OLIVER WYMAN

BEYOND RESTRUCTURING: THE NEW AGENDA

EUROPEAN BANKING 2017

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EXECUTIVE SUMMARY

Europe's banks have spent the last nine years working hard to recover from the financial crisis. They have been repairing their balance sheets, making the changes demanded by new regulations, and exiting structurally unprofitable businesses, all in a low growth context.

While the performance of European banks has recovered from the lows of 2008 the average return on capital of 4.4 percent remains well below the hurdle rate. This average masks large geographic differences; banks in some EU markets have completed this restructuring process, while other markets continue to struggle.

However all of Europe's banks now also find themselves having to deal with a rapidly changing environment. New customer preferences, digital interfaces and platform businesses are changing how customers bank – a trend that will be accelerated by regulators' push for "open banking". Automation and data tools are creating the opportunity and imperative to significantly cut cost bases.

In short, Europe's banks are emerging from the crisis only to face a whole new set of challenges. The new agenda is going to require boldness of a kind: going beyond restructuring and making changes to the banking business model itself. To date, only a few organizations are taking action to fully address these new challenges.

We believe the incumbents in the sector still have major structural advantages and can thrive if they make the bold moves necessary.

1. STATUS OF RESTRUCTURING

Balance sheet clean-up: Europe's banks have spent significant time and resources to streamline their balance sheets. In some EU markets this is completed but the process of restructuring, writing off and selling off non-performing loans will continue in markets such as Greece, Italy and Portugal.

Regulation, capital, and risk: Banks have been forced to increase capital and shrink balance sheets, resulting in average capital ratios increasing from 3.7 to 5.8 percent (Tier 1 capital/ (IFRS) assets). Further work is now in train to strengthen oversight and control such as MiFID II. Planning for structural reform such as Brexit and Recovery and Resolution planning continue to take up management attention.

Exiting unprofitable businesses: Good progress has been made here both from a business line perspective, for example exits from wholesale banking and real estate lending, and a geographic perspective as banks have moved away from non-core markets. We estimate that in wholesale banking, European banks have exited lines of business that generated annual revenue of €10 billion in 2009.

Operational efficiency: Waves of cost savings programs have been announced; nevertheless, nominal bank expenditure grew at one percent per year from 2008 to 2016, and cost-income ratios barely moved as revenues shrank in the same time frame due to an environment of low interest rates and squeezed margins. No European bank is "done" with cost cutting. Managers at two-thirds of European banks are still initiating new cost-cutting work, and the rest have efficiency programs in progress.

Concentration and consolidation: While some European markets have been transformed by a consolidation wave, others have barely moved in this period. Greece and Spain have seen concentration double since the crisis and Italy has seen significant activity over the past year. Cross-border consolidation remains limited.

2. THE NEW AGENDA

Responding to changing buying behavior: The growth of aggregator platforms on which customers can compare, buy, and use a variety of suppliers in a much wider range of products is forcing banks to make critical strategic choices around participation, investment, and partnerships in this area.

Upgrading and replacing legacy infrastructure and processes: The pace of change of technology, combined with a desire to reduce cost will see continued work to replace legacy systems with "greenfield" infrastructure, and the use of application programming interfaces (APIs) to allow a modular approach to systems build and replacement.

Delivering higher financial resource efficiency: In light of the increasing complexity of constraints on financial resources, banks will deploy advanced financial resource management tools that aid decision-making by modelling the comprehensive financial resource consumption.

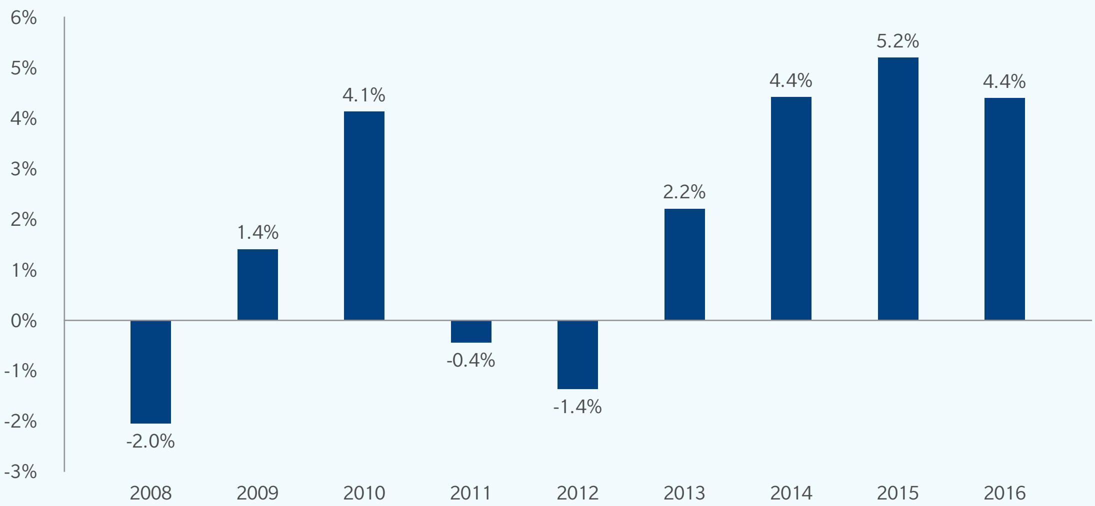
Consolidation opportunities: In light of ongoing challenges to economics, we believe consolidation is likely to be accelerated in some markets, for example in Italy. However, it will not be a priority in many markets.

Building a workforce of the future: As banking changes, so does the workforce required by banks now and in the future. Banks will need to use innovative approaches to talent management as well as workforce planning to attract and deliver the talent they need.

Delivering for our societies: The financial crisis triggered long-term political changes with significant implications for banks. The growth of nationalism and populism is putting further onus on banks to be part of the solutions to society's broader challenges.

STATUS OF RESTRUCTURING

Exhibit 1: Average return on Tier 1 capital for EU banks



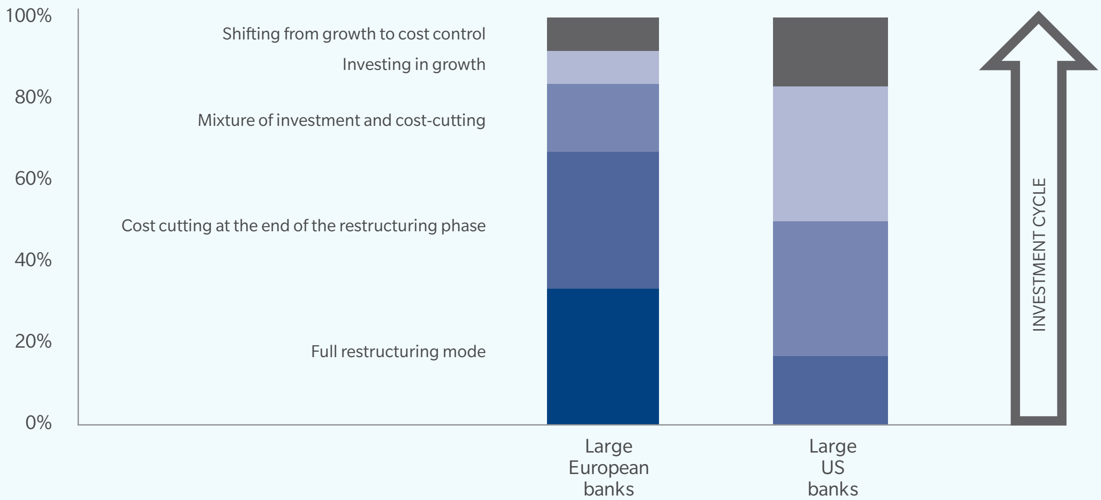
Note: Includes domestic and foreign-owned branches and subsidiaries; excludes Poland, Lithuania, Croatia, and Hungary due to data availability
Source: ECB Consolidated banking statistics, Oliver Wyman analysis

The performance of European banks has recovered from the lows of 2008. However, at 4.4 percent, the average return on capital remains well below the hurdle rate for most banks (see Exhibit 1).

Banks across Europe have been through a major process of restructuring in response to weak profitability and to meet the regulations that came in the wake of the financial crisis. Progress varies by country, but most European banks are now nearing completion of their efforts to shut down unprofitable lines of business, clean up the balance sheet of non-performing assets, and meet the higher capital requirements and liquidity ratios. They still have a fair way to go, however, on cutting costs and simplifying infrastructure.

Oliver Wyman's project experience, conversations with management, and public data make us think that about a third of large European banks are still focused on the full restructuring agenda, a third are almost finished balance sheet restructuring and are cutting costs, and a third have made sufficient progress to move beyond restructuring and have started investing for renewed growth (see Exhibit 2).

Exhibit 2: Position of large European banks in the restructuring cycle



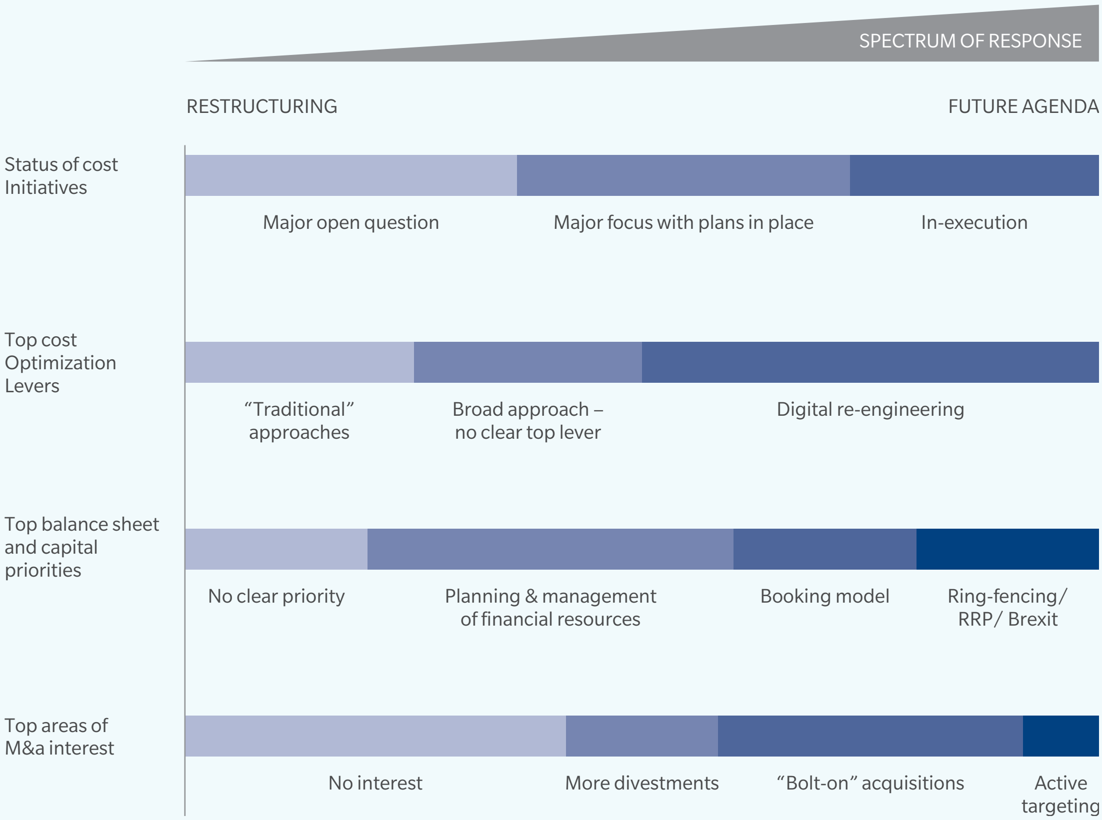
Source: Oliver Wyman analysis

Banks in the US are further through their restructuring efforts compared to those in the Europe; their restructuring and cost cutting is largely complete, and many have now begun investing in growth. This may lead to an increased competitive threat in the EU: US banks could start to gain market share from those European banks whose management teams are still focused on reducing cost. This effect may be increased as many US banks set up new entities in the EU as a result of Brexit and need to find new sources of revenue to meet the increased cost of their EU footprint. An early example of this is the recent announcement by Goldman Sachs that it intends to launch a greenfield digital-based retail bank in the UK.

Sources of growth may be hard to find in many of Europe's mature markets. Some hopes remain that as monetary easing ends, interest rates will rise and this will ultimately lead to an increase in margins, and increased profit. However, there are reasons why this conventional wisdom may not hold: First, easing is likely to coincide with an increase in competition as banks in EMEA begin to have capital to put to work as a result of restructuring. Second, price transparency has increased across all segments in the last ten years as a result of digital innovations (for example comparison websites) and regulatory requirements (for example the transparency measures in MiFID II) and may prevent banks from realizing margins seen in previous high rate environments. Finally, and perhaps most concerning in some markets, for example the UK, higher rates will likely drive increased credit defaults (particularly in consumer) which in turn will reduce overall profit. Overall, the balance of the expansionary vs profit reduction forces is uncertain, and shouldn't be counted upon to drive higher returns in many markets.

Exhibit 3 outlines the status of banks in key focus areas. In the rest of this section, we chart the progress of European banks in meeting these major recent challenges.

Exhibit 3: Areas of management focus at major European banks



Source: Oliver Wyman analysis

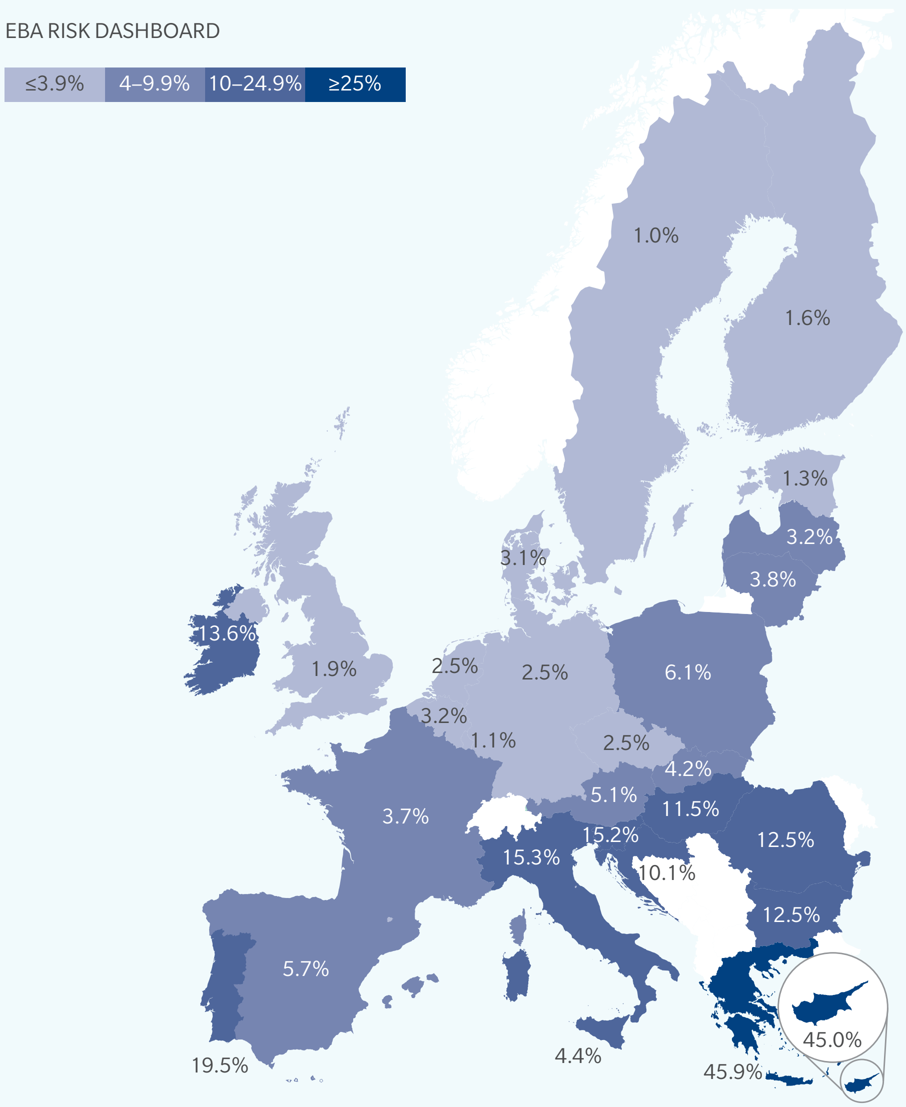
1.1. BALANCE SHEET CLEAN-UP

For a number of European banks, the main focus of the restructuring work has been in cleaning up their balance sheets by selling off or winding down large non-performing loan (NPL) portfolios (see Exhibit 4). The new IFRS accounting standard 9, which makes it less favorable to keep NPLs on the balance sheet, have made it possible to free up internal resources to focus on more strategically relevant areas.

The progress that banks have made in restructuring has varied among countries – dependent on the nature of the crisis in their home markets, the type of underlying collateral, and the strength of creditors' rights. NPLs created by local real estate bubbles have proven easier to deal with than NPLs from corporates or small and medium-sized enterprises (SMEs) in economies struggling for competitiveness. Restructuring loans for corporates and SMEs are typically more difficult as these counterparties are (often) financed by multiple banks, and creditor coordination therefore becomes more complex.

Banks in countries with high NPL ratios (such as Greece, Italy, and Portugal) are expected to continue the process of restructuring, writing off, and selling off NPLs in the next five years to significantly reduce their risk exposure.

Exhibit 4: NPL ratio per country (December 2016)

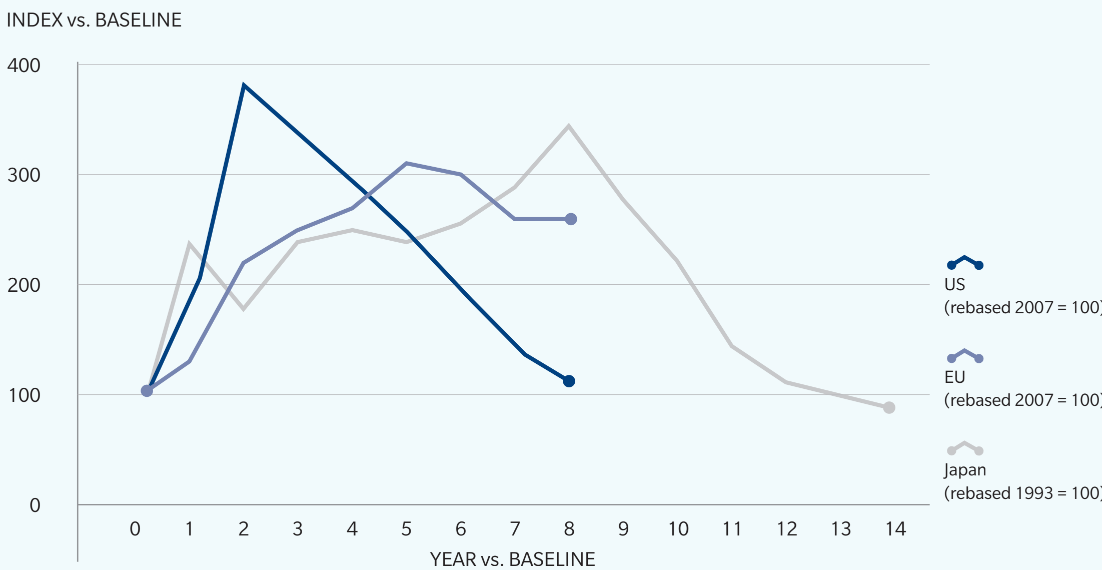


Source: Oliver Wyman analysis

In some markets, the continued hunt for yield by investors and closing bid-ask-spread has started to allow banks to exit NPLs at prices aligned with book values, particularly for real-estate-backed loans. In other markets, additional state intervention mechanisms are being considered through legal changes (for example, to accelerate recovery processes), the creation or expansion of state-sponsored bad banks, or loan servicing platforms.

One of the key issues behind the sluggish NPL divestment in Europe is the NPL-stage mismatch between buyers and sellers in terms of when they want to transact. Banks are hesitant to sell NPLs where full recovery is still possible while investors want to get in as early as possible to utilize their capabilities for a successful turnaround. Potential solutions to this problem are further discussed in our recently published report "The Dawn of a New Era in Restructuring."

Exhibit 5: NPL ratio indexed to the start of the crisis



ource: Oliver Wyman PoV: The Dawn of a New Era in Restructuring

1.2. REGULATION, CAPITAL, AND RISK

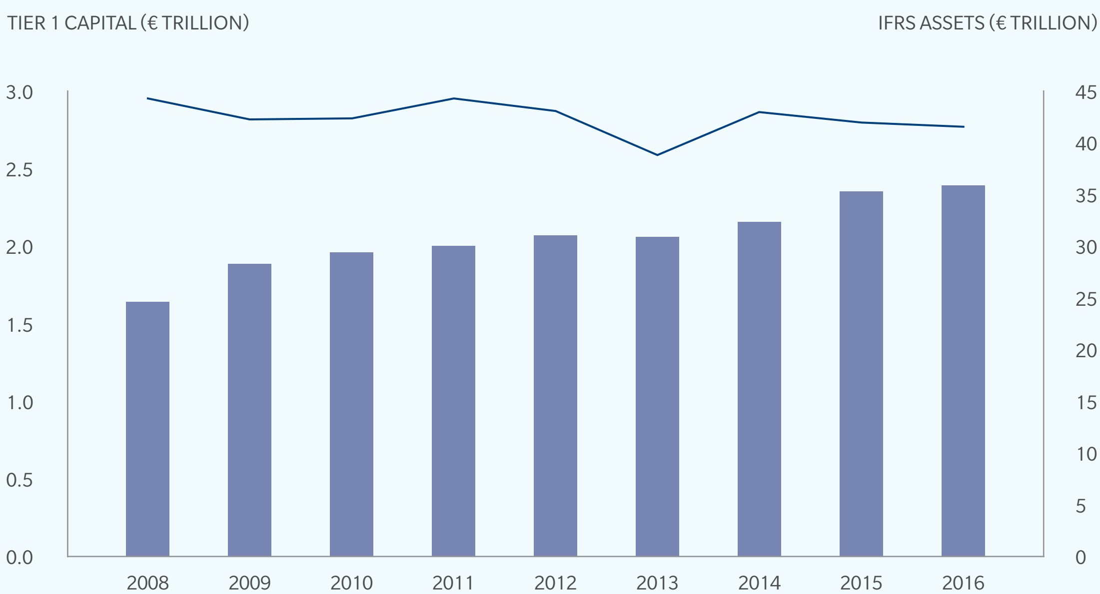
EU banks have increased their levels of Tier 1 capital (+40 percent), while simultaneously reducing the size of their balance sheets (-5 percent). Average capital ratios (Tier 1 capital/IFRS assets) have increased from 3.7-5.8 percent (see Exhibit 6).

With new capital and liquidity rules mostly implemented and increased capital requirements met, the priority for European banks now is to manage the complex financial resource requirements and maintain returns across the business.

At the same time, there are structural and technical changes that are fast approaching, which many banks have yet to implement, such as IFRS9, MiFID II (due for implementation in January 2018) and the General Data Protection Regulation (GDPR, due in May 2018). Planning for the further structural reform as a result of Brexit and Recovery and Resolution requirements are also holding management attention.

Many of the largest European banks are also still dealing with expensive compliance breaches, and are engaged in major programs of work aimed at improving controls. Between 50 percent and 75 percent of banks' spending on conduct risk is going into projects rather than day-to-day management.

Exhibit 6: Average capital, IFRS assets, and capital ratio for EU banks



	2008	2009	2010	2011	2012	2013	2014	2015	2016
Tier 1 capital ratio	3.7%	4.5%	4.6%	4.5%	4.8%	5.3%	5.0%	5.6%	5.8%

Assets (right axis)
Tier 1 (left axis)

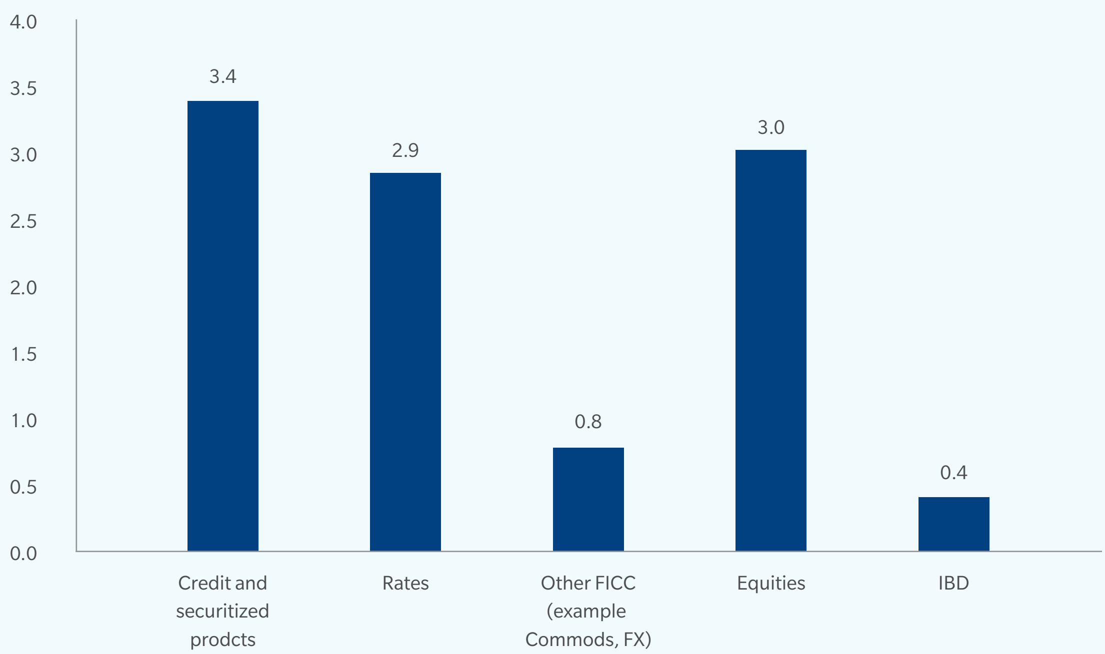
Source: ECB, Oliver Wyman analysis

1.3. EXITING UNPROFITABLE BUSINESSES

Banks in Europe have made good progress in withdrawing from unprofitable lines of business and regions. For example, we estimate that in wholesale banking, European banks have exited lines of business that generated annual revenue of €10 billion in 2009 or 10 percent of total wholesale banking revenues (see Exhibit 7). Large exits have also occurred in commercial real estate lending (especially among Spanish banks as a prerequisite for state aid) and shipping finance (for example HSH Nordbank and Commerzbank).

We have also seen geographic retrenchment by a number of European banks as institutions have focused on their home markets. Barclays has withdrawn from Italy, Deutsche Bank and BNP Paribas from Russia, HSBC from Brazil and many other markets. By our estimation, only 30-40 percent of banks still expect to withdraw from additional lines of business, most of which would be minor.

Exhibit 7: Wholesale markets business line exits for EU banks since 2009 (in € billion)



2009 revenue exited (per product)	25%	10%	5%	15%	3%

Note: Excludes mid-market and captive sales (for example own private bank), and treasury and funding revenue

Source: Oliver Wyman analysis

1.4. OPERATIONAL EFFICIENCY

Over the past five years, most European banks have announced programs aimed at achieving significant cost savings, partly forced by an environment of low interest rates and squeezed margins. Nevertheless, nominal EU banking expenditure grew at one percent per year from 2008 to 2016 (see Exhibit 8).

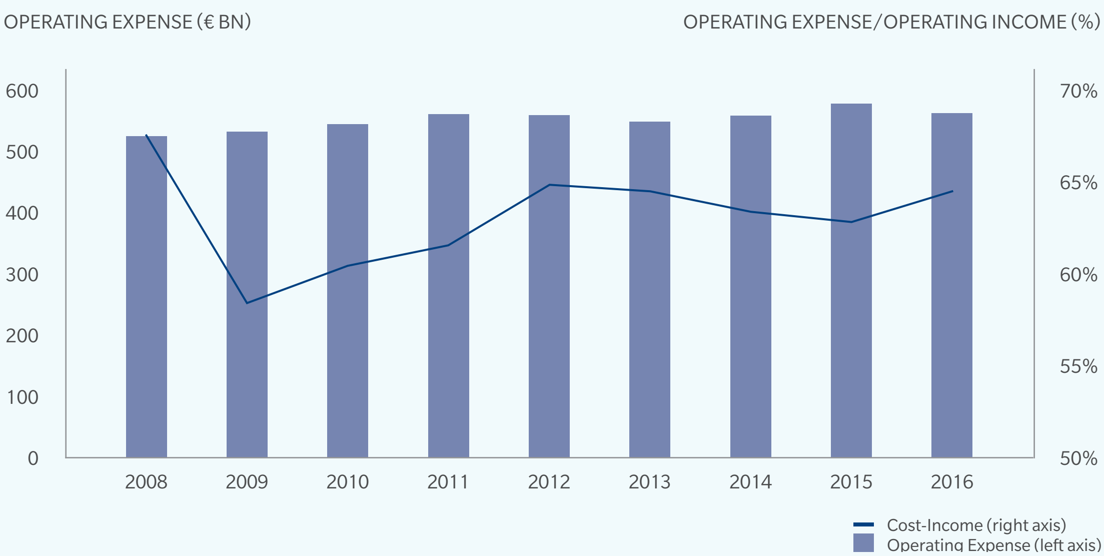
There are a number of reasons why European banks have found it hard to remove cost from the business:

- The **public perception** of banks in Europe means that cost cutting (headcount reduction, branch closure, and so on) tends to be viewed negatively, especially after many of the institutions have been rescued with public funds.
- Strict **labor laws** in many countries create a challenging environment to reduce headcount.
- **Large-scale regulatory** change has cost billions of euros to implement.
- A number of European banks have had to pay **significant fines** to the regulator – in total over €50 billion since 2009[1].
- **Legacy infrastructure** is both expensive to run and to change.
- **Management bandwidth** has been taken up by major issues outside of cost cutting, so cost in some institutions has not received the necessary focus of senior leaders.

Banks are now turning to new digital tools to reduce costs. By our estimates, 30 percent of banks are focused on "traditional" cost-cutting measures, such as reorganization and top-down full-time equivalent (FTE) targets; 40 percent are devoted to digital re-engineering; and 30 percent are taking both approaches.

In all, no European bank is "done" with cost cutting. The management at two-thirds of European banks are still initiating new cost-cutting work, and the rest have efficiency programs in progress.

Exhibit 8: Total bank costs and cost–income ratio for EU banks, 2008-16



Note: Includes foreign and domestic banks. Excludes Poland, Lithuania, Czech Republic, and Croatia due to availability
Source: ECB consolidated banking data

1 According to a European Systemic Risk Board (ESRB) report on misconduct risk in the banking sector in 2015, page 12 (based on data from the CCP Research Foundation, Financial Times, Financial Conduct Authority)

1.5. CONCENTRATION AND CONSOLIDATION

While some European markets have been transformed by a consolidation wave, others have seen more incremental changes since the financial crisis.

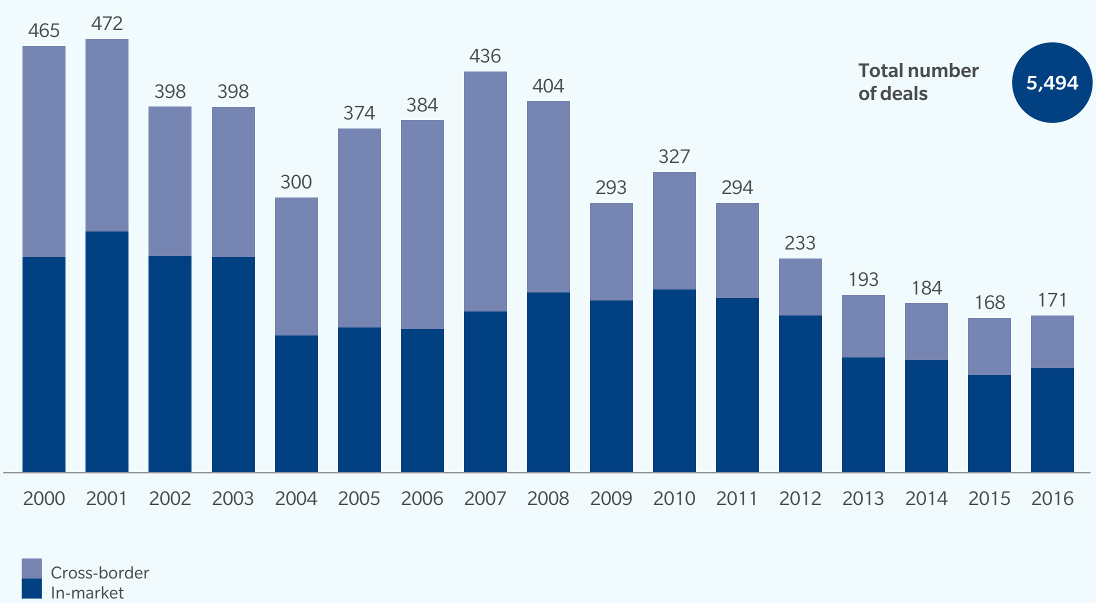
The number of merger and acquisition (M&A) transactions, both domestic and cross-border, involving banks has dropped sharply since the beginning of the crisis (see Exhibit 9). This reflects the shift of focus towards capital preservation and balance sheet repair, as well as uncertainty over asset quality of potential targets. Carrying out acquisitions during the period when the asset side of the balance sheet was still re-pricing and uncertainty about the ultimate marks persisted, proved to be very risky – even leading to the destabilization of banks, which did not judge correctly the exposures of the target.

Despite this, concentration at the European level has increased slightly over this period, and in line with the long-term trend (see Exhibit 10).

At the country level, we observe significant disparities among markets (see Exhibit 11). And the difference seems to be to a large extent explained by the degree of restructuring required and associated public intervention as well as by the underlying market structure.

Perhaps the most telling cases are those of Greece or Spain where concentration (as measured by the Herfindahl index) has doubled over the period. Exhibit 12 (**page 18**) outlines the consolidation activities that have taken place in Spain over the past few years.

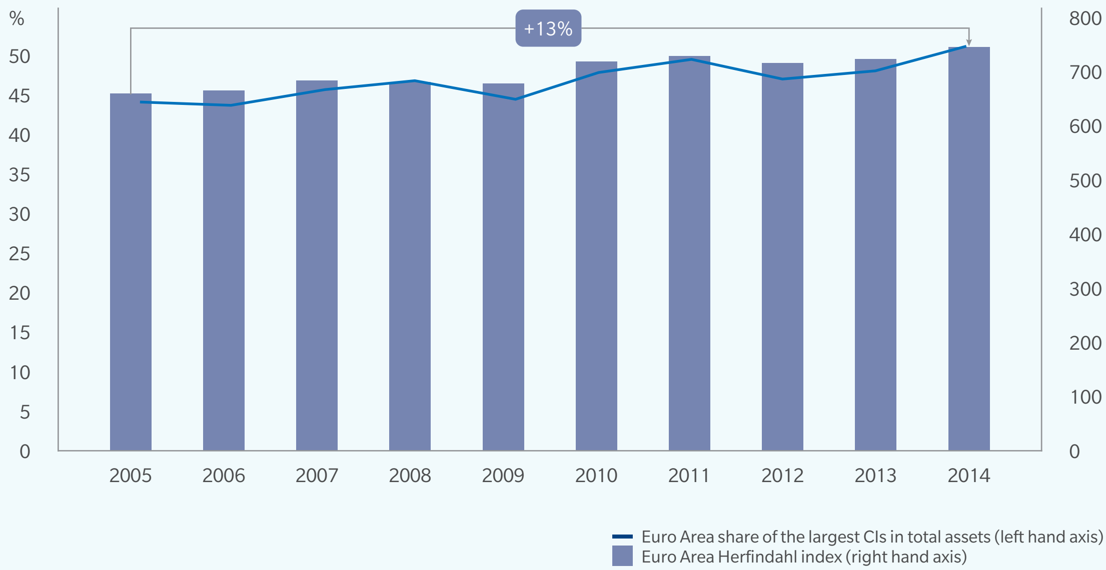
Exhibit 9: Total number of transactions[1], 2000-2016 (by number of transactions)



Note: 1. Includes all transactions where the acquirer is a bank in the European region (includes Russia, Turkey, Azerbaijan, Armenia and Tajikistan) and the target is a financial entity

Source: Dealogic

Exhibit 10: Market concentration in the EU banking system (2005-2014*, share of largest five credit institutions, Herfindahl index)

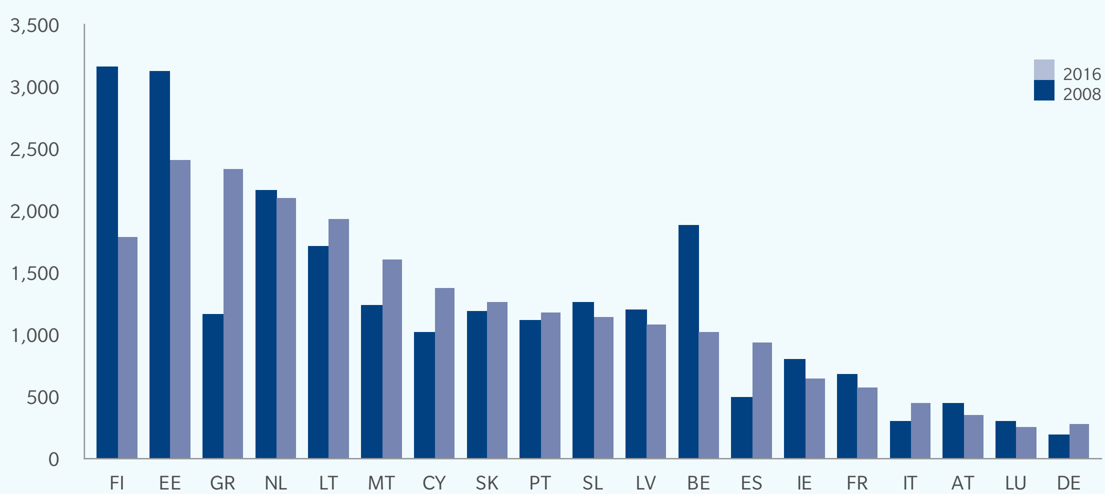


Note: Herfindahl index is a measure of the size of firm in relation to the industry and is commonly used as an indicator of the amount of competition in the industry. It is defined as the sum of the squares of the market shares of the firms within the industry

* Latest consistent data available is up to 2014

Source: EU structural financial indicators and Oliver Wyman analysis. ECB Challenges for the European banking industry, Conference "European Banking Industry: What's Next?", University of Navarra, 7 July 2016

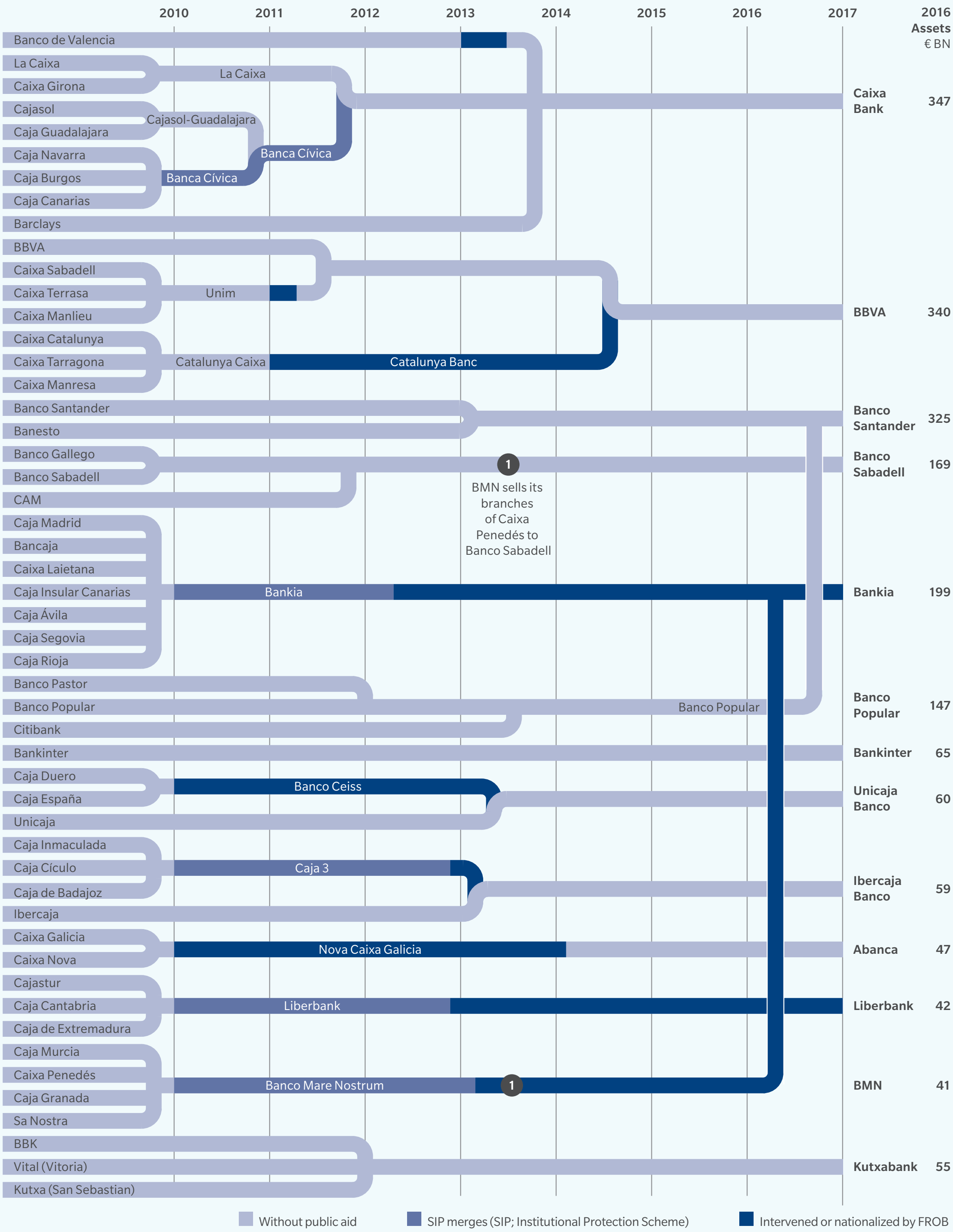
Exhibit 11: Concentration in Euro areas countries, ECB Statistical Data Warehouse, Herfindahl index



Note: It should be noted that the ECB data shows total assets on consolidated group level. However, regional cooperative banks are treated as individual entities when not owned by a central body. Hence, for countries with a significant number of cooperative banks with , such as France, the illustration underestimates the degree of consolidation.

Source: Same as Exhibit 10

Exhibit 12: Overview of consolidation activities in Spain, 2010-2017



Italy is less concentrated than most of Europe, but has seen significant activity over the last year with Unione di Banche Italiane's acquisition of Nuova Banca Marche, Nuova Banca Etruria and Nuovo CariChieti, and BPER Banca's acquisition of Cassa di Risparmio di Ferrara. In Germany, the long-term trend of steady consolidation has continued, with a continued trend towards mergers amongst the smaller local banks, the number of Landesbanks falling from 14 to six, and the two cooperative bank central institutions merging.

This begs the question of whether consolidation and concentration will accelerate in the coming cycle and if we will start to see a revival in cross-border M&A – which we discuss further in section 2.4.

1.6. REGIONAL DIFFERENCES

The progress of banks along the post-crisis restructuring agenda inevitably varies by the country's context post-crisis. Exhibit 13 shows a summary.

Exhibit 13: Country-by-country status of post-crisis restructuring

Country	Post-crisis challenge	Status of restructuring	2016 RoC[1]	Perspectives
France	MED	Largely complete	8%	Less impacted by the financial crisis with overall profitable banking sector throughout, although some banks had a few negative quarters (and Dexia was rescued). As a result, they have been focusing less on NPLs and cost cutting than peers and done some relatively limited restructuring in terms of business mix Impact of digital and margin compression require banks to now focus on optimization, business model transformation, and new growth innovation.
Germany	HIGH	In progress	2%	Severe profitability challenges across the market despite ultra-low risk costs and driven by oversupply. Largest banks still largely in "full restructuring" mode – further work on cost and footprint is likely. Consolidation across midsize-banks is challenging given the "three-pillar" structure of the market. Smaller end of market is still highly fragmented by European standards, ongoing consolidation "below the surface" with long-time horizon.
Italy	HIGH	In progress	-10%	Optimization work still needed, on both NPL disposals and cost reduction Further consolidation of smaller players.
Netherlands	MED	Largely complete	8%	Generally strong economics with high levels of concentration Significant ability to focus on digital and new business models.
Nordics	LOW	Largely complete	12%	Economics are favorable at larger players, although some further scope for cost optimization work seems likely given the apparently stagnant revenue environment. Digital transformation is very high on the agenda.
Russia	MED	Just starting	7%[2]	Banks focusing on reducing funding costs and boosting transactional and commission-earning business. Context very different between larger and smaller players, with larger players investing much more heavily in digital. Ongoing regulatory clean-up of the banking system, with a major ongoing reduction in the number of banks (forecasted to reduce from c. 700 to c. 300-400 in the next three years) as the Central Bank withdraws banking licenses on prudential and conduct-related grounds. In addition, the Central Bank has been providing the larger private banks with funding to "resolve" failing institutions.
Spain	HIGH	In progress	7%	Substantial capacity reduction already achieved – most asset side clean-up and cost reduction work done. Some remaining NPL issues in smaller banks, although larger ones are positioned much better. Larger banks are focused on the new agenda and are fairly advanced on digital and infrastructure replacement.
UK	HIGH	In progress / Largely complete	3%	Most successful banks are well-progressed on optimization and looking at investment and new business models. In addition to the restructuring agenda facing other EMEA banks, UK banks are also having to work through a lot of structural reform work due to ring-fencing and, of course, the macroeconomic, political, and regulatory uncertainty due to Brexit.

Just starting
In progress
Largely complete

Notes: 1. Return on Tier 1 capital. Source: ECB consolidated banking statistics, SNL, Oliver Wyman analysis
2. Top 20 Russian banks by total assets

THE NEW AGENDA

While Europe's banks have been doing what was needed to recover from the crisis, the world in which they do business has been changing.

Banking activity, including product sales and even some advisory services, has been increasingly shifting online and new specialized offerings have been emerging. Over time, this poses a threat to banks' hold on customers. Aggregators are enabling customers to shop around and use financial products from a variety of suppliers. Business platforms are looking to provide an access point to financial products, especially lending.

The EU's revised Payment Service Directive (PSD2) will further weaken banks' ownership of their customers, by forcing them to make their customers' account data and payments business available to third parties. Fintechs and internet giants will aim to capture profitable capital-light parts of the banking value chain, reducing banks to the role of utility suppliers of balance sheets.

At the same time, advances in data communication and analysis are allowing many formerly people-intensive processes, such as key steps in opening accounts or assessing credit applications, to be automated. That might sound like good news for banks with expensive operating models. However, many of Europe's banks remain burdened by complex legacy IT systems. This has prevented them from delivering frictionless customer processes and matching the cost base of new entrants.

In short, European banks may have finally recovered from the crisis and its aftermath, only to find they face a very challenging competitive position along with expensive operating models. While major changes have been made since 2009, the future agenda is going to require boldness of a different kind: not just restructuring but changes to the business model itself. Banks in some countries are still recovering from the reputational damage of the financial crisis, and will need to invest in brand enhancement and demonstrating what they bring to society.

In this section, we highlight six items for the new agenda:

- Responding to changing buying behavior.
- Upgrading and replacing legacy infrastructure and processes.
- Delivering higher financial resource efficiency.
- Consolidation opportunities.
- Building a workforce of the future.
- Delivering for our societies.

2.1. RESPONDING TO CHANGING BUYING BEHAVIOUR

In our report "The State of the Financial Services Industry 2016," we argued that banking is becoming "modular." We foresaw the rise of "aggregator" platforms on which customers can compare, buy, and use banking products from a variety of suppliers in a much wider range of products. In European banking, we estimated there was a revenue opportunity for platform providers of €15 billion to €40 billion (1.5-4 percent of revenue) and, just as importantly, potential gains to customers from lower prices of €30 billion to €60 billion (3-6 percent of revenue).

This shift in revenue will take time. However, aggregators and business platforms will continue to capture market share, driving the separation of distribution and reducing customers' stickiness to producers. PSD2 and the General Data Protection Regulation (GDPR), which prevent banks from having exclusive access to their customers' data, will only reinforce this shift.

An obvious strategic response from banks is to create aggregators and platforms themselves. And many banks are doing this. For example, several French banks now provide access to accounts at other banks through their apps (see Box 1). HSBC and Santander have announced collaborations with the Tradeshift procure-to-pay platform to provide transaction finance. And Sberbank has launched an initiative to create an Alibaba-like digital marketplace for a wide range of products. We expect this trend to continue (see Box 2).

Bold investments and partnerships in this space can help position banks for the future. And, despite damage done to the banking brand in many countries by the financial crisis and misconduct, most customers feel more confident transacting through an established bank than a fintech, and banks remain more trusted with data than the information-selling business models of the major infotech firms.

Box 1: French banks' retail aggregator

The French market is advanced in the use of aggregators, which drive new business models:

- Bankin' and Linxo, the two leading independent aggregators, claim to have more than 2.5 million users between them.
- The internet bank Boursorama acquired and integrated Fiducéo, an aggregator with personal financial manager (PFM).
- Société Générale, Credit du Nord, Banques Populaires, and Caisse d'Epargne permit their clients to access third-party banks through their apps.
- The mutual insurance group MAIF has launched NESTOR, through which users can access all their bank accounts, thereby combining the power of aggregation with a trusted brand.
- Arkéa has announced the launch of Max, which helps customers aggregate and manage all their accounts, contains a payment tool linked to those accounts, and provides several digital financial coaching services.

Box 2: Xero invoice discounting

Xero is a cloud-based accounting software, popular with small businesses. It has over 150,000 subscribers in Europe, and offers a wide range of apps through its app marketplace. Several banks and other finance providers now sell loans through Xero apps. For example, businesses can access funding lines from MarketInvoice backed by all of their outstanding invoices, with limits of up to £5 million. This allows the providers to use accounting data when making credit and pricing decisions and minimizes the operational cost.

2.2. UPGRADING AND REPLACING INFRASTRUCTURE AND PROCESSES

Advances in data communication and analysis are allowing banks and their competitors to automate tasks that have to date been performed by people. This usually improves the experience for customers while simultaneously cutting the bank's operating costs, often reducing marginal transaction costs to zero. In our report "The State of the Financial Services Industry 2016," we estimated that over €60 billion of cost savings could be available across Europe, an estimate we have not changed. By our assessment, 40 percent of large European banks now view digital re-engineering as the most important cost lever.

Yet, as noted, most banks have so far been unable to materially improve their cost efficiency. The complexity of legacy systems and infrastructure has held back their efforts. Frustrated by slow or non-existent progress on costs, some European banks are adopting more radical approaches. Rather than attempting wholesale re-engineering of outdated existing infrastructure, they are increasingly relying on the complete replacement of legacy platforms either with "greenfield" build solutions or through more advanced third-party provided software. This is particularly common with regards to payment services, where banks are replacing multiple payment systems with a single, modern flexible platform that provides end-to-end visibility and control of all payments. This has led to some banks taking the opportunity to re-engineer their entire payments ecosystem and business models.

For more standardized areas, such as core banking services in retail and some parts of wealth management, this can mean building an entirely new digital bank using a cloud-based "bank in a box" solution (see Box 3). While this requires some significant upfront investment, the cost is often a fraction of the legacy IT re-engineering budgets we have become used to in recent years. In addition, this option can give banks the long-term potential to operate at a radically lower cost point, as well as increase the potential for advantages of scale.

Several greenfield digital banks are targeting cost-to-income (CTI) ratio of 30 percent or below (such as Digibank and Atom) but there are still uncertainties about when and if they will reach these ambitious targets. However, the fact that digitalization will enable cost efficiencies is already seen today; for example, Commonwealth Bank of Australia has reached a CTI ratio of 33 percent in 2016, driven by modern technological development. If approached correctly, taking advantage of the shift to digital will make banking a more flexible lower fixed-cost business.

For more complex areas of banking, this approach may be more challenging. For example, the wide range of services provided by an investment bank often cannot be covered by a single standardized solution. Instead, investment banks are replacing pieces of their infrastructure in a modular fashion (piece by piece), relying on application programming interfaces (APIs) to define the interconnectedness of the modules.

The broader use of APIs should create many more opportunities to mutualize costs and processes, such as ATM infrastructure, know your customer (KYC), and reference data (see Box 4). However, we expect most of these to remain within a country on account of national differences in regulations and processes.

Box 3: Retail greenfield infrastructure

Many banks are exploring buying, "renting," or building greenfield digital bank technologies. Some examples of long-established banks that have set up new lower-cost digital banks include:

Virgin Money	Virgin Money has announced its plans to launch a digital bank (VMDB) in collaboration with fintech start-up 10X Future Technologies. Virgin will contribute with its recognizable brand and the existing customer base of over 3.3 million customers while 10X will deliver the underlying technical platform. In this manner, the bank aims to provide a scale advantage over digital-only banks and at the same time be more nimble than the large incumbent banks with a combination of brand and fintech.
DBS Digibank	Launched in 2016 by DBS, with over $1 billion investment, Digibank offers paperless services to retail and SME customers in Indonesia and India with a suite of innovative technology. 82 percent of the customer service is handled through artificial intelligence, reducing the unit cost to about one-fifth of that of a traditional bank. The business model is simple: to provide improved customer value through a more efficient cost structure. The explicit target is to run the bank with a CTI of 30 percent, giving any excess back to the customer to ensure a competitive offering. At present Digibank offers up to seven percent interest on savings accounts (up to about $1,500), scaling down to five percent for larger deposits.
Danske Bank	In 2016, Danske Bank launched its small businesses digital hub to create a unique offering in the SME segment in Ireland. The hub is aimed to provide inspiration and advice for local businesses, including interactive business tools and inspirational blogs and videos. In parallel, Danske Bank launched its new Small Business Digital account, a completely digital service for businesses with revenue up to £1 million, including £500 cashback for new customers.
Atom BBVA	Atom received its banking license in June 2015. It became the first mobile-only bank in the UK and has recently partnered with Deposit Solutions to expand its fixed-rate products also into the German market. Since the launch, Atom has raised £219 million in capital with BBVA as the main shareholder. The business model is built around a low-cost base by leveraging open banking with machine learning to undermine the strangleholds that the big banks have today. The product range has broadened since the launch and now includes savings and current accounts, mortgage, debit cards, overdrafts, and instant access savings. However, it is not expected to expand much more in the near future as the bank has a product manufacturing policy of "the fewer the simpler, and the more transparent the better."

Box 4: Mortgage document mutualization in the Swedish market

Tambur is a joint initiative of Swedish banks to digitalize the mortgage documentation process. Historically, the process has been labor intensive, with documents passing back and forth many times. In 2015, most Swedish banks agreed to create an IT portal, Tambur, which acts as a centralized documentation filing system, containing all the documentation and logging the processes.

2.3. DELIVERING HIGHER FINANCIAL RESOURCE EFFICIENCY

Whoever wins the race to build platforms and aggregators and steer demand, Europe's banks are going to face more transparency and competition in their core products.

Delivering financial services products efficiently will require better process efficiency (and hence better technology and scale, see) but also better balance sheet efficiency.

Banks' management of their financial resources – principally, capital and liquidity – is already constrained by an array of regulations (see Exhibit 14). And this complexity will only grow as "capital floors" are implemented, stress testing becomes embedded as a prudential tool in Europe, and the capital penalties drive more European banks to adopt risk-based rather than standardized measures.

Exhibit 14: Constraints on capital and liquidity for banks

	LEVERAGE AND EQUITY CAPITAL	LIQUIDITY AND DEBT FUNDING
REGULATORY	• Basel capital • Regulatory stress-test -ased capital • Total loss absorbing capital (TLAC) • Basel leverage • Supplementary leverage ratio • Regulatory stress-test-based leverage	• Liquidity coverage ratio (LCR) • Liquidity stress test (regulatory) • Net stable funding ratio (NSFR)
INTERNAL	• Internal economic capital • Internal stress test capital • Internal leverage	• Liquidity stress test (internal) • Other internal liquidity • Internal stable funding • Encumbrance

Right now, few European banks have a framework that balances these constraints against each other. Hence, they struggle to create a clear picture of the true cost of transactions or strategic choices. Business choices are often made to maximize returns on a primary constraint, such as risk weighted assets (RWAs). But what seems an optimal decision on this partial view is often sub-optimal when all financial resource costs are considered.

Exhibit 15: Constraints on capital and liquidity for banks

Constraint	Share of firms where the constraint is one of the most binding[1]	Number of firms incorporating the constraint into decisions[2]: Performance management	Product pricing	Individual origination choices
Unstressed capital ratios	88	11	1	9
Stressed capital ratios	58	11	6	13
Leverage ratio	60	10	10	14
Liquidity/funding requirements	100	10	5	5
Large exposure standard	N/A	8	9	21

Notes: 1. Percentage of firms choosing a constraint that falls within one of those five categories (e.g. Basel capital – Advanced approach falls within "unstressed capital ratios" as one of the "top three most binding constraints"
2. Number of institutions out of a total of 48
Source: IACPM/Oliver Wyman Financial Resource Management Survey, 2016

Some European banks are addressing this problem by investing in "strategic financial resource management" tools. These aid strategic decision-making by modelling the comprehensive financial resource consumption and profit and loss (P&L) implications of actions at a granular level across the organization for multiple scenarios. This information then feeds into an improved financial planning process.

Such advances are often a case of banks making commercial use of what regulators have forced them to produce for prudential purposes. For example, the strategic resource management tools described above are a business application of the stress tests that regulators in the US, EU, and UK now require of banks (see Exhibit 15).

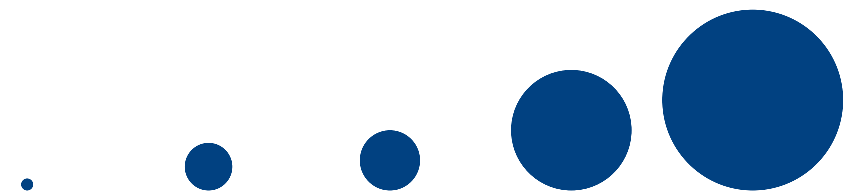
By our estimates, large European banks spend on average €600 million to €800 million a year on global compliance, operational risk, and regulatory programs with some larger banks spending much more. Many have aimed to meet the regulatory minimum standard at the least cost. But more banks are now using the mandatory spend to drive business benefits.

Besides the use of stress testing tools, some banks are taking resolution and recovery planning as an opportunity to create simpler organizations, with cheaper legal entity structures and booking models. And many are using efforts to comply with Basel risk data aggregation and reporting requirements as an opportunity to standardize data collation and management information across the bank, especially between risk and finance.

2.4. CONSOLIDATION OPPORTUNITIES

Limiting factors exist on consolidation and it is likely to continue to be a slow burn in most markets – with Italy a potential exception – as well as on a cross-border basis. Some of the markets are now heavily concentrated and further M&A among relevant players would be challenged by the authorities (for example, in the UK). Scale economies are also being achieved from relatively modest balance sheet sizes (in the €50 billion to €100 billion range) in most activities and regions (see Exhibit 16).

Exhibit 16: Minimum scale required per cost element



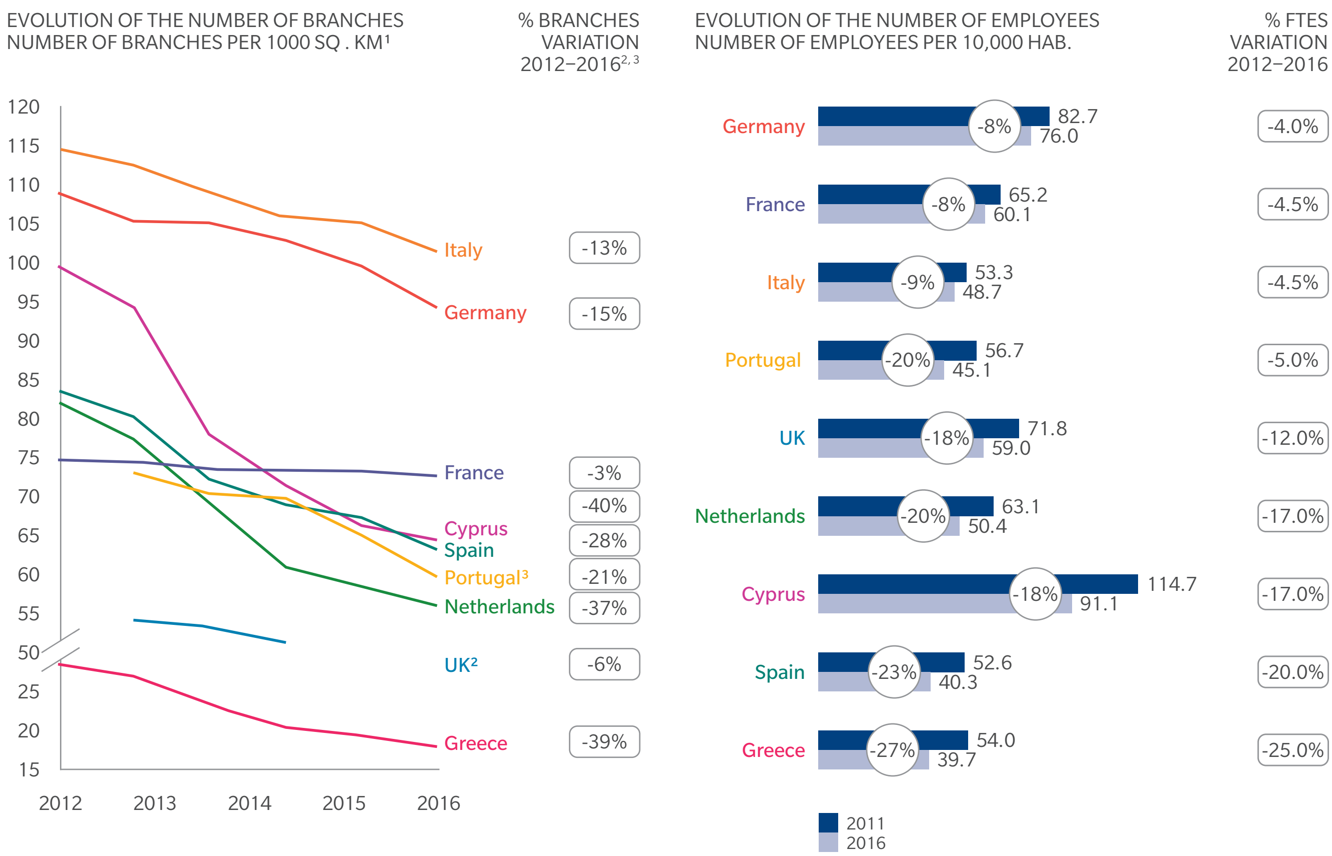
MINIMUM SCALE €BN ASSETS	8–12	35–45	45–55	90–110	140–160
ELEMENT	Product development and distribution	AIRB models development	Risk, control and compliance functions	Digital transformation of legacy bank	Access to capital markets

Note: AIRB is the advanced internal rating-based approach
Source: Oliver Wyman analysis

As Exhibit 16 shows, economies of scales are reached already at fairly low asset levels. Thus, given the size of European banks, we foresee limited consolidation activities driven by economies of scale. Many smaller banks are also less pressured on returns due to cooperative or municipal ownership structures. In addition, while banks are struggling to get their own IT infrastructure in order, they will be reluctant to complicate matters by acquiring a bank and adding yet more IT systems to deal with.

In Germany, we expect consolidation within each of the three pillars to continue. This will be a steady process that will, over time, see some of the excess capacity in the market fall. However, it is unlikely to be sufficient and eventually the economic pressures will lead to some form of consolidation across the three pillars (for example through jointly owned utilities or central service providers) in order for the German banking system to achieve sustainably scaled entities. For Italy, we expect that distressed banks will continue to provide the impetus for further consolidation in these markets, as with Intesa Sanpaolo's acquisition of Veneto and Vicenza.

Exhibit 17: Evolution of the number of branches, employees, and FTEs, 2011-2016



Notes: 1. Surface includes only country's land area;
2. Data only available for 2012-2014
3. Data only available for 2012-2016
Source: ECB, World Bank

At the pan-European level, we see little sign that cross-border consolidation will speed up (see Exhibit 17). Indeed, until the European market is truly integrated, banking is likely to continue being a country-driven industry. Nevertheless, we believe that cross-border transactions can make economic and financial sense under the right circumstances. We have identified four cases in which value can be delivered:

- Expansion within specialized businesses with clear scale benefits and larger distribution network benefits (such as banking groups with significant weight in asset management).
- Expansion into markets where significant skill transfer is expected, typically from the acquirer to the target but potentially the other way around.
- Expansion into proximity markets, resembling more an in-market acquisition than a cross-border one (for example Iberia, Benelux).
- Acquisitions of banks at well below their intrinsic value in periods of distress and dislocated markets, though these are likely to be concentrated in the markets still fragmented and undergoing their restructuring (Italy for example).

The main challenge in this space is sustaining discipline as an acquirer and not falling for overly optimistic projections as the market heats up.

2.5. BUILDING A WORKFORCE OF THE FUTURE

As banking changes, so does the workforce required by banks now and in the future. Digitalization will not only change the size but also the shape and skillset of the workforce. The automation of tasks provided by digital technology might mean that the staff who used to perform them struggle to find new ways be valuable to the bank.

As current nice-to-haves become must-haves, the demand for individualized and superior customer experience increases. This will increase the banks need for staff with capabilities such as empathy, relationship building, and adaptability to a diverse set of clients. We call this the "humanization" of banks, which, for successful players, will accompany the digitalization of the bank.

At the same time, however, banks will have an increased need for staff with skills in data science and digital technology. And, with the shelf life for skills decreasing as the rate of change increases, broad cognitive skills become more important than narrow technical expertise.

So far, banks have struggled to develop the workforce they will need. Acquiring digital talent is difficult because banks are not seen as the employer of choice. The internet giants or fintech firms have more appeal to gifted young IT engineers and data scientists. Younger employees also now demand more flexible and collaborative ways of working, which the increased attrition rates at junior levels and increased use of indirect contingent talent suggest banks are failing to provide.

Banks must keep a dual focus on both customer experience and employee experience, meet their respective demands, and customize as required.

To overcome these problems, banks need to make progress in three areas:

- **Talent management:** Engaging and motivating a diverse, multi-segmented workforce spanning different generational cohorts blending direct employees and temporary labor sourced from the extended "talent ecosystem."
- **Culture and organization:** Embedding flexible, team-based ways of working and creating an innovation-friendly environment, for example by establishing digital campuses.
- **Workforce planning:** Assessing and projecting the size and skills composition of the required future workforce, identifying gaps, and developing the strategies to fill them.

2.6.
DELIVERING FOR OUR SOCIETIES

The financial crisis triggered long-term political changes with significant implications for banks. Slowing wage growth and increased immigration to Europe, especially from refugees, has created a backlash against globalization and liberalism. Populism and nationalism will likely play larger roles in European politics and government over the coming decades.

Consequently, banks could face direct threats to their business by political intervention in business choices (such as redundancies and foreclosures), favoritism for domestic champions, or intentionally punitive regulatory or tax systems.

Digital technology is also going to bring banks' role in society to the fore. Achieving the efficiencies needed to survive implies job losses, and branch closure programs are ongoing. Moreover, big data tools and machine learning, when applied to decisions such as lending approval, open banks up to the risk of discriminating against particular customer groups.

Europe's banks have very different starting points in this challenge. Some countries have large cooperative or saving banking sectors that have as part of their mandate a commitment to supporting the local economy and community, ensuring access to banking even in remote areas, or encouraging savings. Also the predominantly profit-driven banks have over the past decade developed substantial corporate social responsibility (CSR) programs. These programs have raised funds for good causes and have seen thousands of hours of employee time volunteered.

Nonetheless, to avoid resentment building, all banks will need to help address the growing social and political imperatives. Banks can go beyond being "good corporate citizens" and own the solutions to major challenges. For example, Western Union has developed a money transfer service for refugees (one of its growing core segments) and Barclays has established an in-house social innovation facility, driving over 45 social impact projects across its whole business line.

In places, a mind-set shift is required to inherently support society through the activity of the banking business. Other actions that would go far beyond existing CSR efforts could include:

- **Taking responsibility for solving societal challenges** – in the UK, banks have superb financial literacy initiatives that reach thousands of schoolchildren. However, if the sector owned the problem, it would ensure all children are reached and test to ensure successful outcomes.
- **Care for the workforce** – ensuring employees that have shifted to defined contribution pension schemes are saving enough for their retirement, and that staff who might be made redundant already have transferable skills.
- **Sector cooperation as the norm** – many banks have run good initiatives to improve services for vulnerable customer segments but approaches need to be widely shared and rolled out rather than banks earning credit individually.
- **Engaging in local communities** – seeing financing for community development and local starts-ups as an investment, not purely a credit approval decision.

CONCLUSION

Over the past decade, significant changes have taken place as European banks responded to the aftermath of the financial crisis. Large amounts of money and time have been spent on restructuring and reshaping existing business: divesting NPLs, exiting unprofitable geographies and business lines, and addressing new regulations. However, the challenges on the horizon are likely to affect the banking business model itself.

Many European banks are still working on restructuring at a time when management attention needs to also be focused on the future business model. Meeting the challenges of the new agenda – responding to changing customer behavior, upgrading infrastructure, delivering for our societies – requires banks to build new capabilities, working approaches, and partnerships.

Banks that are able to fully concentrate on this new transformation will have an important advantage over peers as we enter the next decade. However all banks need to find ways to prepare and make initial steps on the journey.

ABOUT OLIVER WYMAN

Oliver Wyman is a global leader in management consulting. With offices in 50+ cities across nearly 30 countries, Oliver Wyman combines deep industry knowledge with specialized expertise in strategy, operations, risk management, and organization transformation. The firm has more than 4,500 professionals around the world who help clients optimize their business, improve their operations and risk profile, and accelerate their organizational performance to seize the most attractive opportunities. Oliver Wyman is a wholly owned subsidiary of Marsh & McLennan Companies [NYSE: MMC]. For more information, visit www.oliverwyman.com. Follow Oliver Wyman on Twitter @OliverWyman.

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