

## ANALYSIS

# The impact of digitalisation on bank profitability

Financial stability | 29.05.2019 | Otso Manninen, Kimmo Koskinen

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The profitability of the European banking sector is weaker than 10 years ago or compared with banks outside the EU. However, the average figures conceal market differences among EU banks. Responding to digitalisation in the financial sector necessitates substantial efforts from banks. A major problem for banks is that IT investments that will boost productivity over the long term will often weaken it in the short term.



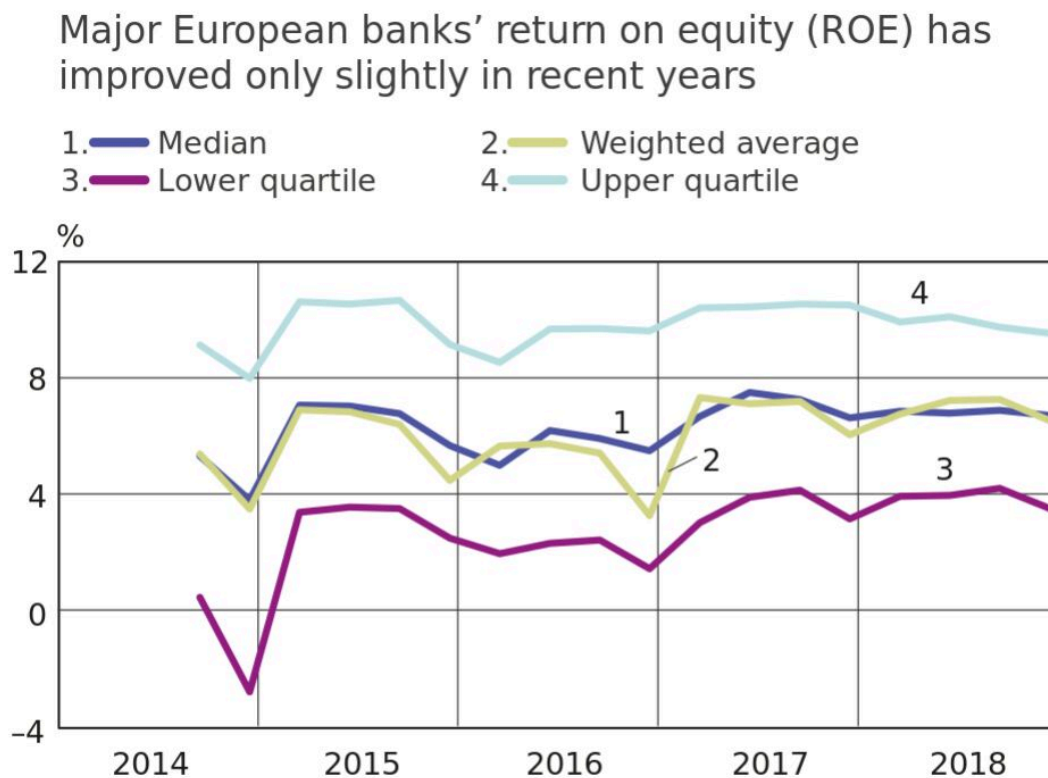
## Subdued profitability outlook for European banking sector

Despite a slight improvement in recent years, the profitability of European banks has remained

rather challenging, on average. Higher market volatility, escalation of political risks and a weaker outlook for the global economy dragged down banks' profitability expectations in the latter half of 2018.

Low interest rates and a weaker operating environment have eroded the net interest income of European banks, in particular, even though bank lending has begun to grow again slightly in the past few years. Net interest income continues to constitute a key source of income for banks, and many banks have not succeeded in finding sufficient alternative revenue streams to replace it. Income performance has been widely reflected in the prices of European banks' shares, as investors have lowered their inflation and interest rate expectations and hence also return expectations related to banks' net interest income. The markets and banks themselves assume that banks' return on equity will not improve notably in the immediate years ahead.<sup>1</sup>

Chart 1.



Source: European Banking Authority (EBA).

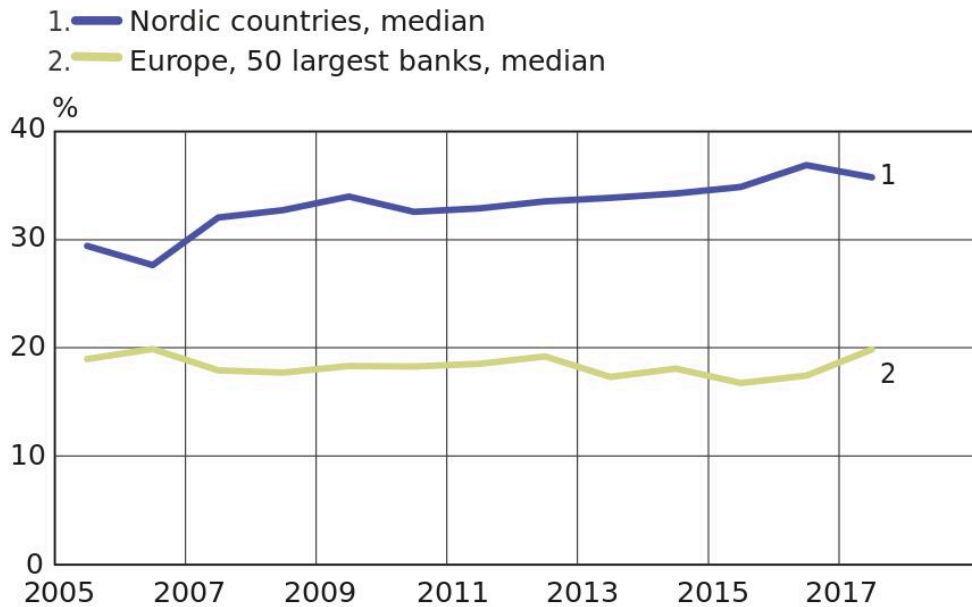
Banks continue to suffer from many long-term structural issues. In many major European countries, banks' cost structure is heavy and the banking sector is large relative to the size of the economy. In the years to come, banks must respond to the challenges brought by major trends such as digitalisation. Investment in IT systems, R&D and new operating models necessitate significant efforts from banks, while at the same time exposing them to risks associated with changes.

As a legacy of the financial and sovereign debt crises, EU banks have significant volumes of non-performing loans (NPLs) on their balance sheets.<sup>2</sup> According to the European Banking Authority (EBA), the total volume of NPLs in Europe as a whole amounts to EUR 637 billion, which is 3.2% of all loans (Q4/2018). However, NPLs are not evenly distributed among banks.

Despite recent years' positive developments, bad loans and credit losses continue to weigh on bank profitability. Banks have set aside capital to cover losses arising from NPLs, which makes new lending more difficult. One solution to the problem would be to sell the bad loans. However, this would require more write-downs from banks, which in turn would necessitate more capital banks do not necessarily have. This is why the sale of bad loans has proven to be a slow process.

Chart 2.

## Nordic banks allocate more funds to IT investment than European banks on average



Source: S&P Global Market Intelligence.

15.4.2019  
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## Why is banking sector profitability important?

A profitable banking sector can supply loans to the real economy – i.e. finance business investment – and thus underpin economic growth. Small and medium-sized enterprises, which are highly important for economic growth and employment, are particularly dependent on bank loans. Measures to strengthen bank balance sheets focus especially on the riskiest loan segments, such as loans to SMEs.

If the profitability of the banking sector is low, banks are also more prone to run into difficulties during downswings in the economy. Low profitability can scarcely provide a robust buffer when loan losses increase. Higher loan losses reduce bank capital, and banks are forced to cut lending. Hence, bank profitability has a direct impact on financial intermediation and financial stability.

# Digitalisation of operations is an investment in the future

Many measures to improve banking sector profitability over the long term weaken profitability in the short term. The transition from an institution with a heavy branch network into an agile bank of the digital age and reducing NPLs necessitates substantial efforts. Investment in IT systems, R&D and new operating models require considerable resources and capital and expose banks to the risks associated with changes. On the other hand, without the transformational changes, banks may fall behind in the very developments that will contribute to creating future success stories.

In the years to come, banks must respond to the challenges brought by major trends such as digitalisation. Digitalisation is progressing in the financial sector, as other parts of society are going digital and consumers are increasingly shifting to using mobile services.

Many banks have constructed their IT systems in the course of several decades. These legacy systems are expensive to maintain and do not enable banks to reap the full benefits of digitalisation. The full exploitation of digitalisation requires that bank systems be compatible and processes can be digitalised.

Chart 3.

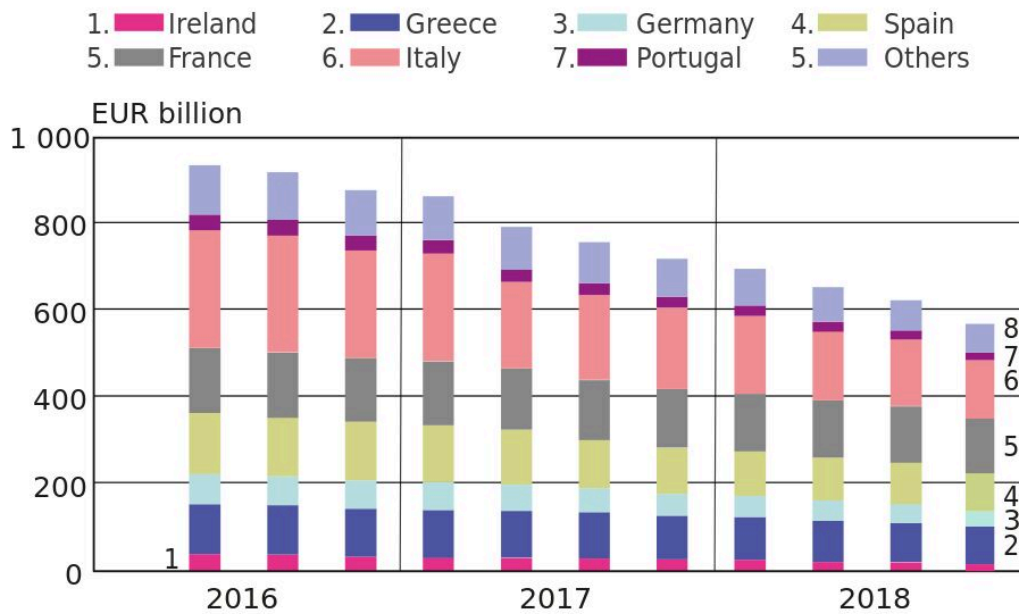
Operating model	Accounts and account transfers	Card payments	Consumer credit	Housing loans	Investment	Branch network	Internet	Mobile	Online negotiations	Digital onboarding	Digital consumer credit	Digital housing loan	APIs	Robo-advisory	Blockchain
International universal bank	X	X	X	X	X	X	X	X	X		X			X	X
Domestic universal bank	X	X	X	X	X	X	X	X	X		X			X	X
International universal bank	X	X	X	X	X	X	X	X	X		X	X	X		X
Domestic universal bank	X	X	X	X	X	X	X	X	X			X	X	X	
International universal bank	X	X	X	X	X	X	X	X		X			X		
International universal bank	X	X	X	X	X	X	X	X		X			X	X	X
Domestic universal bank	X	X	X	X	X	X	X	X			X	X	X	X	X
Consumer credit provider			X				X	X		X	X		X		
Challenger bank	X	X						X		X			X		
Consumer credit provider		X	X					X		X	X				
Payment transfer	X							X		X			X		

Modernisation of IT systems involves risks. Many banks have launched substantial IT projects but have found that the project costs and timetable have changed considerably from what was initially envisaged. Together with weak profitability, this poses a challenge as to whether all banks can make the investments needed to modernise themselves.

However, IT investments alone will not strengthen bank profitability. In many European countries, banking is still highly branch-oriented and the branch network is relatively extensive.<sup>3</sup> Cutting branch networks and personnel improves profitability in principle, but it can be extremely costly in the short term. In addition, the pace of change depends on the progress made by competitors and the time needed by customers to adopt new banking technology.

Chart 4.

### Decline in the volume of non-performing loans of major banks in selected countries



Source: SSM.

15.4.2019  
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Digitalisation of banks is expected to improve bank profitability in the long term, as it should enable operations with a lighter cost structure. Digital activities require fewer branches and less personnel because the majority of service production is automated. In their visions, banks particularly rely on new technologies, such as artificial intelligence (AI) and blockchain. These should ensure that the benefits of digitalisation will also be reflected in bank profitability.

## Digitalisation opens doors for new competitors

Digitalisation blurs the boundaries between digital and other services and opens the banking industry to greater competition. It enables new actors, such as cross-border digital banks or fintech start-ups. It also enables the provision of certain services (e.g. payment services) by major technology companies (e.g. Apple, PayPal and Google).

There are significant differences in the universal banking model of traditional banks and the operating concepts of new actors. Universal banks provide all financial services in one or a few markets, while new actors focus on a few services and provide them in all markets.

New actors also strive to provide services that are less strictly regulated and can be produced without capital deployed on the balance sheet. They operate with as light an organisation as possible and utilise external service providers. By supplying their customers with the products of other service providers, new actors can offer a broader range of services with a lower cost structure. New actors also create new competition in the area of pricing and the usability of services. Furthermore, as a rule, new actors do not have physical customer service points.

## The impact of new competitors on banks' business models

Services provided by new competitors are often in the business areas where banks earn the largest service fees. Even when competitors cannot capture significant market shares from banks, they force banks to lower their prices in business segments which have traditionally been the most profitable for the banks. On the other hand, higher competition is advantageous to customers, as it increases service provision and lowers prices. However, new services create new risks (e.g. those related to cyber security and data).

Banks are preparing for the new form of competition and demand for mobile services by reforming their business models – i.e. their range of services and the way these services are provided. As part of this process, banks are exploring new technologies, such as AI and blockchain (Table 1). Banks are now increasingly collaborating with various new actors and have, for example, launched accelerator programmes and invested in fintech companies.

Banks are moving at very different speeds in digitalisation. The most advanced banks readily present their digital strategies and IT system reforms and experiment with new methods to produce services. However, the new activities and experiments are still reflected only to a limited extent in banks' financial results and balance sheet figures. In the Nordic countries, many banks have already started investing in the necessary transformation, but for banks elsewhere in Europe this work is still in its infancy.

Table1.

Examples of banks leading in digitalisation<sup>4</sup>

Chart 5.

Operating model	Accounts and account transfers	Card payments	Consumer credit	Housing loans	Investment	Branch network	Internet	Mobile	Online negotiations	Digital onboarding	Digital consumer credit	Digital housing loan	APIs	Robo-advisory	Blockchain
International universal bank	X	X	X	X	X	X	X	X	X		X		X	X	X
Domestic universal bank	X	X	X	X	X	X	X	X	X		X		X		X
International universal bank	X	X	X	X	X	X	X	X	X		X		X		X
Domestic universal bank	X	X	X	X	X	X	X	X	X			X	X	X	
International universal bank	X	X	X	X	X	X	X	X		X			X		
International universal bank	X	X	X	X	X	X	X	X		X			X	X	X
Domestic universal bank	X	X	X	X	X	X	X	X			X	X	X	X	X
Consumer credit provider			X				X	X		X	X		X		
Challenger bank	X	X						X		X			X		
Consumer credit provider		X	X					X		X	X				
Payment transfer	X							X		X			X		

## Footnotes

1. Banks' return on equity (ROE) is expected to improve by no more than slightly over 1 percentage point, to 8%, by 2020. In the third quarter of 2018, EU banks' average ROE was 6.9%. ↑
2. Non-performing loans (NPLs) refer to loans where the borrower has had difficulties in repaying the loan as planned. NPLs have been strictly defined, and a short delay in payment or an interest-only period agreed with the bank does not make a loan into an NPL. NPLs are also referred to as problem loans or bad debt. ↑
3. Excluding the Nordic countries. For more information on the situation in the Nordic countries, see the article 'Nordic banks go digital' at: <https://www.bofbulletin.fi/en/2018/2/nordic-banks-go-digital/>. ↑
4. A comparison of banks based on information reported by the banks themselves. The letter 'x' denotes that the bank has at least advanced plans in the area in question. In cases where the service is not yet provided to customers, the assessment is based on an expert assessment. The data has been slightly modified to prevent the identification of individual banks. The table is only a simplified example of a follow-up framework and does not reflect the actual state of banks. ↑

## Key words

banks, digitalisation, profitability