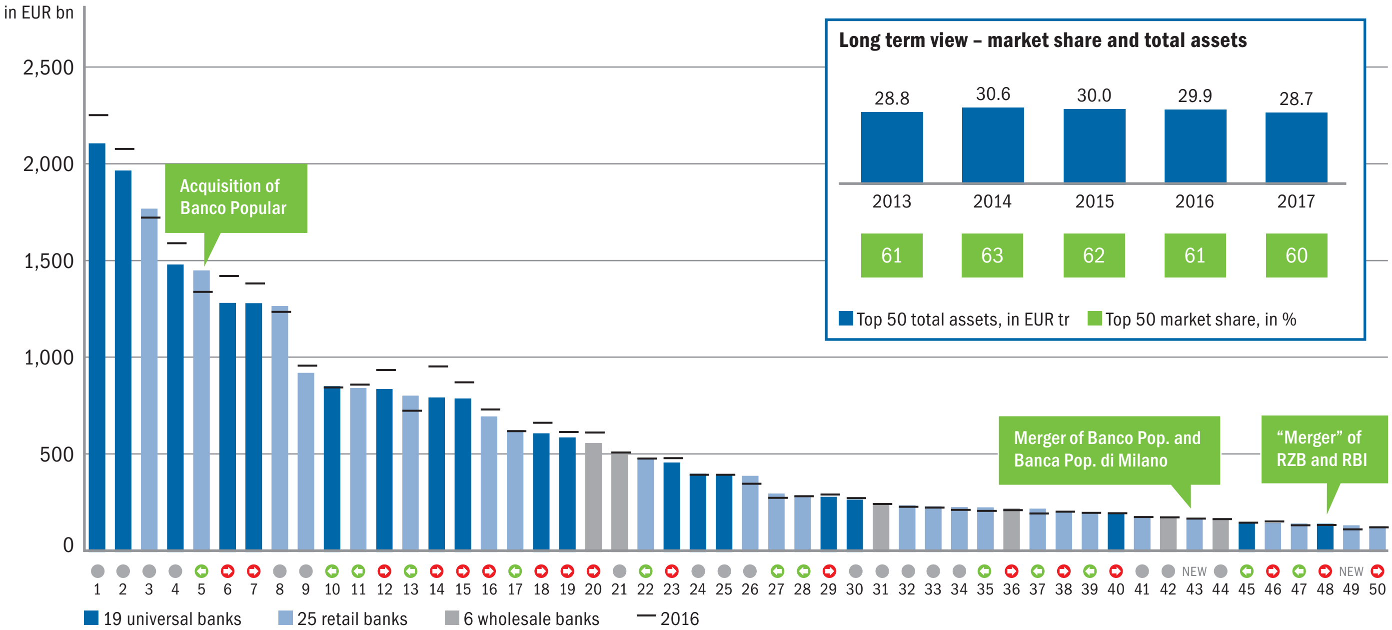
TABLE OF FIGURES

CONTENTS

1. CONTINUING LACK OF PROFITABILITY, VALUATIONS AT CRISIS LEVELS AND A DWINDLING LOSS OF MARKET SHARE

Some changes and, finally, decreasing assets among top 50 European banks

The year 2017 brought a number of changes to the 50 largest European banks in terms of total assets. The industry witnessed some M&A activity, such as the acquisition of the Spanish Banco Popular by Banco Santander[1], elevating them to fifth place in the European rankings, and the merger between the Italian banks Banco Popolare and Banca Popolare di Milano, putting them firmly back among the top 50 European players. At the same time, most large banks saw their assets substantially decrease compared to the previous year. Changes in the rankings were seen particularly within ranks 5 to 20, while ranks 1 to 4 remained unchanged compared to 2016 (see Figure 1). Despite increasing rumours about M&As between large players in Europe, these deals have still not happened. Looking ahead, we expect to see at least one or two deals between top 50 European banks within the next few years – but not many more due to reasons we will lay out in the second chapter.



1. HSBC Holdings Plc (HSBC)
2. BNP Paribas (BNP)
3. Crédit Agricole Group (CA)
4. Deutsche Bank AG (DB)
5. Banco Santander SA (SAN)
6. Barclays Plc (BAR)
7. Société Générale SA (SocGen)
8. BPCE Group (BPCE)
9. Lloyds Banking Group Plc (Lloyds)
10. ING Group N.V. (ING)
11. UniCredit S.p.A. (UniCr)
12. RBS Group Plc (RBS)
13. Intesa Sanpaolo S.p.A. (ISP)
14. Credit Suisse Group AG (CS)
15. UBS Group AG (UBS)
16. BBVA SA (BBVA)
17. Fédération du Crédit Mutuel (CM)
18. Coöperatieve Rabobank U.A. (Rabo)
19. Nordea Bank AB (Nordea)
20. Standard Chartered Plc (STAN)
21. DZ Bank AG (DZ)
22. Danske Bank A/S (Danske)
23. Commerzbank AG (CBK)
24. ABN AMRO Group NV (ABN)
25. Sberbank of Russia OAO (Sberb)
26. Caixabank SA (Caixa)
27. KBC Group NV (KBC)
28. Svenska Handelsbanken (SHB)
29. DnB ASA (DNB)
30. SEB AB (SEB)
31. LBBW (LBBW)
32. La Banque Postale (LBP)
33. Swedbank AB (Swed)
34. Banco de Sabadell SA (Saba)
35. Erste Group Bank AG (Erste)
36. Bayerische Landesbank (BayLB)
37. Bankia S.A. (Bankia)
38. Raiffeisen Schweiz (Raiff CH)
39. Nykredit Realkredit A/S (Nykr)
40. JSC VTB Bank (VTB)
41. Belfius Banque SA/NV (Bel)
42. NORD/LB (NORD/LB)
43. Banco BPM S.p.A. (BPM)
44. Helaba (Helaba)
45. Zürcher Kantonalbank (ZKB)
46. Banca Monte dei P. di S. S.p.A. (BMPS)
47. OP-Pohjola Group (OP)
48. RZB Group (RZB)
49. Unione di Banche Italiane (UBI)
50. Bank of Ireland (BoI)

1) Imposed by the Spanish government
2) Sample contains the 50 largest European banks by latest stated total assets, for 2017, all figures are based on full year numbers; Europe includes the 28 countries of the European Union, Norway, Russian Federation, Switzerland, Turkey.

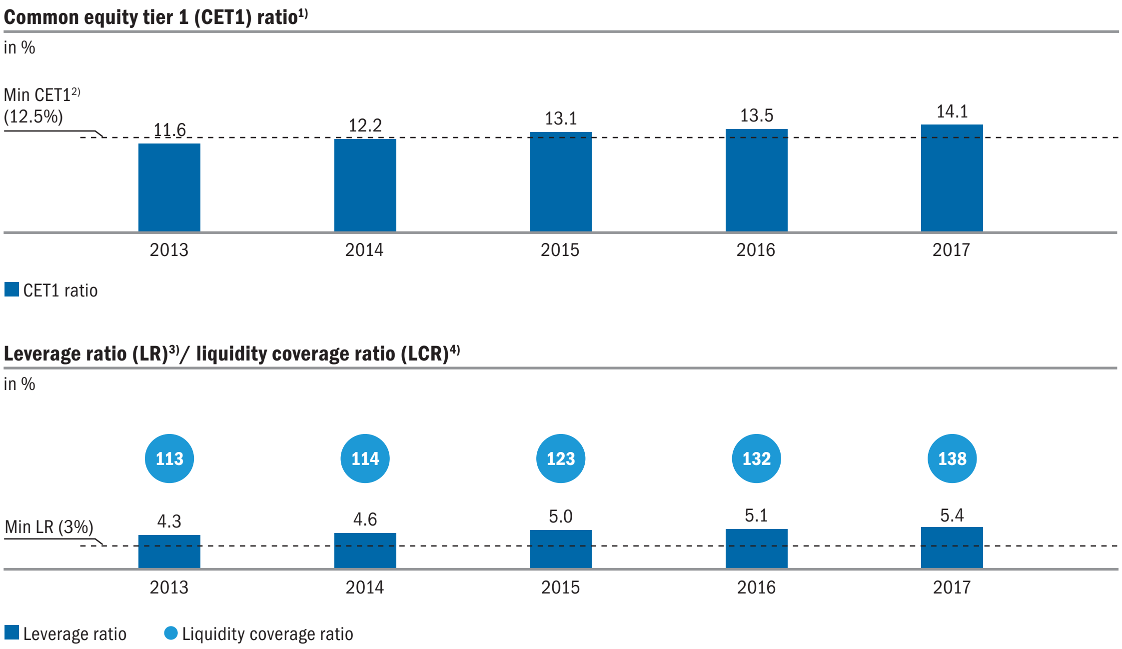
Source: company reports, European Banking Federation, ECB, FitchConnect, zeb.research.

Figure 1: 50 largest European banks by total assets in 2017[2)]

While capital ratios now exceed minimum requirements, banks' profits remain at historically low levels

At first glance, the current performance of the top 50 European banks seems comforting. Ten years after the financial crisis, European banks appear to be in their most resilient position ever and with the finalisation of the post-crisis reforms of Basel III, the regulatory agenda is fixed. Banks will need to fully adopt the "Basel IV" rules – which bring revisions of the credit risk, securitisation, operational risk and market risk frameworks, and an implementation of an output floor, amongst others, by 2027. This is to say, an extensive regulatory agenda remains. However, no fundamental shifting of the goalposts is expected any time soon.

Regulatory pressure has led to exceptional common equity tier 1 (CET1) and leverage ratios at financial institutions. At the end of 2017, the top 50 European banks achieved an average transitional CET1 ratio of 14.1 percent, well above the average of market's capital requirements of approximately 12.5 percent. This represents a further improvement on the banks' 2016 figure, which was already 13.5 percent. This same development is observed with regard to the leverage ratio, which was 5.4 percent in 2017 – well above the minimum rate of 3.0 percent. Also, the liquidity coverage ratio was 138 percent based on the latest reported figures, up from 132 percent in 2016, indicating excess liquidity in the system. The evolution of these figures is shown in Figure 2.



1) CET1 ratio: CET1 capital to risk-weighted assets; 2014/15/16/17: transitional CET1 ratio, 2013: tier 1 ratio
2) Est. market avg., individual req. for each bank; avg. consists of 4.5% Pillar 1 req. + 2.5% capital conservation buffer + 1.0% avg. countercyclical buffer + 1.0% avg. systemic buffers (incl. G-SIB, syst. buffer) + 2.0% avg. SREP surcharge + 1.5% "manoeuvring" buffer
3) Based on reported figures, estimated if not available, see appendix for details
4) Based on reported figures

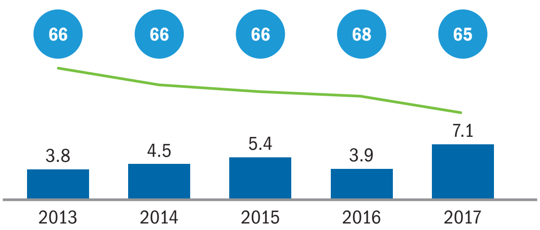
Source: company reports, FitchConnect, zeb.research.

Figure 2: Evolution of capital and liquidity in the top 50 European banks

However, banks are aware of the underlying problems just beneath the surface. European financial institutions are still suffering from substantial lack of sustainable profitability compared to their major counterparts in the United States or China. In 2017, top 50 European banks achieved a post-tax return on equity (RoE) of 7.1 percent, which is an improvement compared to 3.9 percent in 2016 but still below the cost of equity. Moreover, the increase in banks' RoE is largely the result of significantly lowered litigation costs (getting back to normal), all-time lows with regard to loan loss provisions and declining extraordinary losses, e.g. from discontinued operations or restructuring efforts. Together, these factors contributed to an estimated effect of EUR 66.8 billion between 2013 and 2017 and thus explain most of the positive development. But they are one-offs that banks cannot rely on year-over-year. During the same period, operating results fell by EUR 3.5 billion, indicating that no sustainable improvement had taken place in operational performance. This makes repeat gains from one-offs which are already at extremely low levels simply unsustainable and will force banks to look to operational improvements for any future profitability gains (see Figure 3). Overall, the operational and business improvements achieved in the past few years have not been drastic or substantive enough to counterbalance increasing costs, e.g. higher regulatory costs, IT expenses or rising wages.

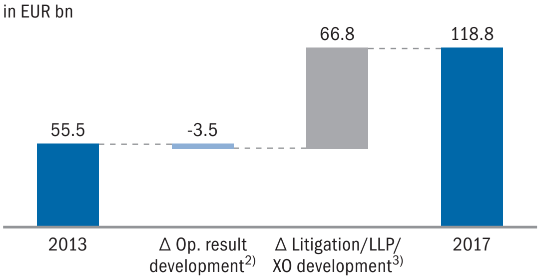
Post-tax return on equity / cost of equity / cost-income ratio[1)]

in %



Post-tax profit development

in EUR bn



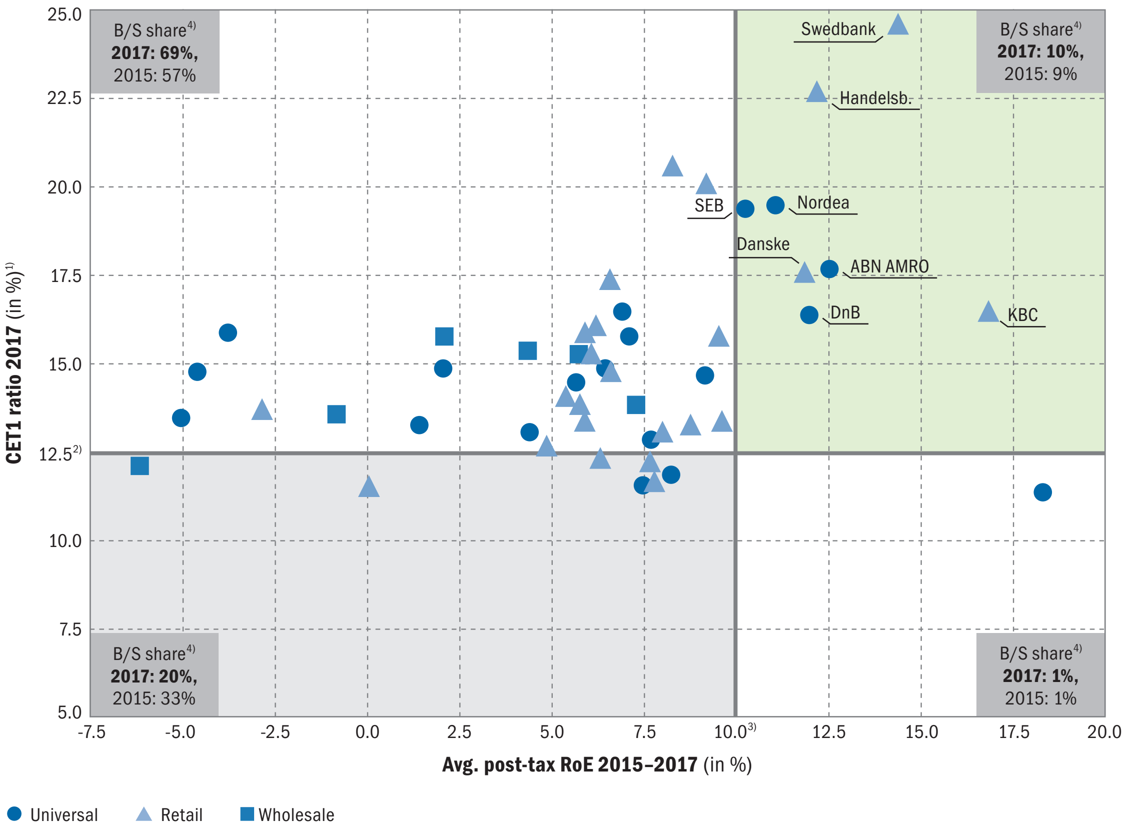
Post-tax RoE   CoE   CIR

1) Post-tax return on equity (RoE): post-tax profit to avg. total equity, cost of equity (CoE): 10-year moving average of European 10-year gov. bonds as risk-free rate plus risk premium of 5.5% multiplied by banks' individual beta; cost-income ratio (CIR): operating expenses to total earnings
2) Includes total operating earnings and operating exp.
3) Litigation costs, loan loss provisions (LLPs), extraord. result and profit/loss from discontinued operations (XO result) and tax.

Source: Bloomberg, FitchConnect, zeb.research.

Figure 3: Profit after tax and other KPIs of top 50 European banks

The result is a mixed picture. Most banks exceed the capital requirements currently expected by markets, investors and regulators. But they still lack sustainable profitability – a matter of fundamental importance. In our examination of the top 50 European banks, we identify only eight banks that managed to achieve both targets, demonstrating average post-tax RoE in 2015–2017 of ten percent or over (the average cost of equity) and a CET1 ratio in 2017 above the average market's requirement of 12.5 percent. Of the eight, four were retail banks – Swedbank, Svenska Handelsbanken, Danske Bank and KBC – and four were universal banks – Nordea Bank, SEB Bank, ABN AMRO and DNB. The remaining 42 players generally performed adequately with regard to capital requirements but failed to make the grade on profitability (Figure 4).



1) Transitional CET1 ratio, figure without Banca M. d. P. di S. (RoE: -25.5%, CET1 ratio: 14.8%)
2) Estimated market average, individual requirements for each bank; average consists of 4.5% Pillar 1 req. + 2.5% cap. conserv. buffer + 1.0% avg. countercyclical buffer + 1.0% avg. systemic buffers (incl. G-SIB, systemic risk buffer) + 2.0% avg. SREP surcharge + 1.5% "manoeuvring" buffer
3) Average cost of equity
4) Percentage of total assets held by banks in each quadrant.

Source: FitchConnect, reports, zeb.research.

Figure 4: Ability of top 50 European banks to meet capital requirements and achieve profitability

Simulated projections of CET1 and ROE generate a call for action

One core element of our European Banking Study is always the extensive simulation exercise to project the financial performance and capital resilience of the top 50 European banks five years into the future given the current yield and regulatory environment. For the first time, we have included high-level assumptions as to the impact of Brexit. Using zeb's proprietary balance sheet and P&L model, we can simulate the expected impact of low yields, an ongoing benign credit environment and the most important regulatory initiatives on banks' most relevant key performance indicators (KPIs).

For this purpose, we have uploaded all publicly available information for each of the top 50 European banks into our model and applied assumptions and interdependencies to develop an outlook until 2022. Unlike other forecasts, we project each bank's results without major operational changes or improvements. This provides us with a baseline scenario that helps determine whether substantial management action is necessary or whether a simple improvement in some of the environmental factors – such as the yield curve for instance – can help alleviate the situation. Taking all relevant interdependencies between profits, costs, assets, liquidity and capital into account allows us to model the future development of the relevant KPIs. Whilst we have modelled not only post-tax return on equity and CET1 ratios but also leverage ratios, risk density, CIR, etc., we will focus on the first two main KPIs. Upon request we are happy to show the impact on each of the 50 institutions from our sample.

Since we use individual data and assumptions for each bank, leading to individual impacts and effects, we have been able to compare these results with selected banks' results for the sake of proving the robustness and validity of the results. Also, given that we are in the fifth year of applying this methodology, we can back test our assumptions and hypotheses against reality as it has turned out. Both model tests show that our simulation provides robust and accurate figures that seem to describe the situation for the largest European banks on average. You will find further details and information on our simulation in the appendix.

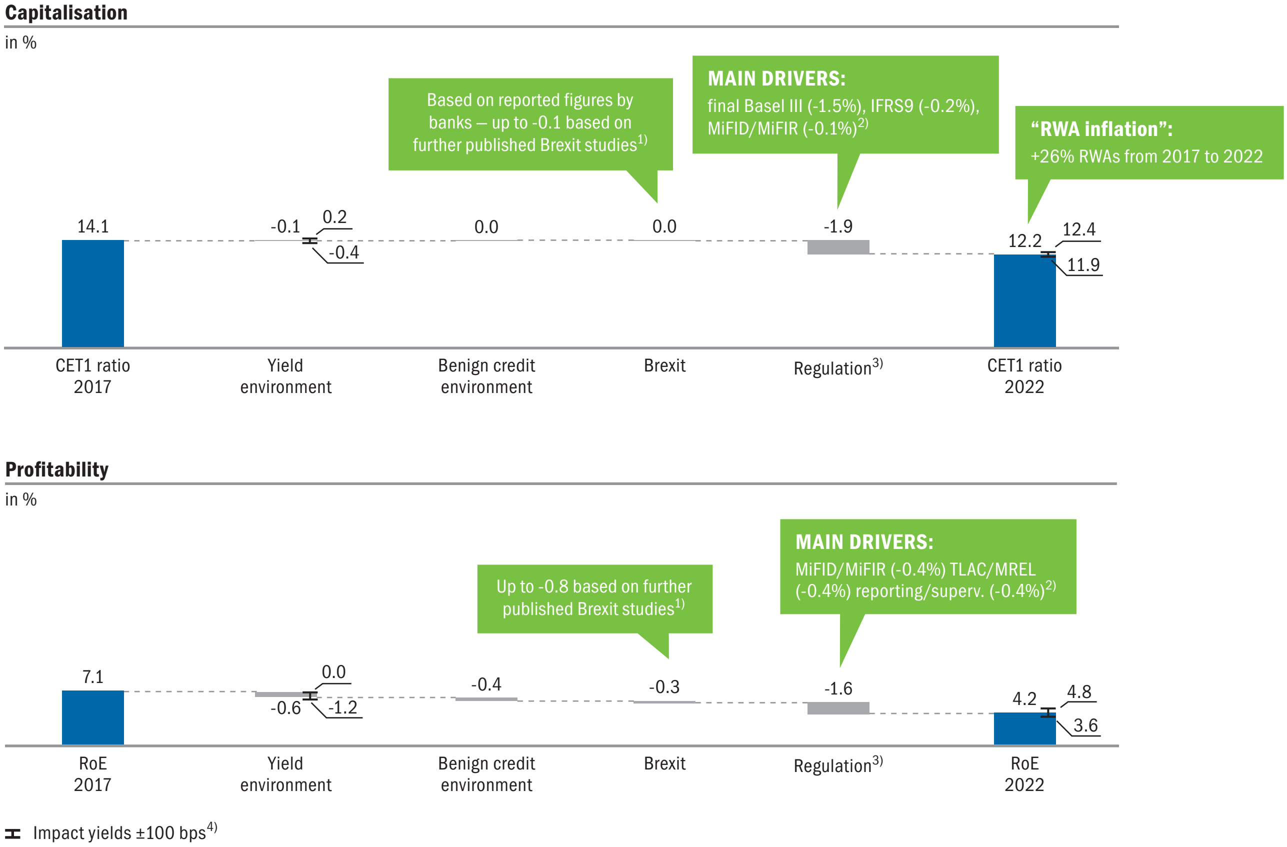
Figure 5 shows the results of our simulation for our sample of the top 50 European banks, assuming no management action is taken in the period up to 2022.

The results are staggering. The final implementation of pending regulatory initiatives will decrease CET1 ratios to a mere 12.2 percent. While this is generally in line with minimum requirements and substantially better than the expected capital gap in previous years, European banks will still lack a comfortable capital cushion that would allow them to embark on aggressive growth strategies. The reason for the less than drastic CET1 decline as compared to last year is due to the fact that regulations have been adjusted significantly during the past 18 months. Studies like this one and similar initiatives from the industry have certainly helped to provide regulators with a comprehensive picture of the overall situation and may have influenced regulatory bodies in reconsidering some of their parametrisations. More problematic than the reduction in the CET1 ratio, however, is the downward trend of the post-tax RoE, which – certainly from an investor's point of view – is a significant marker as to whether a bank or an industry is sustainable in the mid- to long-term future – given a robust level of risk as extemporised by the CET1 ratio for example.

Upon collectively reviewing the normalisation of the credit environment, the very conservative cost estimates for Brexit and the implementation costs for the pending regulatory initiatives, banks would have to raise their profitability levels by an additional 2.3 percentage points only to stay on par with last year's level of 7.1 percent (which was also well below the cost of capital). The low yield environment has now eroded banks' pricing and re-pricing schemes, making it less of an additional problem for the future. Many banks have adapted to it and their models are now fully aligned. However, there is a flipside to this situation.

It has taken about five years for the low yield environment to be fully mirrored in banks' balance sheets and products. Similarly, it will also take time until the positive effects of increasing yields will make inroads into banks' profitability. Using publicly available data for interest rate sensitivity, we find that even an increase of the yield curve of about 100 basis points will not help banks to reach their 2016 RoE levels again.

Taken together, these effects lead us to believe that European banks are reaching a tipping point. The time for immediate fire-fighting and significant capital improvements is over. It is now time to develop sustainable business and operating models for the future. Our simulation results show clearly that even in a positive market environment with increasing yields, banks cannot simply adopt a "wait and see" approach.



1) Based on reported figures/calculations from other published Brexit studies
2) Remaining capitalisation drivers: reg. rep./supervision (-0.1%), other approx. zero; profitability: final Basel III (-0.3%), ring-fencing UK/US (-0.2%), other approx. zero
3) Incl. MiFID/MiFIR, TLAC/MREL, ring-fencing UK/US, final Basel III calc. fully phased-in (incl. Rev. SA/IRBA, SA-CCR, CVA, SEC, FRTB and rev. SA op. risk), IFRS 9, regulatory reporting and supervision (incl. AnaCredit and new disclosure requirements, stress test and SREP)
4) Estimated impact of a short-term, parallel shift of the yield curve by +/- 100 bp based on banks' reported net interest income sensitivities

Source: zeb.research.

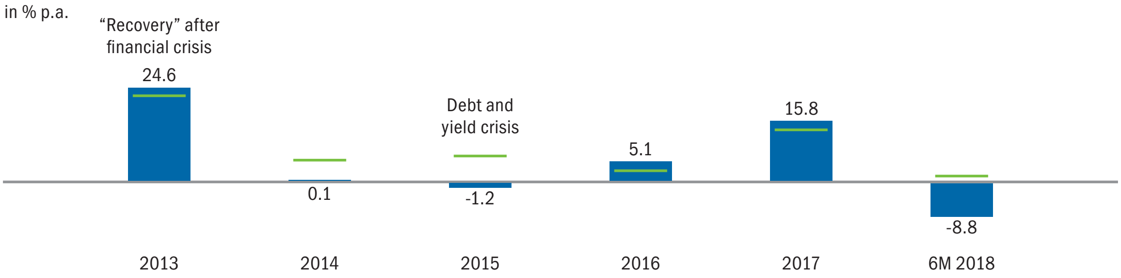
Figure 5: Projection for capitalisation and profitability of the top 50 European banks 2017–2022

Market prices reflect disbelief from investors

In addition to our own simulations, we also examined the capital markets' valuation of the European banking market. This bird's-eye view shows us how the competitive landscape is changing – and makes the call for action even stronger. Given banks' lacklustre levels of profitability, it is hardly surprising that their valuations are also a problem. The capital market performance of the top 50 European banks has gained some momentum, outperforming the market in the last two years. However, in the first six months of 2018, total shareholder return (TSR) was negative (-8.8 percent). This was due to increasing uncertainty about economic and political developments. The banks' price-to-book (P/B) ratios are still below the important hurdle of 1.0x, as they have been for many years, and are well behind the market average (Figure 6).

Investors still show little confidence in the ability of banks to generate value. TSR and P/B ratios clearly show that capital markets not only penalise banks for the current lack of profitability. Moreover, there is still significant mistrust that the top 50 European banks will be able to generate shareholder value in the future. Or, in other words, on average, investors are clearly not buying into the equity stories of most banks that at the same time fall short of expectations in terms of growth and/or innovation. This judgement is further fuelled by 2018 mid-year results showing that several banks failed to meet their targets – not only with regard to their bottom line results but especially with regard to planned operational improvements like cost-cutting and/or earnings increases.

Total shareholder return (TSR) of listed European top 50 and EURO STOXX 600



Price-to-book ratio (P/B ratio) development of listed European top 50

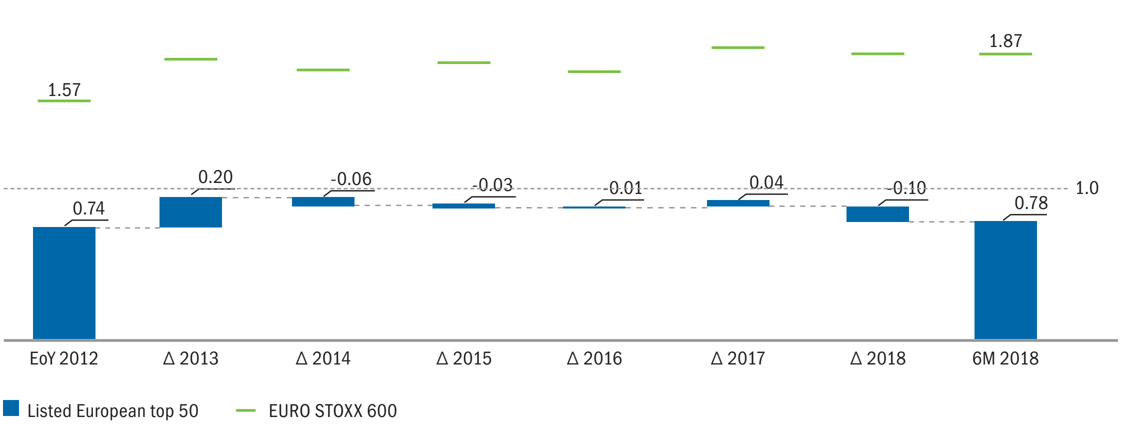


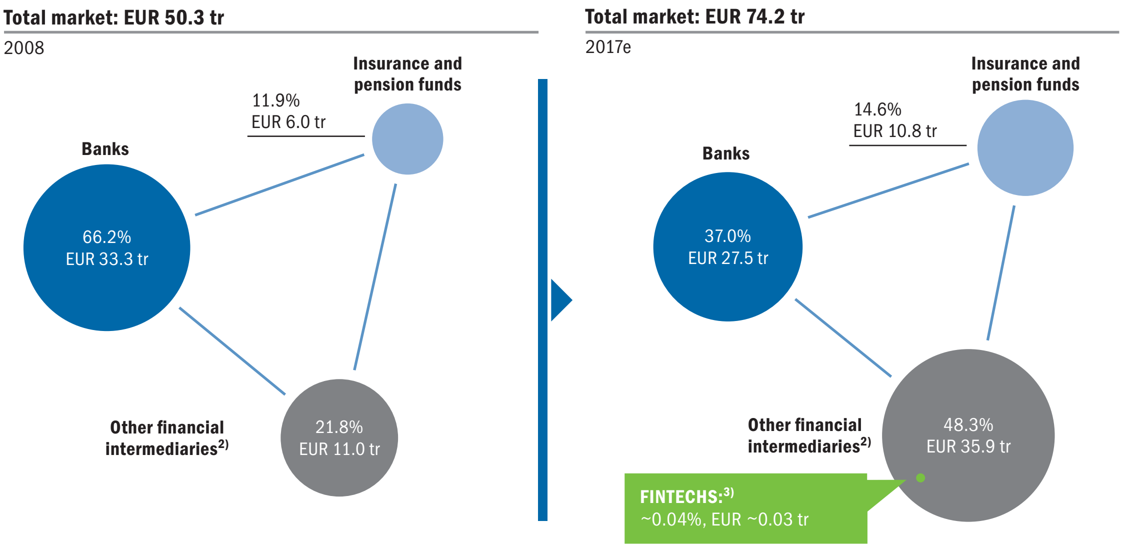
Figure 6: Capital market performance and valuation of European banks

The competitive landscape is changing

Adding insult to injury, we finally see disintermediation taking hold in Europe. Non-banks have been steadily increasing their market share since the financial crisis thanks to net money inflows, and in particular, the offloading of bank assets. The role of banks is diminishing as a result.

Figure 7 depicts the situation by looking at the eurozone's financial sector. In 2008, banks' total assets accounted for around two-thirds or EUR 33.3 trillion of the total EUR 50.3 trillion market. Other financial intermediaries such as money market funds, hedge funds, real estate funds, equity funds, venture capital corporations or financial vehicle corporations accounted for almost 22 percent of the market, and insurance and pension funds accounted for the remaining 12 percent. By 2017, the situation had changed radically. Banks had lost assets and market shares and therefore had dropped back to just 37 percent of the EUR 74.2 trillion market, while insurance and pension funds had expanded their share to nearly 15 percent. But the real winners were the other financial intermediaries, i.e. shadow banks and non-banks, which now hold almost 50 percent of the assets in the European financial sector.

We have summarised the unstable situation that the top 50 European banks are in – not only now but specifically in five years' time if no substantial management action is taken. Drawing on results from zeb's in-house simulation engine, the general capital market view and developments in the overall industry, we can only conclude that the European banking sector is reaching a tipping point. The next chapter will provide an overview and evaluation of potential management strategies that could be applied. Rather than looking into tactical measures as we did in our 2016 study, in this year's study we provide a strategic view as to how banks could position themselves in the future.



1) Data for all eurozone countries; figures for 2017 estimated based on 2016 full year numbers and average annual growth rate 2012–2016
2) OFIs, includes e.g. money market funds, hedge funds, real estate funds, equity funds, companies engaged in financial leasing and holding of securitised assets, dealing in securities and derivatives, e.g. venture capital corporations and development capital companies
3) Rough estimation

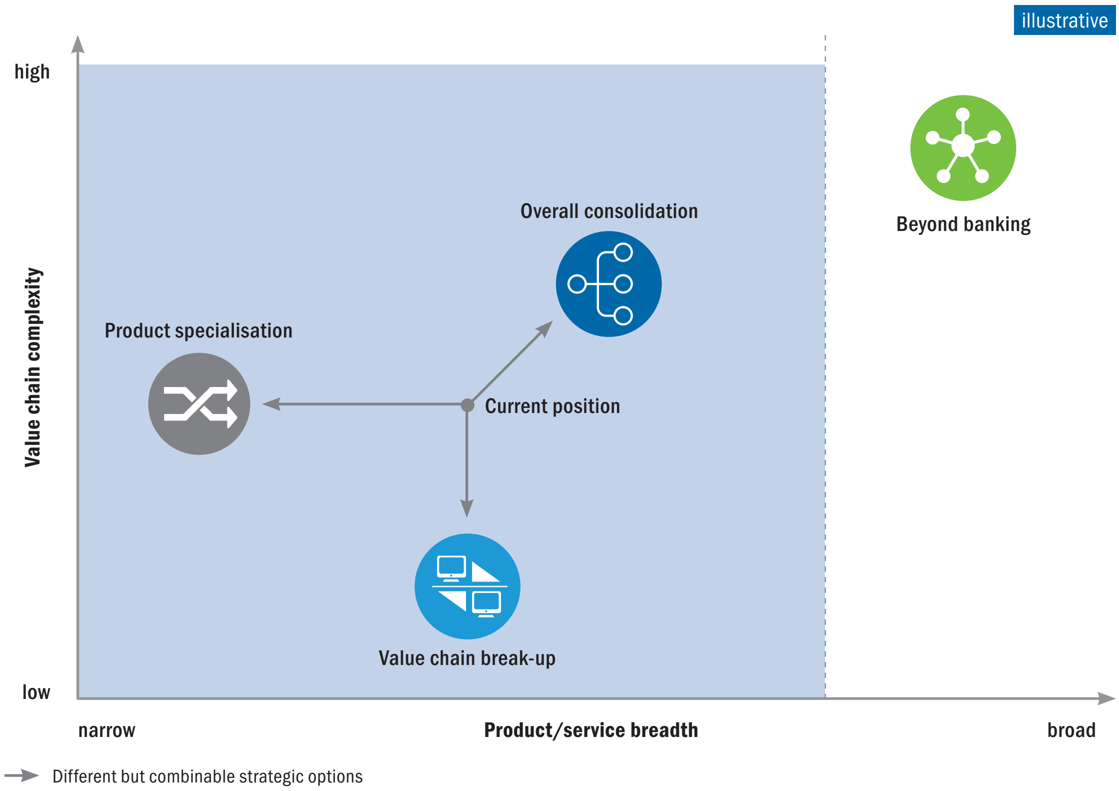
Source: Bundesministerium der Finanzen Germany, ECB, zeb.research.

Figure 7: The "solar system" of the eurozone's financial sector[1]

2. ADDRESSING TODAY'S BANKING CONUNDRUM: FOUR STRATEGIC OPTIONS

The banking industry has reached a tipping point: banks must urgently switch from their post-crisis "recovery mode" to a new "action mode". They need to find solutions to the problem of costs and profitability. Go down the wrong path and risk both relevancy and market share. Choose the right strategy and a current lack of sustainable profits could be reversed for success. The difficulty, as usual, lies in determining which path is the right one.

As shown in previous European Banking Studies, many banks have – so far – resorted to tactical measures to bring down costs and improve revenues. Although there is no harm in doing so, we believe that this is not enough given the expected shifts in the future competitive landscape. Therefore, we will outline four strategic options for banks going forward. Whilst we would not argue that these are the only actions that management can embark upon, we see ample evidence



Source: zeb.research.

Figure 8: Addressing today's banking landscape – four strategic options

already that these might be the major ones with first incumbents trying to follow this path. Moreover, we argue that these moves coincide with major industry trends as we will see them playing out soon (see Figure 8).

Of course, banks can potentially combine these strategic options into a larger, multi-layered strategic approach. The final choice is a question of management capability, a bank's history/legacy and its' skills/strengths that will determine which trend in which permutation is most likely to lead to success.

In the following, we discuss each strategy and trend in turn. After a brief introduction highlighting current observations, we present potential risks and benefits with regard to taking a certain position.

Badly needed consolidation – on a national and pan-European level – is happening too slowly

The argument and first observations

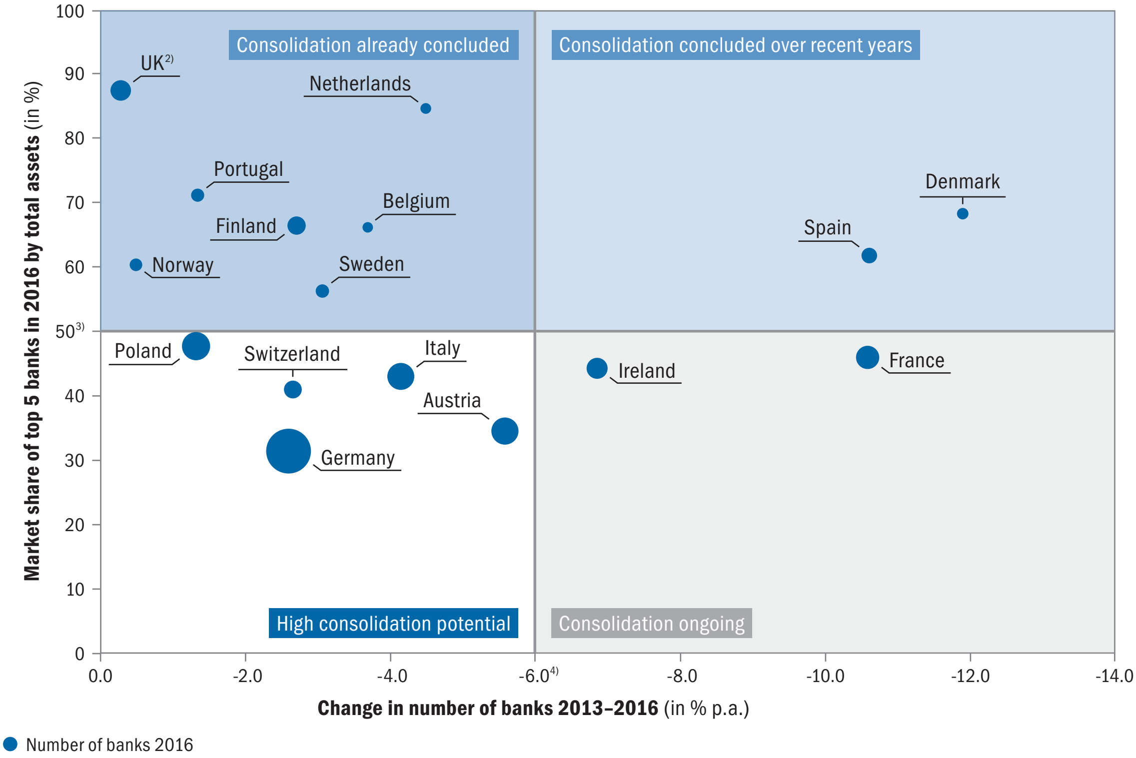
Obviously, there is always an argument that growth via mergers and acquisitions can lead to greater economies of scale and, therefore, higher profitability. In a certain way, this strategic path allows banks to retain their existing business model and simply increase their overall size. A prerequisite for pursuing this strategy is the availability of suitable targets which in turn is a function of the level of consolidation that has already occurred within Europe. Ultimately, if everybody were to embark on such a strategy, the resulting industry consequence would be the development of a landscape with fewer, bigger players.

There is no denying the fact that consolidation has been, and still is, a huge topic in European banking. We have witnessed a sharp reduction in the total number of European banks in recent years, from 9,771 in 2010 to 7,246 in 2017 – a drop of over 2,500. Noticeably, consolidation in the European banking market in recent years has mainly been due to mergers at a domestic level and within specific banking sectors. The number of cross-border mergers and acquisitions has decreased over the last few years: there were just 28 such deals in 2017, compared with 65 in 2010.

Within the overall trend towards consolidation, we can observe clear differences between European countries (Figure 9). Several large European markets, such as Germany, Austria and Switzerland, show high consolidation potential due to their clearly separated banking sectors (savings/cooperative banks, private banks, and so on). Here, we have seen a steady process of consolidation over the last three decades and we expect to see strong consolidation within banking sectors in the future. Other markets have already been through a major process of consolidation and are now unlikely to see further deals. In Sweden, for example, a massive consolidation of banks took place following the Swedish banking crisis in the mid-1990s, with around 90 percent of banks merging to form just a few large institutions. Figure 9 plots the main European countries against each other – both with regard to the level of market consolidation as well as its timing.

In many markets, we already see a consolidated market except for Switzerland, Germany, Austria and Italy. Clearly, consolidation potential is highest in those markets.

Consolidation phases[1]



1) Based on ECB figures, country-specific characteristics to be considered
2) Based on the number of current accounts in order to exclude London-based international investment banking assets
3) Estimated average hurdle for an oligopolistic banking market
4) Average European consolidation rate p.a. between 2013 and 2016

Source: European Central Bank, European Banking Federation, zeb.research.

Figure 9: High potential areas for consolidation

Strategic options and likelihood of success

With an overall market structure like this, the practicability of cross-border mergers becomes the predominant question for most of Europe's top 50 banks. Whilst cross-border deals are clearly possible from a pure regulatory point of view, they are fraught with hidden costs and asymmetries. Failed attempts at cross-border mergers in the past have shown that, even after many years, problems remain with regard to integration, the result of persistent cultural differences or legal systems. Different European countries have different legal environments, different tax systems, different banking products, different languages, different practices and different IT legacy systems. These obstacles hamper pan-European mergers between large players. Unlike the United States, the banking markets in the different European countries differ substantially with regard to the details that can easily derail a merger and drive up the cost of integration or hamper the reaping of synergies. In our view, this is why no truly pan-European bank has emerged as yet. While rumours are tossed about every now and then, there are few tangible signs of sensible merger discussions visible among large European banks. If banks' strategy announcements are to be believed, the majority do not intend to increase their focus on non-domestic or other European business in the near future.

Currently, we do not expect any major strategic mergers on a pan-European level to happen – although pure necessity could drive some players as was recently the case in the near bailout of a major bank in Spain that could only be avoided by a forced merger. In addition to the obstacles already mentioned, the real show-stopper in several cases is the unknown quality of credit portfolios. Thus, we see only 1–2 deals happening in the short and medium term.

Our expectation is that banks will rather acquire portfolios or individual business lines that other banks shed as part of streamlining their business portfolio. There are several deals that can be observed – albeit rather small in size. This is to say, that with regard to the setup of the top 50 European banks, we do not expect any major changes. New forces would only appear if the German, Swiss, Austrian and Italian banks further consolidated their go-to-market approach (which they are – at different speeds). These forces would need to be reckoned with in a way that probably would surpass their individual regional realms.

Further European legal harmonisation, finalisation of the banking union and the development of an overarching European policy for the banking sector will ultimately favour cross-border consolidation. However, there is still a long way to go on the political front until the situation in Europe is comparable to other large banking markets such as the United States or China, where incumbent banks thrive on large harmonised domestic markets.

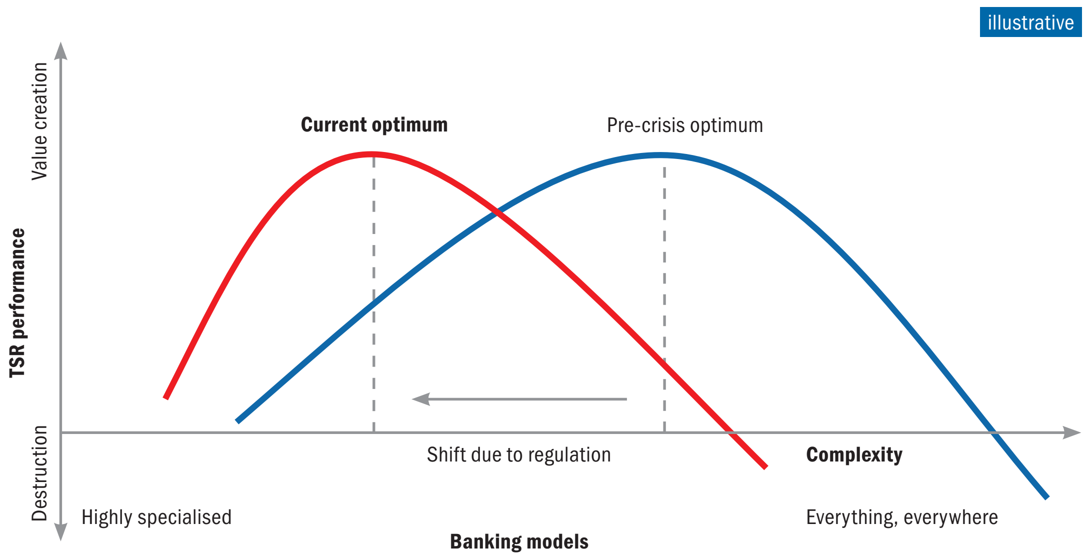
Product specialisation: focus on core competencies and competitive advantage

The argument and first observations

The second strategic option for banks is to move into product specialisation. In this option, the bank would focus on specific products that offer a favourable ratio of capital burden to earnings potential. Banks choosing this option would need to reallocate resources and make some disruptive changes, such as shedding unattractive businesses from their product portfolio. The result is the end of the traditional universal banking paradigm, with banks no longer attempting to do everything, everywhere.

It has long been argued that large banks benefit from synergies and diversification effects and that product specialisation is a dead end. However, today's large banks also suffer from excessively complex business models. With increasing legislation and regulation in recent years, the optimal level of complexity for banks has changed. Today it is not good to be too complex: the balance has shifted in favour of specialised models. In simple terms, the more specialised you are, the less complex your structures – therefore, the lower your costs and the greater your profitability (Figure 10).

Level of specialisation and complexity[1)]



1) Of course, the optimal level of specialisation and complexity is different for each individual bank and the result of a bank's individual situation which includes market position, business and operating model, product/service portfolio, IT systems/infrastructure and other factors

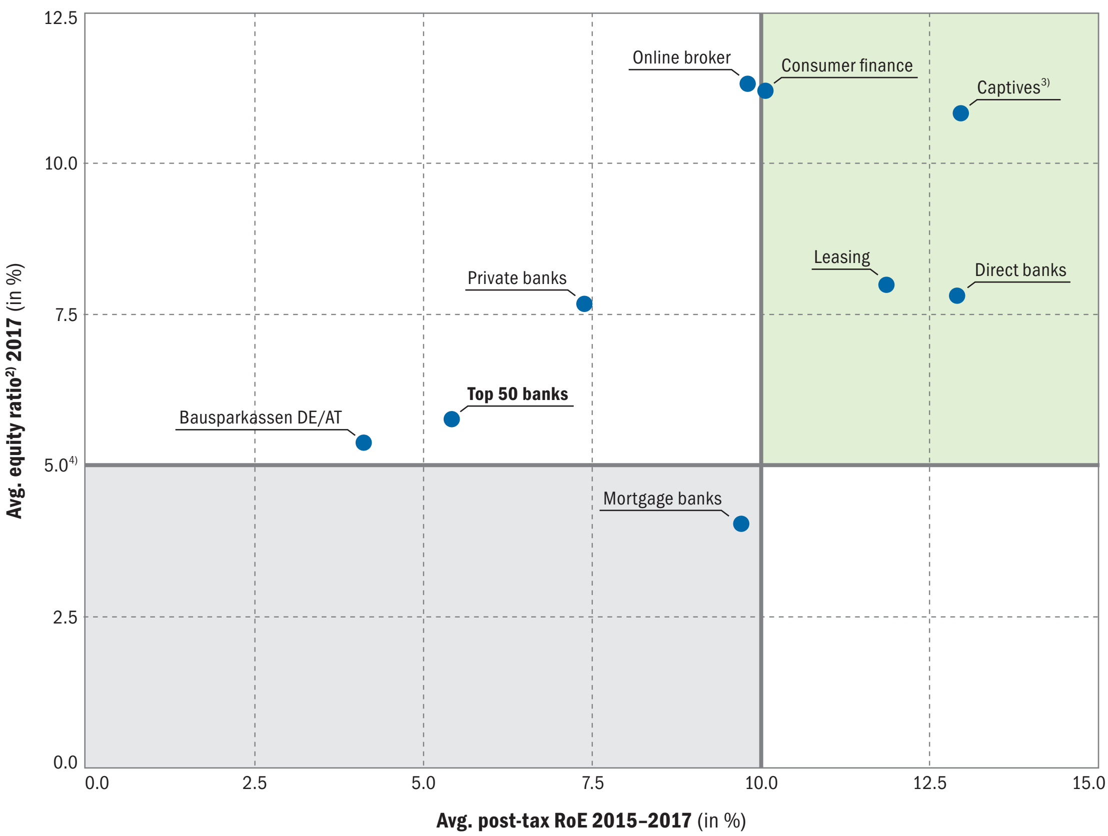
Source: zeb.research.

Figure 10: Specialisation vs. diversification of banks

Recent figures show that product specialisation can be financially advantageous for banks. Figure 11 shows that in 2017 most top European product specialists clearly outperformed the top 50 European banks in terms of both profitability and capitalisation. Similar results are found for earlier periods since 2010.

Since not all product specialists reported CET1 ratios, we adjusted the figure like-for-like towards an average equity ratio – i.e. the difference to the stated capitalisation figures are obvious. For most depicted banks here, the higher capitalisation as compared to the top 50 European banks does not come as a surprise. The specialist banks focus on those business models that are less capital intensive. For example, stand-alone investment banks are not to be found in Europe. Rather, we see private banks, captives and consumer lending institutions here.

What is interesting to note is the significantly higher profitability of these specialist institutions. Not only do they – in most cases – have a better balanced operating model that helps keep costs under control. Good examples of these streamlined operating models can be found in the group of the European consumer banks. In some cases, specialist banks thrive on being able to provide better services (at least perceived by their customers) that warrant higher prices as is the case for some private banks.



1) Largest companies in Europe (top 5: consumer finance specialists, leasing companies, online brokers, top 10: all other specialists)
2) Total equity to total assets
3) Due to their strong connection to an industrial group, captives are "subsidised" in some terms which might lead to (on average) higher returns / lower equity ratios
4) Correlates on average to a banking CET1 ratio of 12.5% (40%)

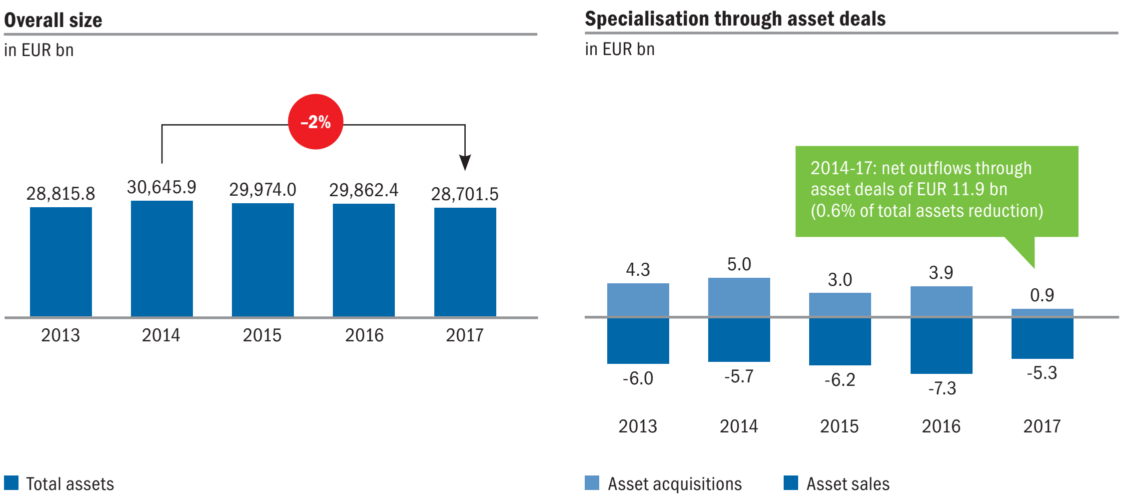
Source: company reports, FitchConnect, zeb.research.

Figure 11: Profitability and capitalisation of top 50 banks and product specialists[1]

Strategic options and likelihood of success

From an external perspective, we do not see many signs of specialisation at large banks over the last five years. Total asset size of the top 50 European banks declined in 2017, but the overall drop was just 2 percent p.a. since 2014. We can observe several deals by top 50 banks selling or buying (parts of) certain business areas. Since 2013, there have been around 160 asset deals where a top 50 bank has sold assets to another bank or even non-bank. The other way around, there have been around 25 deals where top 50 banks have bought assets from other banks or non-banks. These shifts are some indication of a trend towards greater focus. However, the overall volumes remain marginal compared to the total asset of the banks. Figure 12 shows that the deal volume of asset sales of top 50 banks has been around EUR 6–7 billion per year since 2013. In the same period, asset acquisitions were around EUR 3–5 billion, with just EUR 0.9 billion in 2017. Overall, the net outflow of top 50 banks has been just EUR 11.9 billion since 2013 – with total assets of around EUR 27 trillion. We arrived at similar conclusions when comparing divisional results and balance sheets over time. Some specialisation has taken place, but for the most part, the composition of the top 50 European banks' business model has stayed the same over the last five years.

Development of top 50 banks



Sources: company reports, zeb.research.

Figure 12: Total assets and asset deals of top 50 banks

We believe that the trend towards more specialisation and less complexity will substantially increase in the future. There are two main drivers:

- Bare economic necessity: with the advent of successful product specialists, banks will have to (re-) focus on their core competencies and products to be able to compete for market share again – unless they want to be driven out of more and more markets. Payments is probably one of the most imminent examples where product specialists are significantly encroaching upon banks' margins.
- Platform economy / open banking: with PSD2 and similar regulations it becomes easier to white-label products. Banks do not have to be able to produce any services for their customers themselves but can acquire them from the best-in-class without necessarily losing the customer interface.

Of course, large universal banks do not have to turn into "single product companies". It would be necessary to thoroughly assess their own product and channel capabilities. Only in those areas where the offering, the processes and their respective costs can be considered "leading edge" should banks' own production make them available to third parties. For all other services, third-party solutions should be sourced. In doing so, some of the positive developments that we have seen at specialist firms could be emulated within large banks as well.

The biggest impediment towards embarking upon this strategic option is certainly internal resistance and focus. The analysis of the right mix between offered products, served customers and overall degree of a bank's complexity – now that the regulatory reforms are more or less clearly defined – is relatively easy. Acting upon it and letting go of entire divisions is rather difficult in some countries – not only due to labour laws (since there will eventually be layoffs, etc.) but also because of the inherent power plays and dynamics within management teams and supervisory boards. More often than not these decisions are executed with the help of equity investors who garner management attention, or non-conflicted external parties who provide an unbiased outside-in view/assessment of the best specialisation course to take.

For more insights into this area, please refer to zeb's deep-dive studies on specialised banking models ranging from asset management firms to private banks in different European markets, retail banks and German building societies. Details for ordering any of these papers can be found in the appendix.

Banks as utilities: the break-up of the value chain

The argument and first observations

Strategic move number three is about the production side of things. While the first strategic option relates to scale in the universal setting and the second strategic option is about generating scale by a vertical cut of the banking system in terms of specialisation, the third strategic option breaks up the value chain horizontally building utilities leveraging scale in mid/back offices and IT to streamline the operating model and to reduce costs. The German savings bank and cooperative bank sector is a blueprint for this strategic move, being increasingly adopted by larger banks.

Reducing costs thus ultimately means implementing state-of-the-art IT infrastructure, digitalising processes and reducing legacy systems wherever possible – in addition to reducing personnel costs. Ultimately, this drive towards a better IT infrastructure within banks may lead to an increase in offerings such as banking-as-a-service, with some banks becoming IT companies.

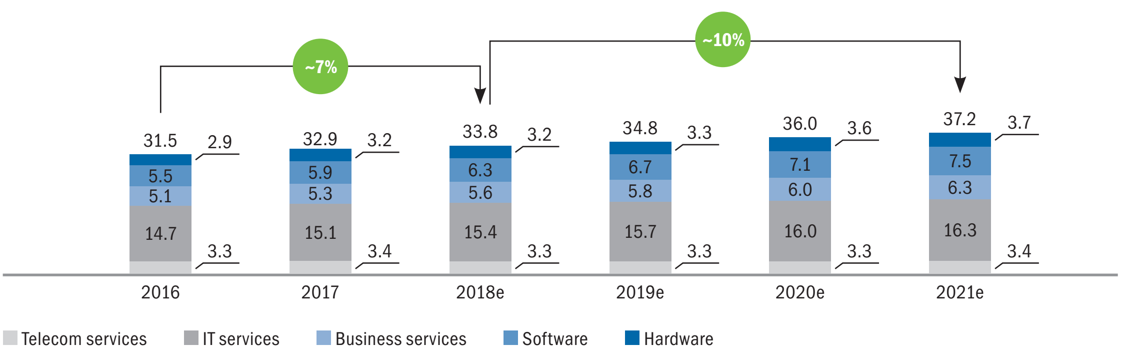
We observe that large IT centres are being built, services are being outsourced and near- or far-shored. Several banks contemplate whether or not they should become "utility centres" for certain services. Recent discussions amongst Swedish top banks to create a utility for Know Your Customer (KYC) and onboarding processes or first discussions amongst a consortium of German banks to build a regulatory reporting factory only highlight some of the moves that are currently being discussed.

However, we must admit that these are early stages and no predominant moves have so far been apparent – i.e. the Amazon of banking IT services has not yet emerged. Rather, current forecasts show that an overall increase in IT costs of around 18 percent is expected between 2016 and 2021, consisting of a seven percent rise in 2016–2017 and a projected further rise of ten percent by 2021. The main drivers for this increase are software costs, which are expected to grow by 19 percent between 2018 and 2021, and IT service costs, which will grow by 11 percent between 2016 and 2021 (Figure 13).

These numbers are based on the feedback from several banks in Germany, France and the UK and, in our view, allow the interpretation that widespread reductions in operating costs are not yet expected – although discussions regarding this topic abound.

IT cost development[1]

in USD bn



1) Development of costs in the global banking sector

Source: IDC Worldwide Semiannual IT Spending Guide, 2018, zeb.research.

Figure 13: Development of global banking IT costs

Strategic options and likelihood of success

We believe that banks have two options open to them with regard to this strategic move. In both cases, processes will have to be adjusted and old ways to be parted with. As a result, banks can achieve significant cost savings. First, on top of their traditional business, banks can become service providers, selling their services to other companies – a sort of specialised "process factory". This will mean focusing on non-differentiating parts of the value chain and pursuing excellence in these areas. For example, external firms already provide white-label securities services to around three-quarters of banks in Germany, effectively acting as utility centres for this service. Other banks have spun off part of their credit operations and allowed other banks onto their platform. Some of the large IT centres servicing several regional banks were originally part of individual banks themselves, such as ARZ in Austria. The benefits of becoming a service provider include economies of scale, achieved by providing services to several financial services players, and the possibility of sharing both change costs (software updates, adjustments to new regulations and so on) and run costs (competence centres, infrastructure and the like).

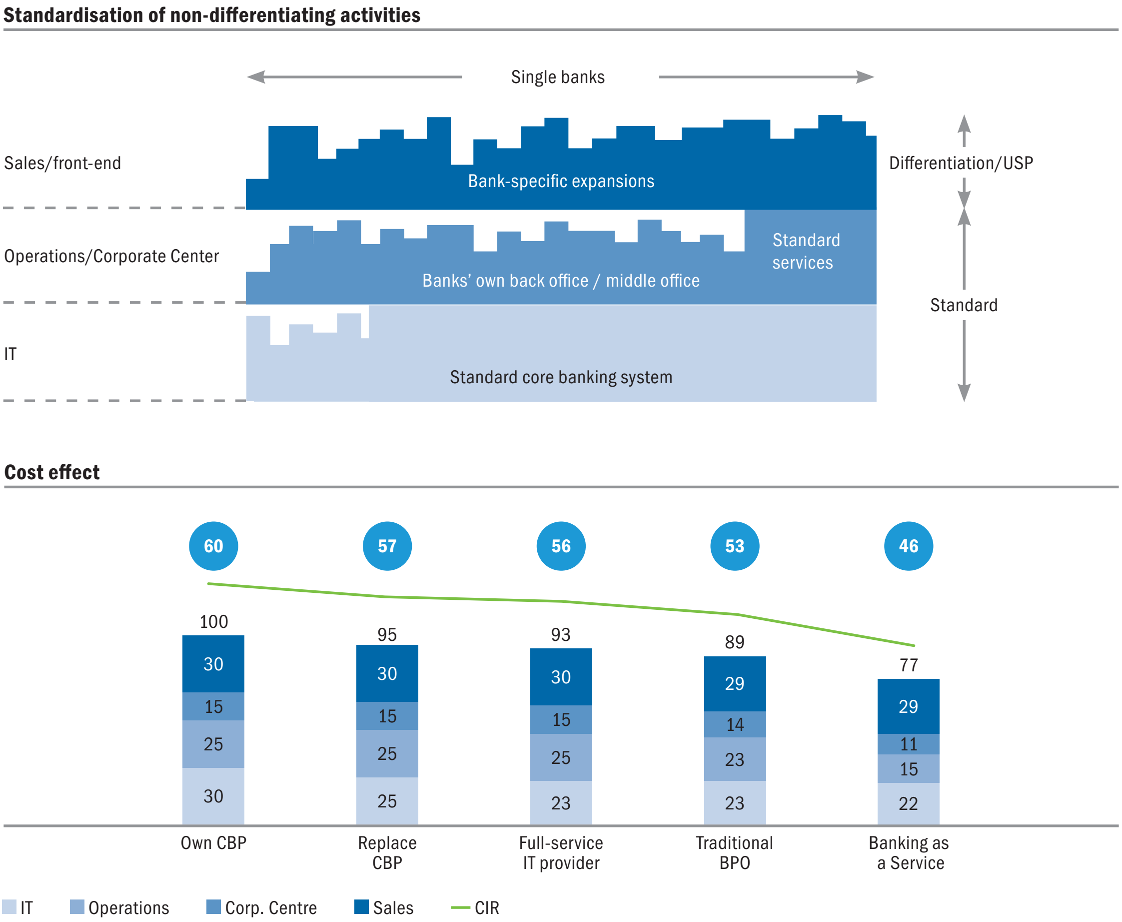
Second, banks can become "service buyers". This means using external standard solutions for value chain activities that offer limited or no differentiation – typically middle-office and back-office activities. Examples include some of the large Swiss players, which use FIS Derivatives Utility for their post-trade derivatives clearing, and some German banks, which currently outsource their securities services to a global player. The benefits of the "service buyer" approach include standardisation of processes, continuous updates and seamless release management, a high degree of automation and centralisation of expertise in competence centres. The approach also delivers a reduction in runtime for critical processes, distribution of the workload and significantly lower total costs.

The most important success factor in this approach is to first understand which value chain components are differentiators for the bank and which elements can be standardised. This will enable the bank to take the right approach to the "make or buy" decision. Banks should focus on what really matters, asking themselves which of their products and services contribute to their bottom line and which promote the overall excellence of the organisation. Moreover, they should investigate whether their customers really value tailored offerings – and more importantly whether they are willing to pay a premium for them. On this basis they can then simplify and standardise the rest of their operations. If they choose to "make", in other words to become a service provider, they must transform their organisation into a highly standardised, automated process factory. If they choose to "buy", i.e. to source services externally, they must adjust their business and operating model to the standard required by the third-party service provider.

The latest advances in technology merit a reassessment of the "make-or-buy" decision for most large European banks. Cloud computing and the arrival of a plethora of "banking-as-a-service" providers – i.e. firms that offer a highly automated bundle of software programs and process functionalities – make it worthwhile for banks to analyse this strategic decision in detail. This holds true for those banks that are striving for simplification and cost reduction.

Banks can achieve considerable cost reductions by extending standardisation into activities along the value chain in ways that are not visible to the customer. The upper part of Figure 14 indicates possible differences between single banks where some institutions show a very high degree of standardisation, whereas others have just standardised certain operations. The lower part shows how standardising IT by replacing the core banking platform, using a full-service IT provider or shifting to traditional business process outsourcing (BPO), can reduce a bank's total costs by up to 11 percent. Additionally, standardising operations and the corporate centre, in other words implementing a full banking-as-a-service model, can reduce total costs by a further 12 percent.

For more insights into this area, please refer to zeb's White Paper on banking-as-a-service. Details for ordering the paper can be found in the appendix.



1) CBP: core banking platform, BPO: business process outsourcing

Source: zeb project experiences.

Figure 14: Economics of standardisation

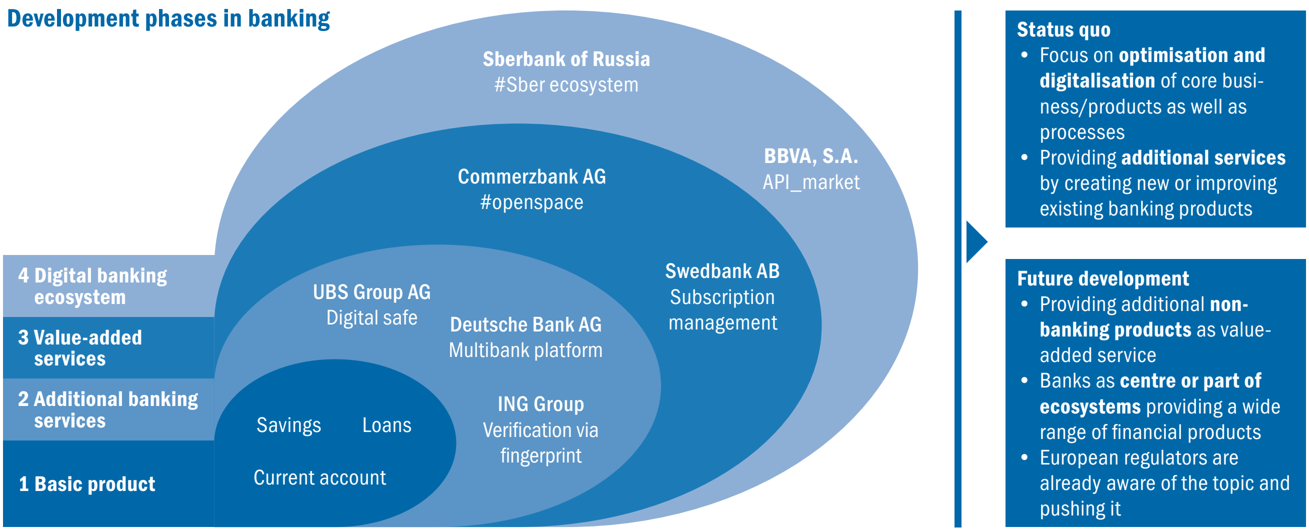
Going beyond banking through ecosystems is a viable option

The argument and some observations

The fourth strategic option for banks is to move beyond banking, maximising the value of their customer relationships – access, insights and data – by offering additional products and services, at the same time as building or becoming part of greater ecosystems. This will trigger the advent of financial ecosystems.

In the current situation, the majority of banks are focusing their digitalisation strategies mostly on digitalising their core business, processes and products internally. A few institutions have already started to provide additional services with a high proximity to banking that create new or improve existing banking products. But beyond that, non-banking services are found very rarely at present. In terms of enriching the product side, commercial successes are hard to find. Banks often lack the requisite rigour in their digitalisation of processes, although a few exceptional players have shifted to integrated digital platforms servicing all their channels with a uniform process.

Looking ahead, the next step for banks will be to provide non-banking services as value-added offerings, positioning themselves either as the hub of a financial ecosystem facilitating payments and providing a wide range of financial products on various platforms, or as one of the spokes in such an ecosystem. This is a development that European regulators are aware of and currently promoting. Figure 15 shows these development phases from classic banking towards a financial ecosystem. Of course, the examples provided are just an indication. There are several other approaches, products and services that can be found across the European banking sector.



Source: zeb.

Figure 15: Development towards an ecosystem

Strategic options and likelihood of success

Among the few examples of emerging ecosystems in the financial services industry, two general directions and approaches can be observed. The first option is to build one's own platform and ecosystem with the bank as the hub. The second one is to hook onto one, or even several, existing platforms or (social) networks to cover finance processes or utilise other services offered there.

Looking at the first approach, a bank will be the hub of the platform and may also host other financial service and non-financial service providers, distinguishing itself from competitors by focusing on the customer experience and immediate customer access. This setup gives the bank ample opportunities for cross-selling products and accessing new revenue pools. It leads to increased market power and control over content delivery, as well as enabling it to raise awareness of its own brand across a multitude of customer journeys. On the negative side, this strategic option involves significant setup costs and requires a very high level of digital maturity. It also brings increased risk to the bank's reputation, cybersecurity and regulation. Obviously, this option is only feasible for large banks with a strong market position – one where customers view the bank as having a reputation of being a trusted and reliable partner with sufficient financial resources.

Bearing this in mind, we do not believe that this option will be the saviour for every institution in the European banking industry but only a select few that operate in the right market environment with regard to their own size and legacy. Searching for interesting examples worldwide that might fit into this category and could thus be successful, we found Russian market leader Sberbank – serving around 60 percent of the Russian population. Sberbank plans to launch its own ecosystem in 2020, enhanced with robotics, virtual and augmented reality, biometric identification and psychometrics and integrating several marketplaces.

The alternative is for banks to become one of the spokes in such an ecosystem, selling their products through other platforms and providing back-end functionalities. In this scenario, the bank would need to focus on product excellence to distinguish its products from those of its competitors. On the plus side, it could sell its products via various ecosystems or networks and reach a large audience, creating higher revenue potential without significant setup costs. On the minus side, this strategy would entail strong reliance on the ecosystem operator and run the risk of the bank's role shrinking to that of a pure product provider. The bank would lose its customer interface due to its fewer customer touch points. This would inevitably lead to it suffering in terms of brand awareness. A current example for going in this direction is JPMorgan and its announced partnership with tech titan Amazon. The idea is to enhance the existing e-commerce platform with current account products and to serve clients with financial products without an own banking license (at Amazon) thus deriving cross-selling potential for both partners.

Currently, we see most of our top 50 European banks experimenting with different strategic options or trying out small-scale ventures – which is, in general, a good development from our perspective. Overall, and the examples given above underline this clearly, there is of course no single master plan every bank should follow. In fact, due to the very specific high-risk-high-return profile of building ecosystems, the general directions and options for a single bank must be considered very carefully and on a case-by-case basis.

Primary market research in Europe reveals that consumers are very reluctant to accept the mingling of banking services with sales platforms or social networks for example due to the risk to lose control. Consumers seemingly prefer ecosystems centred around banking products, i.e. with a bank at its hub that offers mortgage loans and non-banking offers such as relocation, architectural or craftsmen services. For more detailed information regarding the results of our market research, please refer to zeb's White Paper on the latest developments in customer needs. Details for ordering the paper can be found in the appendix.

This leads to an interesting dilemma in European banking. With at least some customers preferring big, banking-driven platforms, the current lack of management attention and in many cases especially the lack of financial resources prevent banks from pursuing such an option tenaciously. However, it is also clear that customer needs and demands vary among countries and age groups leaving some room for niche strategies and smaller solutions. In general, trying out approaches beyond banking is a good idea for European banks. But in the same way it is essential to stringently evaluate the benefits of this adventure and to have the courage to abandon this strategy when it simply does not correspond to the needs and demands of one's own customers.

3. A TIPPING POINT HAS BEEN REACHED: BANKS MUST SWITCH FROM RESCUE MODE TO ACTION MODE

Where does that leave banks? Clearly, given their challenges in connection with lacking sustainable profitability, below-par market valuation and shrinking market share, they need to do something. A tipping point has been reached. Banks must switch from rescue mode to action mode. Not only are banks and bank managers aware of this – investors expect it.

We believe that these discussions, that are taking place on the board level of all European banks, and ensuing management actions will – notwithstanding any major crises – result in four main trends that will shape the future of the European banking industry:

- There will be consolidated banking structures in all European banking markets that will provide most banking/financial services through their customer interface
- There will be a trend towards product specialists offering their products either independently or via these predominant market players
- The costs of producing banking products/services (with regard to IT costs and other non-differentiating services such as regulatory reporting, accounting, etc.) will ultimately come down and such products and services can be sourced from third parties
- Banking services will be interconnected with service platforms thereby creating more seamless customer experiences. For the time being customers would prefer traditional banks to drive these platforms

In public, many bank managers share similar views and have even assumed clear positions with regard to these trends or what they believe is most likely to happen. They have announced their official stance on mergers and acquisitions, future product and client portfolios, reducing IT complexity and the creation of ecosystems or how they want to embrace digitalisation. For all intent and purposes, it seems that they are well set to navigate the road ahead.

But our bilateral discussions with bank managers reveal a less certain picture. They have investigated the trends as far as they could, but the majority still feel that they lack a comprehensive strategy and the executive power required to deal with the issues. Moreover, implementing the regulatory agenda is still taking up management time and the current lacklustre profitability situation is not the best starting point for bold – and potentially expensive – strategic moves.

In our conversations with industry insiders, as few as one in five feel that their bank has made significant progress towards their target state. As one executive put it, they are waiting to see “Who will blink first?”, knowing they have to change, but lacking a clear vision of what they will change into. This approach risks ignoring the strategic threats: market share already reducing because of disintermediation, new market entrants challenging traditional models, and non-European rivals eying the European retail banking market. Even if banks return to adequate profitability it will be at the further cost of market share unless they update their strategies to meet the future of the industry. This calls for clarity over their own position and that of their competitors, an understanding of the strategic options available and the most likely industry trends. At this tipping point, banks must take decisive action to successfully navigate the road ahead or risk decline and irrelevance.

ABOUT US

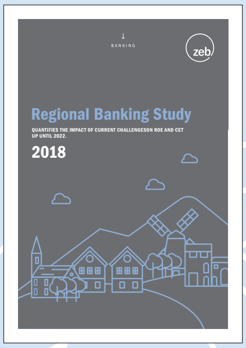
zeb is a strategy and management consultancy specialising in the financial services sector with 18 offices spread across Germany, Austria, Denmark, Italy, Luxembourg, the Netherlands, Norway, Poland, Russia, Sweden, Switzerland, Ukraine, the United Kingdom and the United States of America. With more than 1,000 employees, zeb is the leading consultancy for national banks, private banks, savings banks, cooperative banks and insurance companies.

zeb has the necessary tools and equipment to analyse and assess the challenges ahead and to design robust project concepts for implementation. We strive not only for perfectly fitted solutions, but also for sustainable, measurable and long-lasting success.

Our practice groups cover the specialist fields of business strategy models, operating models and finance & risk models. They are based around the principles of collaboration and networking and thus allow us to develop topics more rapidly and comprehensively and to act as experts – combined with consistent client orientation. We are convinced that outstanding industry knowledge is indispensable for developing tailored solutions and concepts. As the largest European management consultancy specialising in financial services, we rely on an implementation process based on strategic intellectual expertise and excellent hands-on skills.

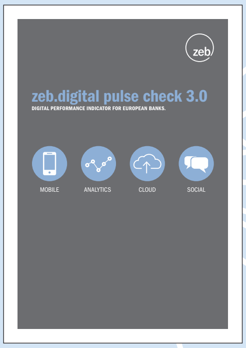
From thought to action!

THIS YEAR'S FEATURED ZEB STUDIES



Regional Banking Study

Quantifies current challenges for
regional banks in Germany until 2022.



zeb.digital pulse check 3.0

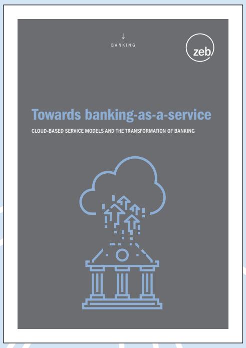
Measures the digital maturity of
the European banking sector.

European Banking Study

Presents market trends and strategic
options for European banks.

Private Banking Study Germany

Focuses on institutions with pure
private banking business models.

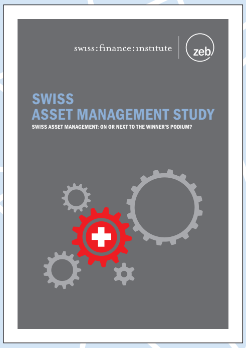


Towards banking-as-a-service

Answers the question: is now the right moment to move your business to the cloud?

Study on Building Societies

Analyses the initial situation and the future of German building societies.

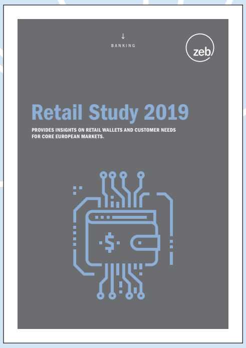


Asset Management Study

Analyses the reasons why asset management in Switzerland is facing huge challenges.

Corporate Banking Study 6.0

Pinpoints the major challenges for successful corporate banking of the future.



Retail Study 2019

Provides insights on retail wallets and customer needs for core European markets.

For more information, please contact publications@zeb.de

APPENDIX

EBS BANKING SAMPLE AND KEY FIGURES

Bank	Country	Cluster	Total assets in EUR bn	Post-tax RoE[1)]	Cost-income ratio[2)]	CET1 ratio	Lever-age ratio[3)]
HSBC Holdings Plc (HSBC)	UK	Universal bank	2,100.1	7.0%	64.9%	14.5%	5.9%
BNP Paribas S.A. (BNP)	FR	Universal bank	1,960.3	8.4%	69.4%	11.9%	4.6%
Crédit Agricole Group (CA)	FR	Retail bank	1,763.2	7.1%	63.6%	14.8%	5.6%
Deutsche Bank AG (DB)	DE	Universal bank	1,474.7	-1.2%	91.6%	14.8%	4.1%
Banco Santander SA (SAN)[4)]	ES	Retail bank	1,444.3	7.9%	54.1%	12.3%	5.3%
Barclays PLC	UK	Universal bank	1,276.7	-1.5%	69.4%	13.3%	4.8%
Société Générale S.A.	FR	Universal bank	1,275.1	6.2%	75.3%	11.6%	4.3%
BPCE Group (BPCE)	FR	Retail bank	1,259.9	5.4%	71.1%	15.3%	5.1%
Lloyds Banking Group Plc (Lloyds)	UK	Retail bank	914.9	8.1%	58.7%	14.1%	5.1%
ING Group N.V. (ING)	NL	Universal bank	846.2	9.8%	55.5%	14.7%	4.7%
UniCredit S.p.A. (UniCr)	IT	Retail bank	836.8	11.2%	67.9%	13.7%	5.7%
RBS Group Plc (RBS)	UK	Universal bank	831.5	3.3%	80.9%	15.9%	5.8%
Intesa Sanpaolo S.p.A. (ISP)	IT	Retail bank	796.9	13.9%	69.4%	13.3%	6.4%
Credit Suisse Group AG (CS)	CH	Universal bank	787.7	-2.2%	87.4%	13.5%	5.6%
UBS Group AG (UBS)	CH	Universal bank	782.5	2.1%	77.6%	14.9%	5.8%
BBVA SA (BBVA)	ES	Retail bank	690.1	8.8%	53.6%	11.7%	6.7%
Fédération du Crédit Mutuel (CM)	FR	Retail bank	619.2	6.0%	61.9%	17.4%	6.6%
Coöperatieve Rabobank U.A. (Rabo)	NL	Universal bank	603.0	8.2%	71.2%	15.8%	6.0%
Nordea Bank AB (Nordea)	SE	Universal bank	581.6	9.4%	53.4%	19.5%	5.2%
Standard Chartered Plc (STAN)	UK	Wholesale bank	552.5	2.8%	71.0%	13.6%	5.9%
DZ Bank AG (DZ)	DE	Wholesale bank	505.6	4.9%	58.2%	13.9%	4.6%
Danske Bank A/S (Danske)	DK	Retail bank	475.4	13.7%	51.2%	17.6%	4.4%
Commerzbank AG (CBK)	DE	Universal bank	452.5	0.8%	77.4%	14.9%	5.5%
ABN AMRO Group NV (ABN)	NL	Universal bank	393.2	15.0%	59.6%	17.7%	4.0%
Sberbank of Russia OAO (Sberb)	RU	Universal bank	392.2	24.0%	35.5%	11.4%[5)]	11.4%
Caixabank SA (Caixa)	ES	Retail bank	383.2	7.1%	64.9%	12.7%	5.5%
KBC Group NV (KBC)	BE	Retail bank	292.3	15.4%	52.9%	16.5%	6.1%
Svenska Handelsbanken (SHB)	SE	Retail bank	281.4	11.6%	45.5%	22.7%	4.6%
DnB ASA (DNB)	NO	Universal bank	274.7	11.1%	43.5%	16.4%	7.2%
SEB AB (SEB)	SE	Universal bank	260.3	11.4%	47.8%	19.4%	5.2%
LBBW (LBBW)	DE	Wholesale bank	237.7	3.2%	74.5%	15.8%	5.0%
La Banque Postale (LBP)	FR	Retail bank	231.5	8.0%	81.2%	13.1%	4.5%

Bank	Country	Cluster	Total assets in EUR bn	Post-tax RoE[1]	Cost-income ratio[2]	CET1 ratio	Leverage ratio[3]
Swedbank AB (Swed)	SE	Retail bank	225.1	14.7%	39.3%	24.6%	5.2%
Banco de Sabadell SA (Saba)	ES	Retail bank	221.3	6.1%	64.6%	13.4%	5.0%
Erste Group Bank AG (Erste)	AT	Retail bank	220.7	10.0%	67.3%	13.4%	6.5%
Bayerische Landesbank (BayLB)	DE	Wholesale bank	214.5	6.5%	64.6%	15.3%	4.0%
Bankia S.A. (Bankia)	ES	Retail bank	213.9	3.7%	65.2%	13.9%	5.9%
Raiffeisen Schweiz (Raiff CH)	CH	Retail bank	194.6	6.1%	66.5%	15.9%	7.1%
Nykredit Realkredit A/S (Nykr)	DK	Retail bank	191.6	11.4%	31.7%	20.6%	4.7%
JSC VTB Bank (VTB)	RU	Universal bank	188.2	9.1%	42.7%	13.1%[5]	9.1%
Belfius Banque SA/NV (Bel)	BE	Retail bank	168.0	6.5%	57.2%	16.1%	5.6%
NORD/LB (NORD/LB)	DE	Wholesale bank	165.4	2.2%	46.6%	12.2%	3.4%
Banco BPM S.p.A. (BPM)	IT	Retail bank	161.2	26.6%	67.0%	12.4%	5.6%
Helaba (Helaba)	DE	Wholesale bank	158.3	3.2%	75.4%	15.4%	4.9%
Zürcher Kantonalbank (ZKB)	CH	Universal bank	140.1	7.1%	66.2%	16.5%	6.8%
Banca Monte dei P. di S. S.p.A. (BMPS)	IT	Retail bank	139.2	-41.5%	74.9%	14.8%	6.0%
OP-Pohjola Group (OP)	FI	Retail bank	137.2	8.0%	58.5%	20.1%	7.9%
RZB Group (RZB)	AT	Universal bank	135.1	12.6%	62.0%	12.9%	6.1%
Unione di Banche Italiane (UBI)	IT	Retail bank	127.4	7.5%	70.4%	11.6%	5.9%
Bank of Ireland (BoI)	IE	Retail bank	122.6	8.3%	69.5%	15.8%	7.0%

All figures based on latest available reports (FY/9M/6M);
1) Post-tax profit to average total equity 2) Operating expenses to total earnings 3) Based on reported figures 4) Banco Santander merged with Banco Popular in June 2017 5) Tier 1 ratio

Source: company reports, FitchConnect, zeb.research.

DEFINITIONS AND ABBREVIATIONS

Building societies DE/AT

No.	Bank	Country
1	Bausparkasse Schwaebisch Hall AG	DE
2	BHW Bausparkasse AG	DE
3	Wuestenrot Bausparkasse AG	DE
4	LBS Landesbausparkasse Suedwest	DE
5	LBS Westdeutsche Landesbausparkasse	DE
6	Deutsche Bank Bauspar-Aktiengesellschaft	DE
7	Bayerische Landesbausparkasse	DE
8	Debeka Bausparkasse AG	DE
9	Raiffeisen Bausparkasse GmbH	AT
10	Bausparkasse der Oesterr. Sparkassen AG	AT

Consumer finance institutions

No.	Bank	Country
1	Santander Consumer Finance, S.A.	ES
2	BNP Paribas Personal Finance	FR
3	CA Consumer Finance	FR
4	TeamBank AG Nuernberg	DE
5	S-Kreditpartner GmbH	DE

Captives

No.	Bank	Country
1	Gazprombank (Joint-stock Company)	RU
2	Volkswagen Financial Services AG	DE
3	RCI Banque	FR
4	FCA Bank S.p.A.	IT
5	BMW Bank GmbH	DE
6	Mercedes-Benz Bank	DE
7	FCE Bank Plc	UK
8	Toyota Financial Services (UK) Plc	UK
9	Siemens Bank GmbH	DE
10	Hitachi Capital (UK) plc	UK

Direct banks

No.	Bank	Country
1	ING-DiBa AG	DE
2	DKB Deutsche Kreditbank AG	DE
3	mBank S.A.	PL
4	Comdirect Bank	DE
5	FinecoBank S.p.A.	IT
6	Alior Bank S.A.	PL
7	Boursorama	FR
8	Allianz Bank Financial Advisors S.p.A.	IT
9	BinckBank NV	NL
10	Tinkoff Bank	RU

Leasing institutions

No.	Bank	Country
1	LeasePlan Corporation N.V	NL
2	Iccrea BancaImpresa S.p.a.	IT
3	Credit Agricole Leasing & Factoring	FR
4	CBNP Paribas Leasing Solutions	FR
5	Natixis Lease	FR

Online brokers

No.	Bank	Country
1	BGL BNP Paribas	LU
2	Comdirect Bank	DE
3	Saxo Bank A/S	DK
4	Swissquote Group Holding Ltd.	CH
5	Interactive Brokers (U.K.) Limited	UK

Mortgage banks

No.	Bank	Country
1	Stadshypotek	SE
2	Realkredit Danmark A/S	DK
3	Compagnie de Financement Foncier	FR
4	DNB Boligkreditt	NO
5	Pfandbriefbank schweizer. Hypothekarinstitute	CH
6	Deutsche Pfandbriefbank AG	DE
7	Nordea Hypotek AB	SE
8	Muenchener Hypothekenbank eG	DE
9	WL-Bank	DE
10	DG Hyp	DE

Private banks

No.	Bank	Country
1	Julius Baer Group Ltd	CH
2	EFG Bank European Financial Group	CH
3	Coutts & Company	UK
4	J. Safra Sarasin Holding Ltd.	CH
5	Union Bancaire Privee	CH
6	HSBC Trinkaus & Burkhardt AG	DE
7	Vontobel Holding AG	CH
8	Liechtensteinische Landesbank AG	LI
9	DZ PRIVATBANK S.A.	LU
10	KBL European Private Bankers SA	LU

ZEB EBS SIMULATION MODEL – DETAILED ASSUMPTIONS

IFRS 9[1]	• **At initial adoption in 2018**: increasing **risk provisions**[2], as percentage of current risk provisions, **lower retained earnings** of each institution that prepares its financial statements in accordance with IFRS[3] • Increase of risk prov. leads to lower net loans, **RWAs** (risk weights remain unchanged) and **CET1 capital** • **From 2018 on**: 5% increase of annual impairment charges due to the changed impairment model according to an expert estimate by zeb
Recovery and resolution	• **Min. TLAC**[4] = max. of 16% + CCB[5] + individual G-SIB buffer + CCyB[6] of total RWAs (Basel III fully-loaded) and 6% of Tier 1 leverage ratio exposure[7]; **TLAC proxy** = total regulatory capital plus subordinated liabilities; whereas debt liabilities within Tier 1/Tier 2 plus other eligible liabilities are equal to or greater than 33% of min. TLAC; **TLAC gap**, based on previous year's figures, to be **filled with CoCos**[8] • **MREL**[9] **target** = MREL denominator[10] times MREL target ratio[11]; **MREL proxy** = total equity + subord. debt + senior. uns. debt (maturity > 1 year); **MREL gap**, based on prev. year's fig., to be **filled with CoCos**[8]
Ring-fencing UK/US	• **Revenue decrease depending on the relevance of US business areas**[12] for an institution; zeb tool models a decrease of **2% of CIB**[13] income • **Cost increase depending on relevance of business areas**[12] (US and/or UK) for an institution, zeb tool models an increase of **total costs** for each area **of 1%** (differentiated by one-off and permanent costs)
Financial instruments regulation	• **Modelling MiFID – investor protection**: revenue decrease as the part of inducements (60% of securities business[14]) which cannot be rolled over[15]; cost increase as a cost-income ratio increase of 300 bps with regard to the securities business • **Modelling MiFID – market regulation**: revenue decrease in the amount of 2% of trading income; cost increase as a cost-income ratio increase of 200 bps with regard to the trading income
Revised SA/ IRBA[16] **for credit risk**	• Approx. of revised standard and IRB approach for credit risk via a **general impact factor for credit risk** • Calculation of the impact factor for individual banks by detailed calculation tools using public information on, among others, **credit risk exposure and RWAs by exposure classes**, as well as zeb expert estimates – see zeb's Basel IV impact study for further details • **Floor factor is assumed to be 72.5%** • Bank-individual impact factors used where available, otherwise average impact factors for given cluster (i.e. retail, universal and wholesale) are used • **Estimated initial adoption in 2021**, calculation fully phased-in
Revised SEC[17] **framework**	• Revised SEC framework approximated via a **general impact factor for credit risk** • Calculation of the impact factor for individual banks by detailed calculation tools using public information on, among others, **securitisation positions**, as well as zeb expert estimates about **securitisation portfolio structures** – see zeb's Basel IV impact study for further details • Bank-individual impact factors used where available, otherwise average impact factors for given cluster (i.e. retail, universal and wholesale) are used • **Estimated initial adoption in 2018**
SA-CCR[18]	• Approx. of the SA-CCR via a **general impact factor for credit risk RWAs** • Calculation of the impact factor for individual banks by detailed calculation tools using public information on, among others, **derivative exposures**, as well as zeb expert estimates – see zeb's Basel IV impact study for further details • Bank-individual impact factors used where available, otherwise average impact factors for given cluster (i.e. retail, universal and wholesale) are used • **Estimated initial adoption in 2020**
CVA[19]	• Approx. of the CVA approach via a **general impact factor** for CVA RWAs • Calculation of the impact factor for individual banks by detailed calculation tools using public information and zeb expert estimates. Increasing risk weights for non-financial positions are not included in the calculations – see zeb's Basel IV impact study for further details • Bank-individual impact factors used where available, otherwise average impact factors for given cluster (i.e. retail, universal and wholesale) are used • **Estimated initial adoption in 2021**

1) International Financial Reporting Standards; impact from fair value re-classification, hedge accounting not considered 2) Estimation for customer loans, bank loans and others not considered. Ind. percentage of add. risk prov. taken from Barclays' study "re-visioning provisioning" for every institution. Avg. percentage of business model (universal: 54%, wholesale: 50%, retail: 28%) used when no ind. prov. available 3) Credit Suisse, Raiffeisen Schweiz Genossenschaft and Zürcher Kantonalbank are not affected, as they use US/local GAAP 4) Total Loss Absorbing Capacity 5) Capital conservation buffer according to transitional arrangement 6) Country-specific countercyclical buffer according to transitional arrangement 7) For Swiss G-SIBs: 28.6% of RWAs and 10% leverage ratio required 8) Contingent convertible liabilities used, since cheaper than CET1 capital; assumption: funding rate of 6% 9) Minimum Requirement for Eligible Liabilities 10) Total liabilities plus total equity 11) Min. 8% of total regulatory capital ratio (8% + CCB plus individual G-SIB buffer + CCyB) times risk density (RWAs to total assets) times 2 12) Relevance for US: existence of material CIB entity in US; for UK: core deposits > GBP 25 bn 13) Corporate and investment banking 14) 30% of the share of retail and private banking in fees and commission income 15) Rollover ratio of 80% 16) Standardised approach / internal ratings-based approach 17) Securitisation 18) Standard approach for measuring counterparty credit risk exposures 19) Credit Valuation Adjustment

Source: zeb.research.

FRTB[1]	• Approximation of the fundamental reform of standard and internal model approach for **trading book risks via a general impact factor** for market risk RWAs • Calculation of the impact factor for individual banks by detailed calculation tools using zeb expert estimates – see zeb's Basel IV impact study for further details • Bank-individual impact factors used where available, otherwise average impact factors for given cluster (i.e. retail, universal and wholesale) are used • **Estimated initial adoption in 2020**, calculation fully phased-in
Operational risk	• Approximation of the new Standardised Measurement Approach (SMA) for operational risks via a **general impact factor** for **operational risk RWAs** • Calculation of the impact factor for individual banks by detailed calculation tools using zeb expert estimates – see zeb's Basel IV impact study for further details • **Estimated initial adoption in 2021**
Basel III/FSB[2]	• **Basel III CET1 capital includes deductions** with respect to goodwill and other intangible assets, holdings and deferred tax assets[3] as well as retained earnings • **Retained earnings** as constant ratio of profits after tax (50% for listed and 75% for state-owned banks) • **Additional capital buffer for G-SIBs**[4] as classified by the Financial Stability Board
Brexit	• **As of 2019**, increasing costs (one-off and running) for EU banks with significant UK business (and vice versa) in order to continue operations there without a notable business effect; costs due to additional capital requirements are neglected • Indirect modelling by **increasing costs from relocation of employees and service duplication** • **General admin costs** are assumed to increase by **4%** from 2019 on, **relocation costs of employees as one-off costs** in 2019 (based on bank-individual reported figures where available, otherwise zero)
Reporting	• Includes **AnaCredit and new disclosure requirements, SREP** and **stress testing** which lead to higher data requirements due to evaluation processes and more transparent, consistent and granular reporting to regulatory authorities • Indirect modelling by **increasing regulatory and reporting costs** (10% of total costs) **from 2018** on (+5% growth in 2018, +20% in 2019, +30% in 2020, +20% in 2021 and 2022 based on zeb expert estimation)
Yield environment and margins	• **Individual interest rate simulation for each bank based on individual yield curves on 31/12/2017** • **Loan book**: constant asset margins across simulated period but changing opportunity interest rate • **Funding**: decreasing margins on customer deposits due to bucketing approach—simulation of effect via replication approach, other funding (short-term and long-term funding) with constant margins
P&L and B/S	• **Interest income** only variable position – constant operating expenses & other non-interest earnings, e.g. fees and commissions, trading income • **Normalised loan loss provisions**[5], **country-specific constant tax rate**, reduction/increase of **extraordinary result to zero until 2020, adjusted litigation costs**[6] (reaching bank-representative value of the last 5 years at the end of 2019) • **Generally constant B/S structure** and volume, but increase in equity due to retained earnings (parallel increase of cash and due from banks on asset side)

1) Fundamental Review of the Trading Book 2) Financial Stability Board 3) Calculated through stated transitional and fully loaded CET1 capital 4) Global systemically important banks 5) Loan loss provisions are assumed to move back to the average of 2015–2017; in individual cases, 2017 figures were used 6) For each bank, average litigation costs (5-year average, 2013–2017 and excluding outliers) were calculated; it is assumed that current litigation costs (2017 figures) will reach minimum of the 2017 figures and this 5-year average at end of 2019; after that (in 2020 to 2022), litigation costs will remain constant at this level

Source: zeb.research.

Ratio	Definition
Common Equity Tier 1 ratio (CET1 ratio)	Common Equity Tier 1 capital to risk-weighted assets (RWA)
Cost-income ratio (CIR)	Operating expenses to total income
Cost of equity (CoE)	Cost of equity is defined as risk-free rate + beta x risk premium, risk-free rate is a 10-year moving average of European 10-year government bond rates as provided by the ECB, beta equals average beta 2010–2014, risk premium is the long-term average risk premium (5%)
Leverage ratio (LR)	Estimation used if stated figures not available. Ratio of tier 1 capital to total assets plus weighted off-balance sheet items (guarantees: 100%, commitments: 35%), including netting effects from derivatives / reverse repos (asset weight of derivatives: 15%, i.e. netting of derivatives: 85%, asset weight of reverse repos / cash collaterals: 90%, i.e. netting: 10%)
Loan-deposit ratio	Loans to customers to customer deposits
Post-tax return on equity (RoE)	Post-tax profit to average total equity
Tier 1 ratio	Tier 1 capital to risk-weighted assets (RWA)
Total shareholder return (TSR)	Total return of shareholders of a bank including all stock price changes (changes of market capitalisation), dividends and changes of capital base within a given period

Abbreviation	Term
AnaCredit	Analytical credit datasets
B/S	Balance sheet
bn	Billion
BPO	Business Process Outsourcing
bp	Basis point
CBP	Core Banking Platform
CCB	Capital conservation buffer
CET1	Common Equity Tier 1
CIB	Corporate and investment banking
CIR	Cost-income ratio
CoCos	Contingent convertibles
CoE	Cost of equity
CVA	Credit valuation adjustment
ECB	European Central Bank
FinTech	Financial technology
FIS	Fidelity National Information Services Inc.
FRTB	Fundamental review of the trading book
FSB	Financial Stability Board
FY	Financial year
G-SIB	Global Systemically Important Bank
IFRS	International Financial Reporting Standards
IRB(A)	Internal ratings-based (approach)
IT	Information technology
KPI	Key performance indicator
KYC	Know Your Customer

Abbreviation	Term
LCR	Liquidity Coverage Ratio
Local GAAP	Local Generally Accepted Accounting Principles
LR	Leverage ratio
M&A	Merger and acquisition
MiFID	Markets in Financial Instruments Directive
MiFIR	Markets in Financial Instruments Regulation
MREL	Minimum Requirement for Eligible Liabilities
P&L	Profit and loss account
P.A.	Per annum
P/B ratio	Price-to-book ratio
P2P	Peer-to-Peer
PSD2	Revised Payment Service Directive
RoE	Return on equity
RWA	Risk-weighted assets
SA	Standardised approach
SA-CCR	Standardised approach for measuring counterparty credit risk
SEC	Securitisation
SREP	Supervisory Review and Evaluation Process
TLAC	Total loss absorbing capacity
tr	Trillion
TSR	Total shareholder return
US GAAP	United States Generally Accepted Accounting Principles

CONTACTS

Jens Kuttig
Senior Partner
Managing Director Netherlands
Barbara Strozzilaan 101
1083 HN Amsterdam
Netherlands
Phone +31.20.2409.071
E-mail jens.kuttig@zeb-consulting.com

Dr. Florian Forst
Partner Germany
Taunusanlage 19
60325 Frankfurt
Germany
Phone +49.171.2240862
E-mail florian.forst@zeb.de

Bertrand Lavayssière
Managing Partner UK
107 Cheapside
EC2V 6DN London
United Kingdom
Phone +44.207.7968.699
E-mail bertrand.lavayssiere@zeb.co.uk

Arnd Heßeler
Executive Manager Luxembourg
37A, Avenue John F. Kennedy
1855 Luxembourg
Luxembourg
Phone +352.273.561.305
E-mail arnd.hesseler@zeb.lu

Dr. Gabor David Friedenthal
Managing Director Italy
Via Santa Maria Segreta, 6
20123 Milan
Italy
Phone +39.027.2275.208
E-mail gabor-david.friedenthal@zeb.eu

Sherwin Uretsky
Senior Advisor USA
250 Park Avenue, 7th Floor,
New York, NY 10177
Phone +01.781.690.2696
E-mail sherwin.uretsky@zeb-consulting.com

Alexander Nefedov
Managing Director Russia
Testovskaya St., 10
123112 Moscow
Russia
Phone +7.495.545.4289
E-mail anefedov@zeb.com.ru

Frank Farrell
Senior Manager Sweden
Biblioteksgatan 11
111 46 Stockholm
Sweden
Phone +46.85.2743.329
E-mail frank.farrell@zeb.se

Dr. Michaela Schneider
Managing Partner Austria
Praterstraße 31
1020 Vienna
Austria
Phone +43.1522.6370.711
E-mail mschneider@zeb.at

Dr. Maciej Meder
Managing Director Poland
ul. Krolewska 18
00-103 Warsaw
Poland
Phone +48.22.3787.462
E-mail mmeder@zeb.pl

Peter F. Rek
Managing Partner Switzerland
Gutenbergstr. 1
8002 Zurich
Switzerland
Phone +41.44.560.9770
E-mail prek@zeb.ch

We would like to thank Dr. Florian Forst, Dr. Olaf Scheer, Christian Schiele, Heinz-Gerd Stickling, Dr. Ekkehardt Bauer, Dr. Frank Mrusek, Martin Rietzel, Dr. Benedikt Rotermann, Kekeli Anthony, Andreas Osvold, Irina Zmyzgova and all other colleagues who were involved in this study for their valuable input and dedicated work.

If you would like to discuss or contribute to next year's study or its methodological foundations, please reach out to Dr. Ekkehardt Bauer at ebauer@zeb.de or Dr. Dirk Holländer at dirk.hollaender@zeb.co.uk.

MIX
From responsible sources
FSC® C011279
FSC
www.fsc.org

#EBS18

EBS@zeb-consulting.com
www.zeb.eu/ebs18

zeb
Hammer Straße 165
48153 Münster
Germany
Phone +49.251.97128.0
Fax +49.251.97128.101
E-mail muenster@zeb.de
www.zeb.eu

zeb | Banking | S | EBS| EN | 1.8K | 09.18

360° CONSULTING FOR FINANCIAL SERVICES—FROM THOUGHT TO ACTION