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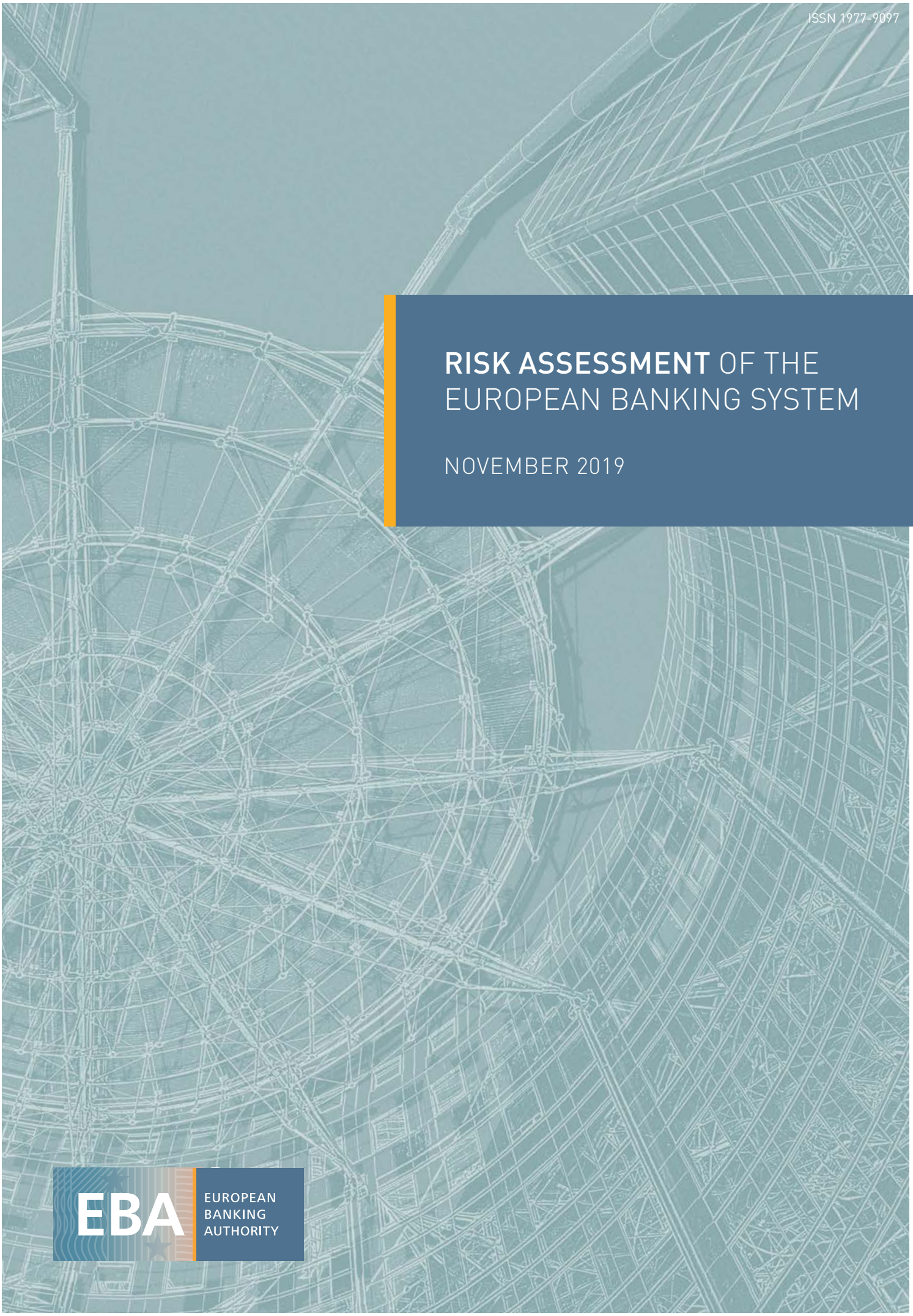

RISK ASSESSMENT OF THE EUROPEAN BANKING SYSTEM

NOVEMBER 2019

EBA EUROPEAN BANKING AUTHORITY

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Abbreviations

ABS	asset-backed security
AML	anti-money laundering
AT1	additional tier 1
bp	basis point
BRRD	Bank Recovery and Resolution Directive
CCoB	capital-conservation buffer
CCyB	countercyclical capital buffer
CEE	central and eastern European
CET1	Common Equity Tier 1
CIR	Cost-to-income ratio
CoE	cost of equity
CRD	Capital Requirements Directive
CRE	commercial real estate
CRM	customer-relationship management
CRR	capital requirements regulation
CTF	counter-terrorist financing
DGSD	Deposit Guarantee Schemes Directive
DLT	distributed-ledger technology
EBA	European Banking Authority
ECB	European Central Bank
EME	emerging market economy
ESA	European Supervisory Authority
FBL	forborne loan
Finrep	financial supervisory reporting
FinTech	financial technology
FX	foreign exchange
GAAP	generally accepted accounting principles
GDPR	General Data Protection Regulation
G-SII	global systemically important institutions
IBOR	interbank offered rate
ICT	information and communications technology
IFRS	International Financial Reporting Standard
IMF	International Monetary Fund
IRB	internal ratings based
IT	Information technology
ITS	implementing technical standards
L1/L2/L3	Level 1/2/3 assets or liabilities in the meaning of IFRS 13
LCR	liquidity-coverage ratio
LIBOR	London interbank offered rate
LTRO	long-term refinancing operation
M&A	mergers and acquisitions
ML	money laundering
MREL	minimum requirement for own funds and eligible liabilities
NACE	general industrial classification of economic activities within the European Union
NBFI	Non-bank financial intermediaries
NFC	non-financial corporation
NFCI	net fee and commission income
NII	net interest income
NIM	net interest margin
NOI	net operating income
NPE	non-performing exposure
NPL	non-performing loan
NTI	net trading income
OCI	other comprehensive income
OSII	other systemically important institutions
P&L	profit and loss
pp	percentage point
PPI	payment protection insurance
PSD	Payments Services Directive
PtB	price to book

RAQ	risk assessment questionnaire
RAR	risk assessment report
RFR	risk-free rate
RoA	return on assets
RoE	return on equity
RoRWA	return on risk-weighted assets
RWA	risk-weighted asset (corresponds to risk exposure amount (REA))
SME	small and medium-sized enterprise
SONIA	Sterling Overnight Index Average
SRB	Single Resolution Board
SREP	supervisory review and evaluation process
SSM	Single Supervisory Mechanism
SyRB	Systemic-risk buffer
T2	Tier 2
TF	Terrorist financing
TLAC	total loss-absorbing capacity
TLTRO	targeted long-term refinancing operation
UTP	unlikely to pay
YoY	year on year

Executive summary

EU banks assets rose by 3 % between June 2018 and June 2019. The increase was driven mainly by the growth in loans and advances and debt securities. Loans to households increased by 3.4 %, strongly supported by consumer lending (+ 5.3 %). Lending to non-financial corporations (NFCs) grew by 2.8 %, with a particularly strong increase in small and medium-sized enterprise (SME) lending (3.1 %). Although its expansion was rather subdued in 2019, commercial real estate exposures (CREs) were the segment with the biggest growth rates along with SME and consumer credit since 2014. Banks' focus on rather riskier segments shows their search for yield in an environment of low interest rates and shrinking margins.

Asset quality has continued to improve, although at a slower pace compared to previous years. The non-performing-loan (NPL) ratio declined from 3.6 % in June 2018 to 3 % in June 2019. The coverage ratio contracted by 110 basis points (bps) to 44.9 % at the same time. A comparison of the movements of NPL and coverage ratios indicates that banks that consistently apply timely and higher provisioning policies might be in a better position to dispose of NPLs, as sufficient coverage lowers the effect of disposals on capital. Looking ahead, even though banks plan to increase loan volumes, they are at the same time more pessimistic about asset-quality prospects. Responses to the risk-assessment questionnaire (RAQ) show that an increasing percentage of banks expect a deterioration of asset quality for the major segments. The focus on riskier exposures over the past few years combined with a weakening macroeconomic outlook might complicate further asset quality improvement.

Funding conditions have improved, supported by yields at historical low levels and narrowing spreads. The volatility registered in the last quarter of 2018 and the beginning of 2019 receded as expectations of further monetary-policy accommodation arose. In this context, banks have progressively moved their focus in primary-market activity from covered bonds towards minimum requirement for own funds and eligible liabilities (MREL) instruments. The decrease in rates have also led some banks to charge or consider charging negative rates to NFCs and households deposits above certain thresholds.

After material progress over the past few years, the Common Equity Tier 1 (CET1) ratio remained broadly unchanged year on year (YoY), standing at 14.4 % on a fully loaded basis as of June 2019. This period was characterised by a parallel increase of risk-weighted assets (RWAs) (2.5 % YoY) and CET1 (3 % YoY). Credit risk, which makes up 80 % of total RWA, increased by roughly 2.3 % since June 2018. This is lower than the growth in total assets (3 %) and even significantly less than the rise in total loans (3.5 %). These developments indicate that credit RWAs are driven not only by trends in banks' assets, but also by changes in the composition of banks' exposures and risk parameters. Buffers applied for other systemically important institutions (OSII) vary widely among countries, partly indicating differences in the structure of national banking systems, but also indicating no harmonised application.

Profitability remains at low levels and, for many banks, return on equity (RoE) is still below their cost of equity (CoE). The RoE for EU banks decreased slightly from 7.2 % to 7 % in 2019. The deteriorating macroeconomic environment along with low interest rates and intense competition not only from banks, but also from financial technology (FinTech) firms and other financial players is expected to add further pressure to bank profitability. In this challenging environment, banks point at the streamlining of operating expenses as the main area to improve profitability. However, over the past few years banks have struggled to adapt the evolution of their operating expenses to the fall in net operating income.

The pervasiveness of technology in digitalised banking and increasing numbers of

money laundering/terrorist financing (ML/TF) cases are some of the key drivers for constantly elevated operational risk. Despite the decline in losses related to operational risks, the increasing sophistication of technology in banking and payment services poses a challenge in terms of ICT systems management and data protection. Cyber-attacks and data breaches represent major concerns for banks. In addition, the occurrence of ML/TF scandals may imply corresponding legal and reputational costs.

Introduction

This report describes the main developments and trends in the EU banking sector since the end of 2018 and provides the European Banking Authority (EBA) outlook on the main risks and vulnerabilities ([1]). As in 2018, the November 2019 risk assessment report (RAR) is published along with the EU-wide 2019 transparency exercise.

- The RAR is based on qualitative and quantitative information collected by the EBA. The report's data sources are the following:
- EU supervisory reporting,
- the EBA RAQ (addressed to banks and market analysts),
- market data as well as microprudential qualitative information and supervisory college information.

The RAR builds on the supervisory reporting data submitted to the EBA on a quarterly basis by competent authorities for a sample of 183 banks from 30 European Economic Area (EEA) countries (147 banks at the highest EU level of consolidation from 27 countries) ([2]). Based on total assets, this sample covers about 80 % of the EU banking sector. In general, the risk indicators are based on an unbalanced sample of banks, whereas charts related to the risk indicator numerator and denominator trends are based on a balanced sample. The text and charts in this report refer to weighted-average ratios if not otherwise indicated ([3]).

The RAQ is conducted by the EBA on a semi-annual basis, with one questionnaire addressed to banks and another addressed to market analysts ([4]). Answers to the questionnaires were provided by 65 European banks (Annex I) and 13 market analysts during September and October 2019. The report also analyses information gathered by the EBA from informal discussions as part of the regular risk assessments and ongoing dialogue on risks and vulnerabilities of the EU banking sector. The cut-off date for the market data presented in the RAR was 30 September 2019, if not otherwise indicated.

The EBA is disclosing, in parallel with the RAR, bank-by-bank data as part of the 2019 EU-wide transparency exercise for four reference dates (September 2018, December 2018, March 2019 and June 2019). The transparency exercise is part of the EBA's ongoing efforts to foster transparency and market discipline in the EU internal market for financial services, and complements banks' own Pillar 3 disclosures, as set out in the EU's capital requirements directive (CRD). The sample in the 2019 transparency exercise includes 131 banks at the highest EU level of consolidation, from 27 EEA states ([5]). The EU-wide transparency exercise fully relies on supervisory reporting data.

([1]) With this report, the EBA discharges its responsibility to monitor and assess market developments and provides information to other EU institutions and the general public, pursuant to Regulation (EU) No 1093/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Banking Authority), and amended by Regulation (EU) No 1022/2013 of the European Parliament and of the Council of 22 October 2013.

([2]) Data as of the reporting date 30 June 2019.

([3]) There might be slight differences between some of the risk indicators covered in the Q2 2019 version of the risk dashboard, published on 4 October 2019, and this report as a result of data resubmissions by banks. The EBA risk dashboard is available online (https://www.eba.europa.eu/risk-analysis-and-data/risk-dashboard). The annex to the risk dashboard also includes a description of the risk indicators covered in this report and their calculation, and further descriptions are available in the EBA's guide to risk indicators (http://www.eba.europa.eu/risk-analysis-and-data/risk-indicators-guide).

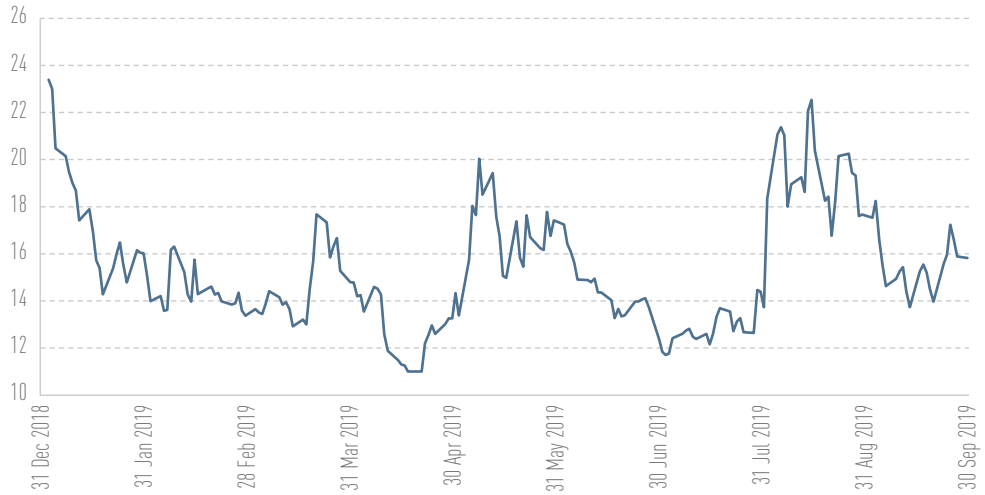
([4]) The results of the RAQ are also published separately, together with the EBA's risk dashboard, on a semi-annual basis.

([5]) A list of banks covered by supervisory reporting, by transparency exercise and by RAQ is included in Annex I.

1. Macroeconomic environment and market sentiment

In 2019, the combination of weaker economic indicators, an escalating trade conflict between the United States and China, geopolitical tensions in different regions such as the Middle East and Asia, the prolonged Brexit negotiations and political uncertainty in some Euro area countries have deteriorated the world economic outlook. RAQ responses also confirm that the geopolitical risks and political uncertainty both inside the EU (38 % of market analysts) and outside the EU (46 % of market analysts) negatively influence the market sentiment. These developments have in turn affected financial markets, which have experienced several periods of elevated market volatility in 2019 (Figure 1). During the second half of 2019 volatility has resurged to levels experienced at the beginning of the year.

Figure 1: Euro STOXX volatility index
Source: Bloomberg, EBA calculations



Subdued economic growth

These developments have also resulted in downward revisions of growth forecasts. Global growth is estimated to slow to levels not seen since the financial crisis, reaching 2.9 % in 2019 and 3.0 % in 2020 ([6]). Investment and demand for consumer durables have been subdued across advanced and emerging market economies (EMEs), mainly because firms and households continue to hesitate on long-term spending.

Similar to the global developments, gross domestic product (GDP) growth remains subdued in the EU. It was recently revised downwards and is now projected to stand at 1.4 % in 2019, 2020 and 2021, according to the European Commission forecasts ([7]). Low interest rates, modest fiscal easing and wage growth are supporting household consumption in the EU. Nevertheless, weak external demand and low confidence put downward pressure on investment and exports.

The labour market in the EU has continued to improve. In the second quarter (Q2) of 2019, employment increased by 1 % compared to the previous year. In line with the economic outlook, employment growth is expected to be more moderate. Currently, a major risk for the positive labour market conditions is a slowdown in the manufacturing sector and its spill over to the service sector.

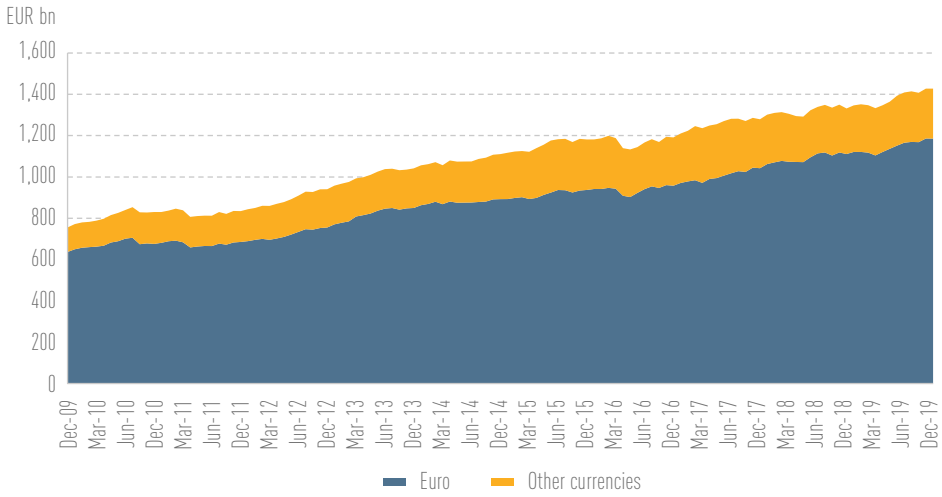
([6]) Organisation for Economic Cooperation and Development (OECD) *Interim Economic Outlook* (September 2019).

([7]) European Economic Forecast (Autumn 2019).

Increased levels of corporate debt poses an imminent risk

The outstanding amount of debt securities issued by NFCs in the Euro area has almost doubled in the last 10 years, rising from EUR 0.8 tn to EUR 1.4 tn (Figure 2). An adverse development in the world economy could reduce NFC earnings significantly, which could trigger a loss of market confidence and consequently a widespread sell-off of corporate debt. This might particularly affect non-investment-grade corporate debt and further amplify a recession or a sharp slowdown of growth.

Figure 2: Debt securities issued by NFCs by currency denomination in the Euro area
Source: ECB, EBA calculations



Downside risks are on the rise

Looking forward, downside risks are increasing. Uncertainty about trade policies continues to increase. Currently, politically unstable and indebted emerging markets, for example Turkey, are the most affected. However, the development can spread further across emerging, but also developed markets. In addition, in the case of a no-deal Brexit, the growth outlook of the United Kingdom and EU would further deteriorate and increase political uncertainty in the short term.

United Kingdom withdrawal from the EU (Brexit): short-term financial stability risks and preparedness for a 'cliff-edge' scenario

The EBA, in coordination with the other European Supervisory Authorities (ESA) and the EU Commission, is closely monitoring Brexit-related developments to understand the potential risks. In particular, the EBA has focused on the need for effective preparations by the industry, and has supported this work by issuing a number of Opinions and communications ([8]).Whilst the EU considers that the best approach is an orderly Brexit through the ratification of the Withdrawal Agreement, firms still need to prepare for all outcomes, including a possible no-deal Brexit on 31 January 2020.

In the June 2018 Opinion, the EBA outlined specific areas of concern (or risk channels) that financial institutions should duly consider in their contingency planning in the event of a United Kingdom withdrawal without an agreement, including: access to financial market infrastructure; ability to perform contractual obligations under the existing contracts, including performance of ancillary services or actions; access to funding markets; transfer and storage of personal data; use of United Kingdom law in issuances of MREL eligible instruments – all without a need for public sector solutions, and since the prime responsibility for Brexit preparedness is with firms. Furthermore, the EBA stressed that financial

([8]) See respective documents as published by the EBA, https://eba.europa.eu/documents/10180/1756362/EBA+Opinion+on+Brexit+Issues+%28EBA-Op-2017-12%29.pdf, https://eba.europa.eu/documents/10180/2137845/EBA+Opinion+on+Brexit+preparations+%28EBA-Op-2018-05%29.pdf, https://eba.europa.eu/-/the-eba-calls-for-more-action-by-financial-institutions-in-their-brexit-related-communication-to-customers, https://eba.europa.eu/-/eba-recommends-maintaining-protection-of-depositors-in-case-of-a-no-deal-brexit, https://eba.europa.eu/documents/10180/2988067/EBA+Communication+on+Brexit.pdf

institutions should identify and seek all necessary authorisations and regulatory permissions/approvals both in the United Kingdom and the EU27 in order for them to be in place by January 2020.

The EBA has also emphasised the need for appropriate communication to customers, especially retail customers, by the affected institutions. These messages were further reinforced in the additional public communication in December 2018. Moreover in October 2019, the EBA published a communication highlighting that effective contingency planning efforts must continue, to ensure that assets, appropriate staff and data are in place to support relevant authorisations and to ensure that adequate customer communications are made.

The EBA, together with the competent and resolution authorities, has continued to monitor progress since the June 2018 opinion. Based on the EBA's observations, in response to that Opinion, there has been progress by financial institutions in many areas. Supervisors inform the EBA that contingency planning has advanced and that significant more institutions have implemented the necessary parts of their contingency plans. In particular, more institutions have applied for the necessary licences and are in the process of relocating their businesses. They claim to have made progress in diversifying access to funding, introducing contractual bail-in clauses into newly issued MREL instruments and introducing contractual clauses to facilitate data transfers.

In the area of clearing, namely on how to address the stock of centrally cleared derivatives, where there was a financial stability risk in case of no-deal Brexit, the Commission, working with ESAs, has adopted a time-limited and strictly conditional equivalence decision, followed by temporary recognition by ESMA of the United Kingdom based CCPs.

The EBA's Opinions and communications remain valid and the EBA stresses the importance of avoiding empty shells by ensuring that the movement of people, assets, data and business effectively follows relevant authorisation requests and is duly supervised in the EU. The EBA has also insisted upon the need for industry to continue with customer communications in relation to areas that may be affected due to a no deal Brexit, such as in relation to payments services or to issues related to the Funds Transfer Regulation, under which important client detail updates may be required. The EBA has strongly advised industry to use the time afforded during the extension period to close such gaps and engage in customer communications accordingly, without relying on further public measures.

Furthermore the EBA also highlighted the need for adequate depositor protection and recalls the December 2018 communication ([9]) which called upon Deposit Guarantee Schemes Designated Authorities (DGSDAs) to ensure that depositors in the branches of the UK credit institutions in the EU are adequately protected by the EU deposit guarantee schemes (DGSs), in case of a withdrawal of the UK from the EU with no ratified agreement in place.

In addition to these areas the EBA has highlighted other potential risks which may stem from market volatility and turbulence, should such cliff edge scenario materialise, and also its interaction with other known economic vulnerabilities. Such turbulence may affect liquidity, thus financial actors should be considering this in their planning.

([9]) See https://eba.europa.eu/-/eba-recommends-maintaining-protection-of-depositors-in-case-of-a-no-deal-brexit

Monetary policy moving towards more easing

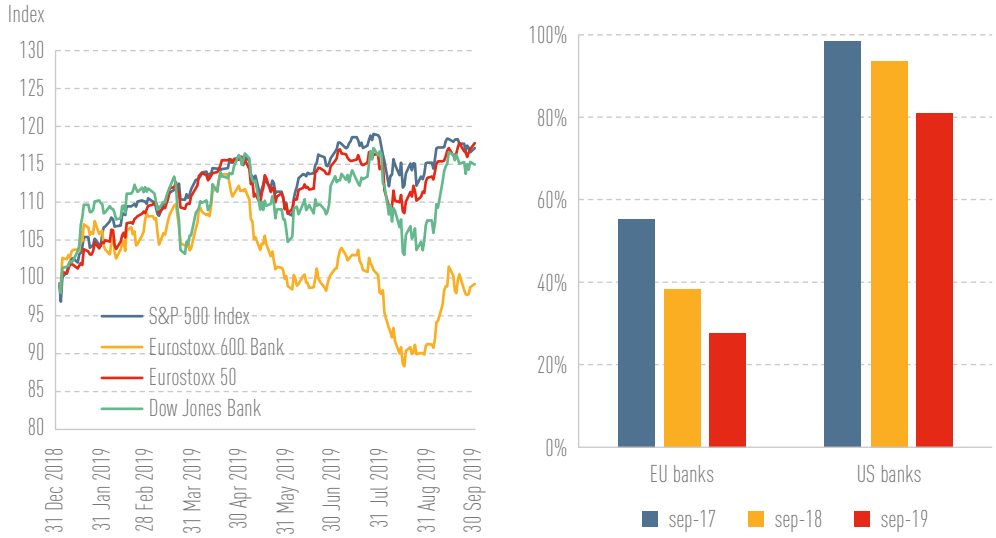
In September 2019, the European Central Bank (ECB) announced the final terms of the new series of targeted longer-term refinancing operations (TLTRO III), the restart of the Asset Purchase Programme and a further cut in the interest rate of the deposit facility by 10 bps. The aim is to preserve favourable bank lending conditions and support the accommodative stance of monetary policy. In the United States, the Federal Reserve ('the Fed') lowered its interest rate for the third time in 2019 (a cut of 0.25 %) and suggested a pause in cuts in the near future.

Bank valuations constantly under pressure

Equity prices have, in general, increased in both the EU and the United States (Figure 3), yet the stocks of banks have underperformed

those of NFCs. This is not least related to a generally subdued profitability outlook linked to, among other aspects, decreasing margins, high cost structures, ongoing business model adjustments and the challenges related to digitalisation and FinTech (see textbox on FinTech in Chapter 5.1). Market data shows that the share of EU banks trading at a price to book (PtB) ratio above 1 decreased from 55 % in September 2017 to 28 % in September 2019 (Figure 3). For United States banks, the share of banks trading at a PtB ratio above 1 also decreased but at a much slower pace than EU banks' percentages: 98 % in September 2017 to 81 % in September 2019.

Figure 3: United States and EU equity price indices (left) and share of United States and EU banks with a PtB > 1 (right)
Source: Bloomberg, EBA calculations ([10])



([10]) EU banks sample is composed of 47 banks and the United States banks sample of 63 banks. Equity prices indexed to 100 at 2 January 2019.

2. Asset side

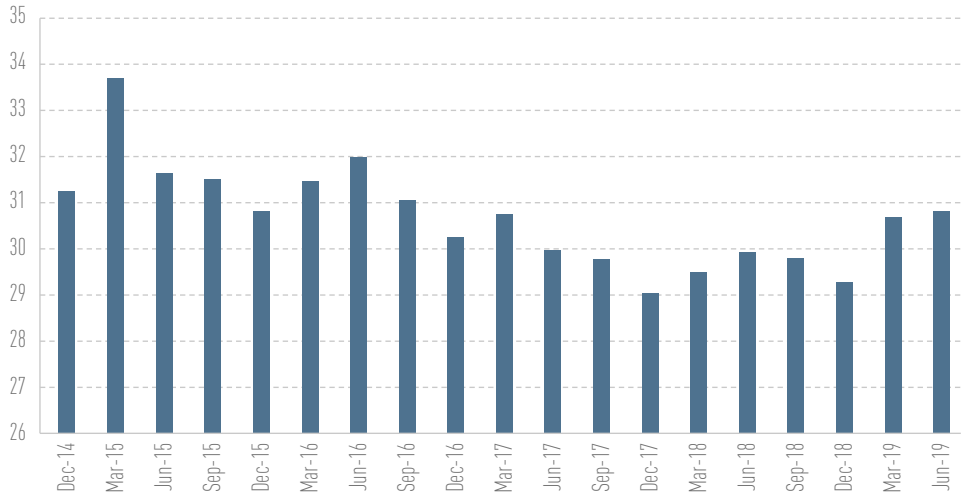
EU banks' balance sheet deleveraging ended as banks increased their total assets by 3 % between June 2018 and June 2019. This was strongly supported by growing loans and advances, which form the biggest share of banks' assets. Asset quality has further improved, albeit at a decreasing pace compared to previous years. Although there is still significant dispersion in NPL ratios, countries with heightened NPL ratios have managed to decrease considerably both NPLs volumes and ratios. Nonetheless, the expansion of certain segments, in particular of unsecured exposures with historically higher delinquencies, not least driven by banks' search for yield pose a significant risk going forward.

2.1. Asset volume developments

The end of the EU banks' deleveraging cycle

Data indicates that, following the deleveraging cycle of the EU banking sector in the preceding years, asset volumes increased by 3 % between June 2018 and June 2019. As of June 2019, total assets of the banks covered by this report amounted to EUR 30.8 tn, up from EUR 29.9 tn a year ago (Figure 4).

Figure 4: Trend of total assets volumes (EUR tn)
Source: EBA supervisory reporting data



Loans and advances, which have the biggest share in total assets (63 %), increased by EUR 650 bn (or 3.5 % YoY) driven by economic recovery, lower unemployment, strengthened consumer confidence and low interest rates in many countries (see Chapter 1) ([11]). The latter has in some cases induced a search for yield, implying in particular an increase in riskier exposures.

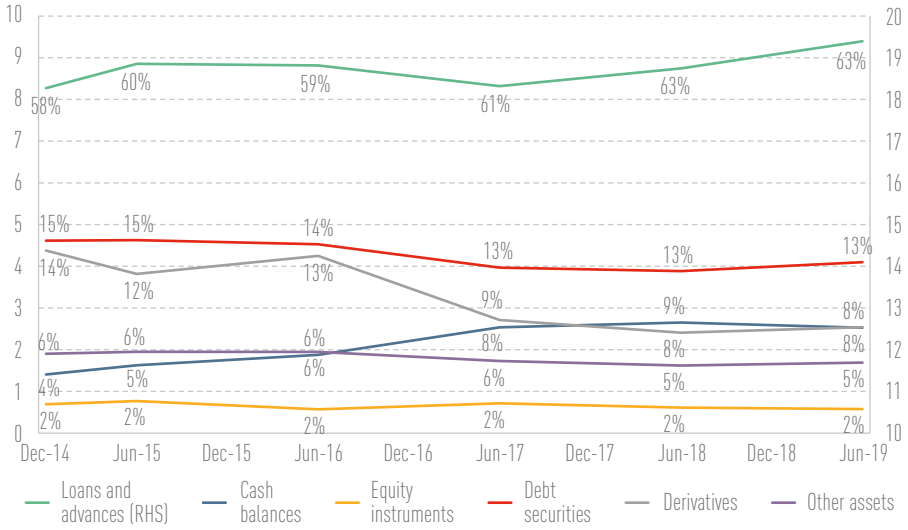
Debt securities, which represent about 13 % of total assets, have also reversed their former downward trend and recorded the highest YoY increase (5.5 %). This increase is not least explained by banks' growing exposures to credit institutions (+ 6 %) and other financial corporations (+ 6.5 %). Derivatives grew by 5.4 % YoY, reflecting an increase by EUR 130 bn. On the contrary, equity instruments and cash balances decreased by 5.7 % and 4.6 %, respectively (both YoY) (Figure 5).

Looking at longer-term trends, the composition of the asset side of the EU banking sector has not materially changed compared to 2014. Measured as a share of total assets, the biggest changes since then have taken place in loans (increasing from 58 % to 63 %), derivatives (decreasing from 14 % to 8.2 %) and cash balances (increasing from 4.5 % to 8.2 %). Valuation effects can have a bigger impact on the share of derivatives than on other financial assets. The change in cash balances is mainly explained by banks'

([11]) Data is based on Template 01 of financial supervisory reporting (Finrep), i.e. carrying amounts.

growing holdings of liquid assets with central banks, driven by an expansionary monetary policy. All other classes have remained roughly the same.

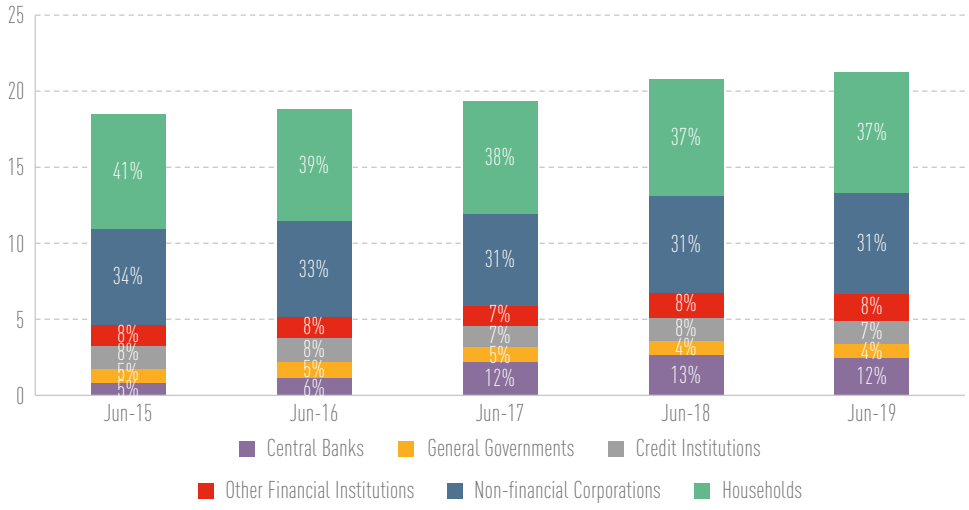
Figure 5: Trend of volumes by asset composition and percentage of total assets (EUR tn and %)
Source: EBA supervisory reporting data



SMEs, CREs and consumer credit led the growth in loans and advances

Looking at the loan portfolio composition and trends in more detail, data shows that household exposures have the biggest share in total loans and advances (37 %) followed by NFC lending (31 %). These two segments have expanded by 3.4 % and 2.8 % YoY respectively ([12]). In contrast, after a 3-year expansion period, exposures to central banks, which have a share of 12 % in total loans and advances, declined between June 2018 and 2019 (– 5.2 %), presumably reflecting the effect of negative rates for deposits held at some central banks (Figure 6). At segment level, consumer credit led the increase in household lending (5.3 % YoY), while loans to large corporates (3.6 % YoY) and SMEs (3.1 % YoY) were the main drivers of the increase in NFC lending.

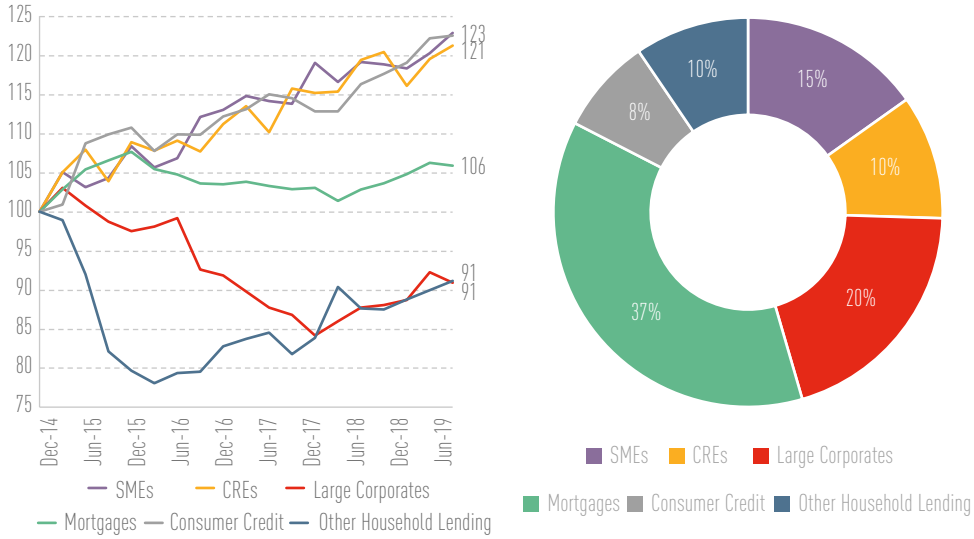
Figure 6: Evolution of breakdown of loans and advances (EUR tn)
Source: EBA supervisory reporting data



[12] Data is based on gross carrying amounts as reported in Template 18 of Finrep.

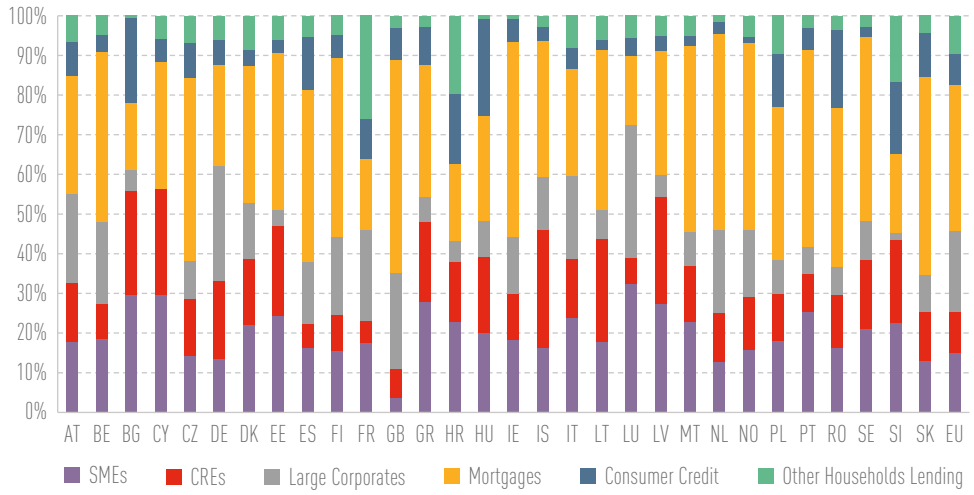
The increase in economic activity combined with the general trend of search for yield and a focus on the rather riskier segments is also reflected in longer-term trends. Data indicates that EU banks have been extending lending to particular segments, such as consumer credit, SME or CRE faster and more extensively than to other segments. Since 2014, the growth of these segments exceeded 20 %. This trend could be seen in most countries, excluding those that have largely deleveraged their banking sectors over the last few years, such as Cyprus, Greece and Ireland. However, despite their heightened growth, these segments make up around one third of the total loans to households and NFCs as of Q2 2019. Related to large corporates, more attractive and easier access to alternative sources of funding through capital markets might have contributed to the decrease of banks' lending towards this segment (Figure 7).

Figure 7: Evolution of segments of loans and advances valued at amortised cost (December 2014 = 100) and distribution of loans and advances by segments as of June 2019
Source: EBA supervisory reporting data



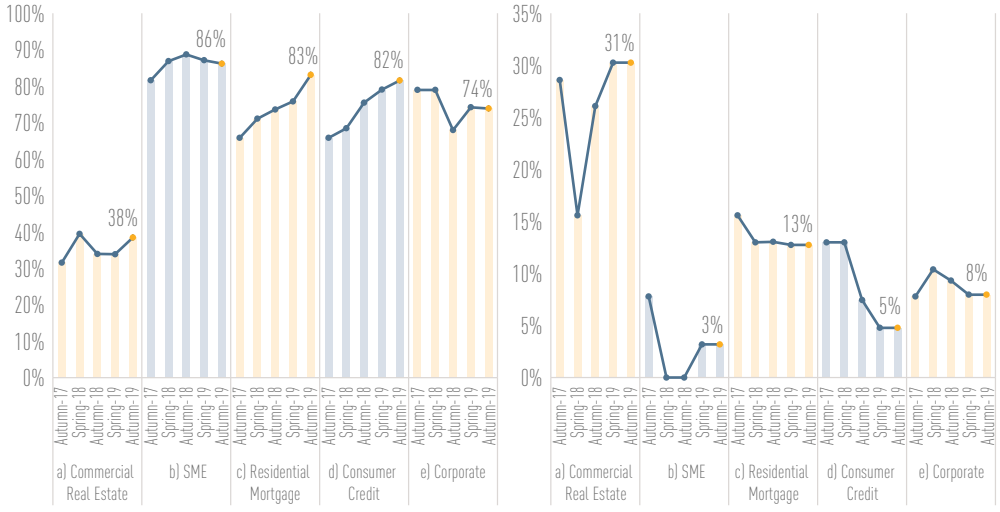
Data also shows that the composition of loans and advances differs widely across countries. Mortgage lending, which represents on EU average the biggest share of total loans and advances to NFCs and households, ranges from 18 % (Luxembourg) to 54 % (United Kingdom). Exposures to large corporates are comparatively high in larger banking sectors, such as Germany, France and the United Kingdom. It might be explained by the fact that banks in these Member States serve large corporates which are domiciled there through commercial and investment banking. As regards consumer lending, its share is particularly high in central and eastern European (CEE) countries. In some of these, for instance Bulgaria, Estonia and Latvia, as well as in countries such as Greece, Italy and Portugal, SME lending is of significant importance due to the relevance of SMEs in these economies (Figure 8).

Figure 8: Distribution by segment of loans and advances to NFCs and households valued at amortised cost by country — June 2019
Source: EBA supervisory reporting data



Looking forward, banks' responses to the RAQ show that more than 80 % of them plan to increase their consumer credit, residential mortgage and SME exposures. The share of banks aiming to increase their household exposures (i.e. consumer credit and residential mortgages) has gradually increased over the past 2 years (Figure 9). Most of the analysts expect an increase in lending to households and SMEs. However, they assume that CRE and corporate lending growth will be subdued in the next 12 months: around 60 % of the analysts expect banks to reduce their CRE exposures. About 40 % expect a reduction in corporate lending, a significant increase compared to 2 years ago (5 %).

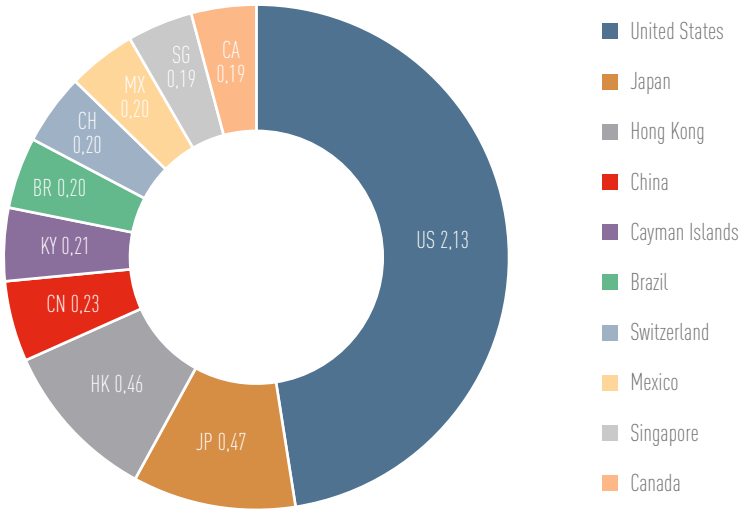
Figure 9: Portfolios EU banks plan to increase (left) or decrease (right)
Source: EBA RAQ for banks (extracts)



Exposures to non-EU countries and emerging market economies (EMEs) remain significant

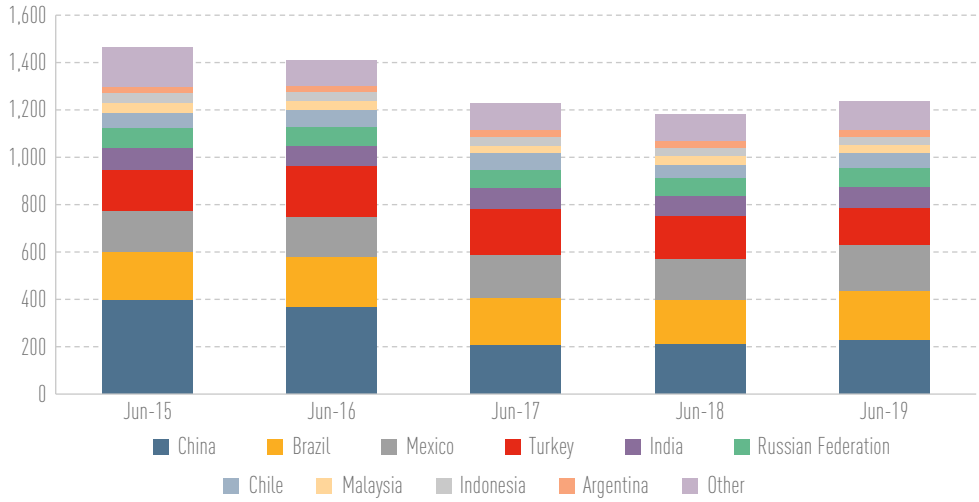
EU banks have substantial exposures to non-EU countries. As of June 2019, EU banks reported a gross carrying amount of EUR 6.33 tn in loans and debt securities, up from EUR 5.85 tn a year earlier, marking an 8.4 % increase YoY. Exposures to NFCs accounted to for the biggest portion of non-EU exposures (EUR 1.73 tn) followed by exposures to other financial institutions (EUR 1.20 tn). The highest non-EU exposures of EU banks were reported towards United States counterparties (EUR 2.13 tn) followed by counterparties from Japan and Hong Kong, with amounts of about EUR 0.47 tn and EUR 0.46tn, respectively (Figure 10).

Figure 10: Total loans and advances and debt securities to non-EU countries (EUR tn, for the top 10 non-EU countries of the counterparty) – June 2019
Source: EBA supervisory reporting data



EME exposures performance are highly correlated with global economic growth and other economic developments. In this regard, events that may weigh on the global economy, such as trade tensions or changes in US dollar (USD) interest rates, make these exposures particularly vulnerable. EME exposures ([13]) accounted for around EUR 1.24 tn, marking a 4.7 % increase from EUR 1.18 tn in June 2018. Out of these, the highest exposures were towards China (EUR 231 bn) ([14]), Brazil (EUR 204 bn) and Mexico (EUR 196 bn) (Figure 11). The bulk of EME borrowers were NFCs (37 % of total exposures), followed by households (18 %) and general governments (16 %).

Figure 11: European banks' EME exposures trend (EUR bn)
Source: EBA supervisory reporting data



([13]) EMEs include in the following analysis the following countries: Argentina, Bangladesh, Brazil, Chile, China, Colombia, India, Indonesia, Malaysia, Mexico, Pakistan, Peru, Philippines, Russia, South Africa, Thailand, Turkey, Ukraine and Venezuela.

([14]) Values for China exclude Hong Kong.

Within the EU, nearly 70 % of total EME exposures were held by banks domiciled in Spain (EUR 471 bn) and the United Kingdom (EUR 375 bn). Spanish banks have material exposures to Brazil, Mexico and Turkey, whereas United Kingdom banks exposures are concentrated in China and India. Besides Spain and the United Kingdom, elevated EME exposures relative to banks' total exposures are also observed in banks domiciled in Hungary and Austria (6 % and 4 %, respectively, mainly due to Russian exposures); Italy (3 %, mainly driven by Turkish exposures) and the Netherlands (3 %, driven by exposures to China).

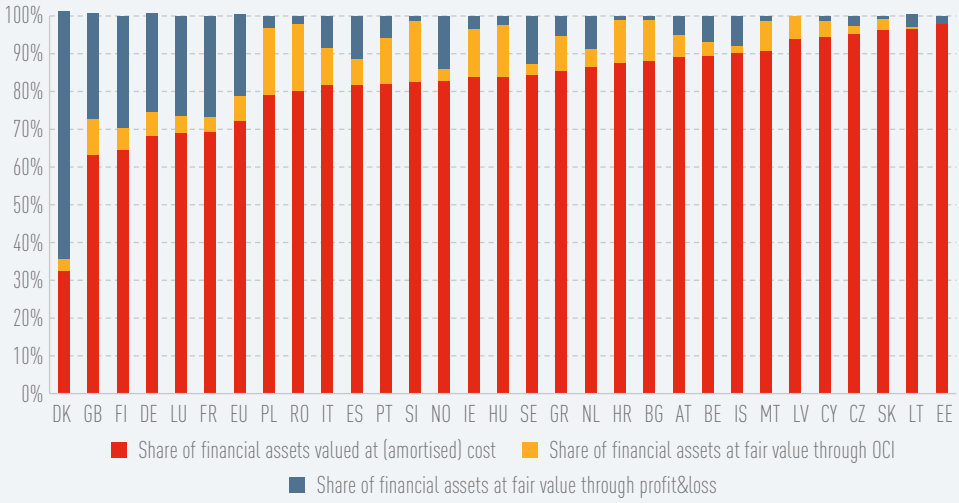
Fair value exposures and levels: no major changes in recent quarters

The distribution of financial assets among different accounting portfolios has been stable during the past few years. In June 2019 financial assets accounted for around 95 % of the total assets. Of these, 72 % were measured at amortised cost, 21 % at fair value through profit and loss (P&L) and 6 % at fair value through other comprehensive income (OCI). In Denmark, mortgage loans are widely measured at fair value through P&L, to avoid accounting mismatches between the asset and liability side ([15]). Banks domiciled in Germany, France and the United Kingdom have a high share of their financial assets measured at fair value through P&L, driven by the banks' comparably large trading exposures (Figure 12).

With the total amount of fair-valued assets in the EU reaching EUR 8.1 tn in June 2019, the levels of input parameters to respective valuations remains a key concern. Based on the International Financial Reporting Standard (IFRS) 13, which defines different levels of input parameters for the valuation of such instruments, one third of these exposures is valued applying Level 1 (L1) input. The remainder are Level 2 (L2) and Level 3 (L3) instruments, for which quoted prices are not available in active markets.

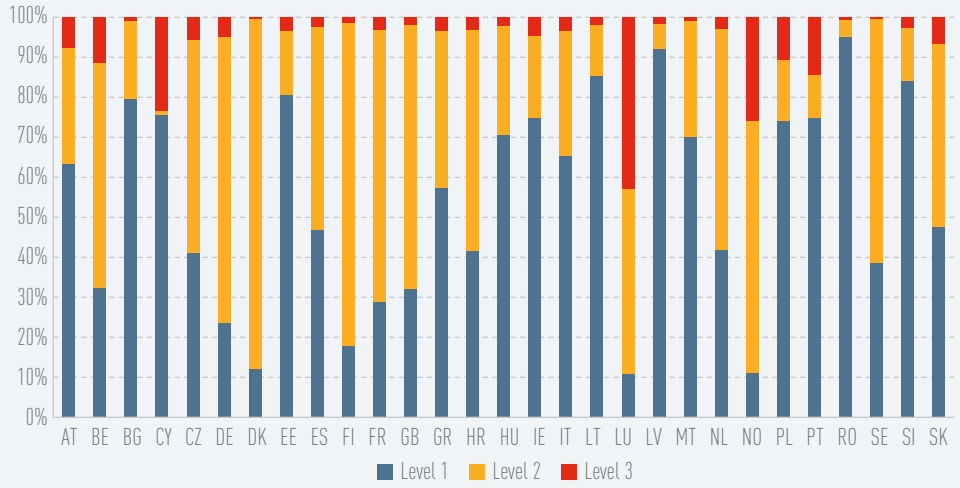
As of June 2019, L2 and L3 instruments represented 64.4 % and 3.2 % of fair-valued financial assets respectively and 80.9 % and 3.4 % of total fair-valued financial liabilities. Derivatives accounted for around 45 % of L2 and L3 for the asset side, and for slightly above 50 % for the liability side. The data implies that the share of exposures, for which the application of a valuation model is needed, and which are as such subject to model uncertainty, remains significant. Also in times of stress these products might face illiquid markets, implying that banks holding such assets might not dispose them of, which adds to the uncertainty linked to their valuations.

Figure 12: Distribution of financial assets by accounting method by country — June 2019
Source: EBA supervisory reporting data



([15]) See the Association of Danish Mortgage Banks' response to the public consultation on the Green Paper on long-term financing of the European economy (https://ec.europa.eu/finance/consultations/2013/long-term-financing/docs/contributions/registered-organisations/association-of-danish-mortgage-banks_en.pdf).

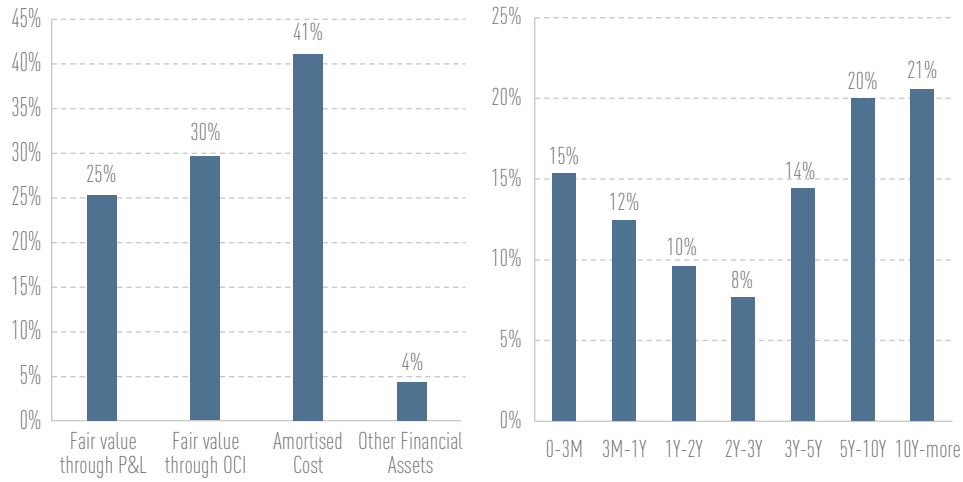
Figure 13: Distribution of assets at fair value measurement by level
Source: EBA supervisory reporting data



Sovereign exposures remain stable

As of June 2019, the total exposures to sovereign entities of EU banks stood at EUR 4.15 tn, slightly up from June 2018 (EUR 4.13 tn). The largest share of sovereign exposures were measured at amortised cost (41 %), followed by fair value through OCI (30 %) and fair value through P&L (25 %) ([16]). Given their relatively high weight, fair-valued sovereign exposures can substantially affect banks' P&L and equity in times of elevated volatility of country specific risk premiums. The impact from respective sovereign spread movements could be amplified by the fact that around 40 % of sovereign exposures have a maturity of 5 years and more, which are more vulnerable to interest rate moves than short-term exposures. In contrast, 15 % of the sovereign exposures had a maturity of less than 3 months. The breakdown by maturity of these exposures have been stable in the past few quarters (Figure 14).

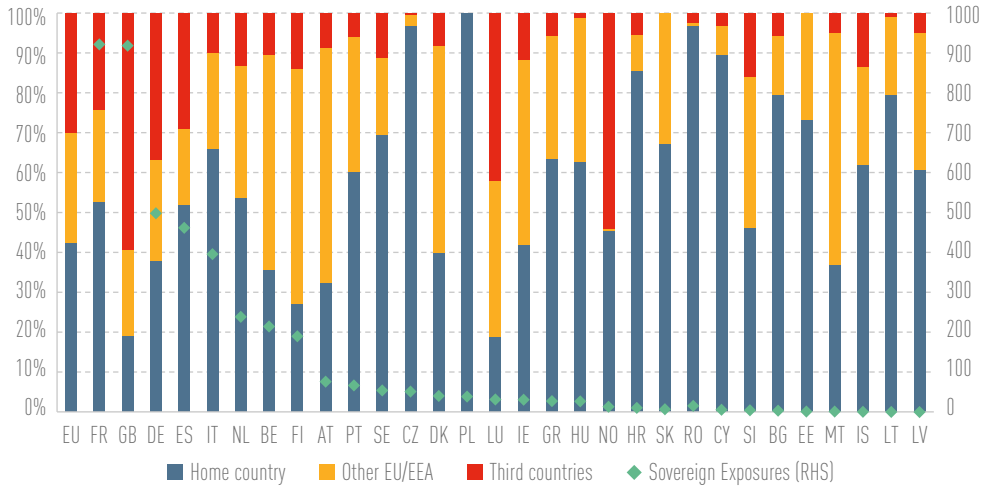
Figure 14: Breakdown of accounting treatment (left) and maturity (right) of sovereign exposures (%) — June 2019
Source: EBA supervisory reporting data



([16]) Difference to 100 %: exposures, which are for instance valued according to particular national generally accepted accounting principles (nGAAP).

As of June 2019, 42 % of banks' sovereign exposures were towards domestic counterparties, down from 46 % 1 year ago. This trend indicates that the link between banks and their domestic sovereigns weakened somehow, but still remains a potential source of risk (Figure 15).

Figure 15: Sovereign exposures (EUR bn) and country distribution by domicile (%) — June 2019
Source: EBA supervisory reporting data

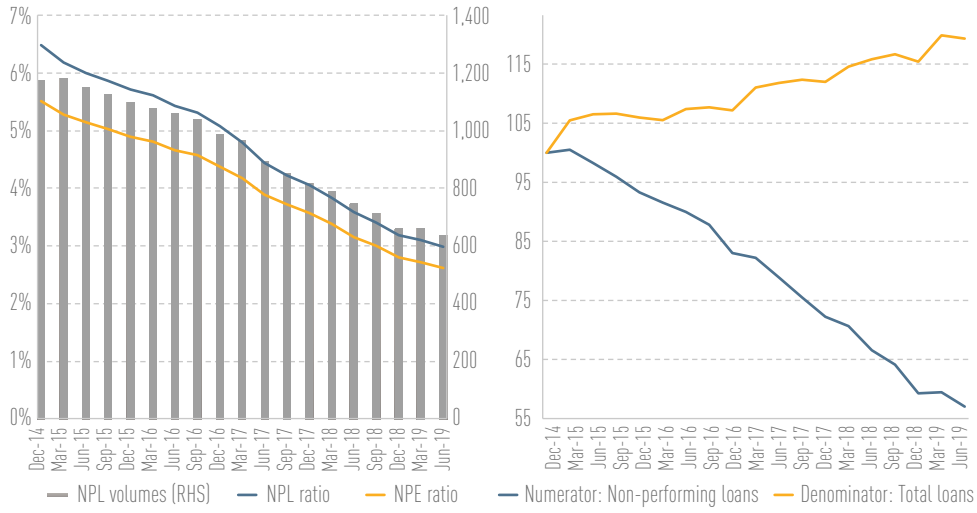


2.2. Asset-quality trends

NPL ratio decreasing, but at a slower pace

In June 2019, the NPL ratio stood at 3 %, down from 3.6 % in June 2018, the lowest since the NPL definition was harmonised across European Member States in 2014 (when it stood at 6.5 %, as of December 2014). The NPL ratio has improved by an average of 75 bps each year, however the pace of adjustment has decreased in the recent quarters (the ratio decreased by 60 bps in the last year) ([17]). The improvement in the ratio is mostly attributed to the reduction of the gross carrying amount of NPLs, which in June 2019 stood at EUR 635 bn; around

Figure 16: Quarterly trend in NPL and non-performing exposure (NPEs) ratios (%) and NPL volumes (EUR bn) (left) and NPL volumes and total loans (December 2014 = 100, right)
Source: EBA supervisory reporting data

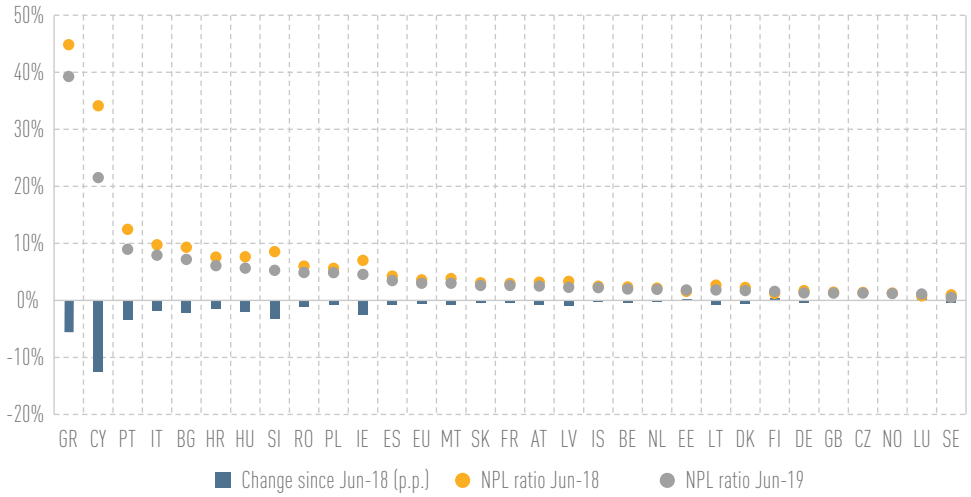


([17]) See EBA 'Report on NPLs. Progress made and challenges ahead', https://eba.europa.eu/eba-shows-efforts-improve-eu-banks%E2%80%99-asset-quality-have-proven-successful-pockets-risks-remain

EUR 112 bn less than 1 year before. Since 2014, NPLs have almost halved (EUR 1.2 tn). Increasing total loan volumes have also helped reducing the ratio (Figure 16 and see Chapter 2.1 on the loan volume growth).

Within the EU, all but three countries have reported an improvement in their NPL ratio during the last year. Some of the biggest declines were reported from those facing the highest NPL ratios. Cyprus reported the biggest reduction, close to 13 pp, followed by Greece with 6 pp. Banks in Ireland, Portugal and Slovenia reported improvements of around 3 pp during the same period. Italy, which had the highest volume of NPLs in absolute terms, reported a decrease of around 2 pp, and its NPL ratio stood at 7.9 %. Despite this broad reduction, NPLs remain unevenly distributed within the EU.

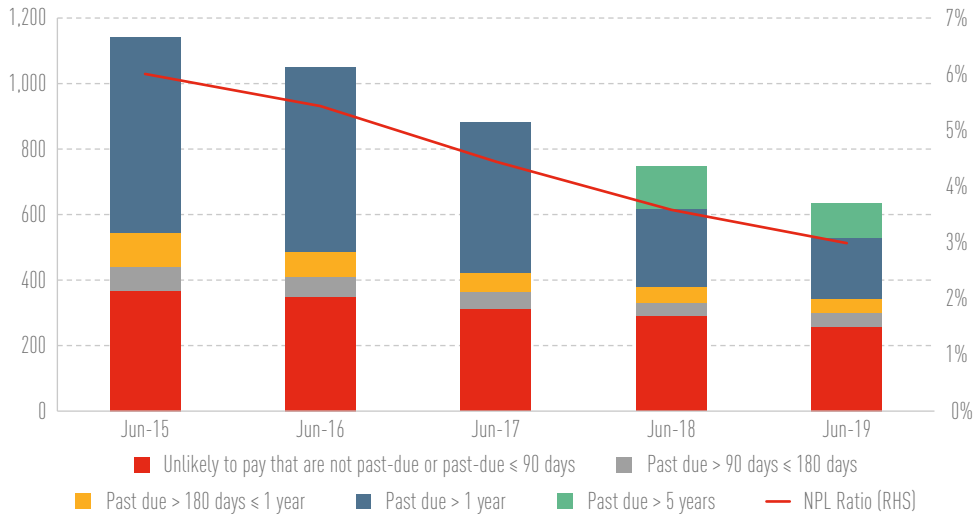
Figure 17: NPL ratios by country in June 2018 and June 2019 (%) and pp change between June 2018 and June 2019
Source: EBA supervisory reporting data



Banks with higher NPL ratios have a higher share of NPLs past due more than 5 years

Early acknowledgement of problematic loans and appropriate intervention measures are crucial in keeping NPL levels low. In this regard, substantial progress has been made in dealing with legacy assets across all countries. The breakdown of NPLs by their vintage shows a general downward trend of NPL volumes across all past-due buckets. The fall in NPL volumes is especially pronounced in the bucket past due by more than 1 year. This has led to an increasing share of NPLs classified as unlikely to pay (UTP) and less than 90 days past due within NPLs. As of June 2019, this category accounted for 41 % of total NPLs, while 14 % were past due between 90 days and 1 year, and 46 % were past due for more than 1 year (Figure 18).

Figure 18: NPL volumes (EUR bn) by past-due category and yearly trend of EU NPL ratio (%)
Source: EBA supervisory reporting data



Countries with lower NPL ratios generally report a larger share of NPLs in the UTP category. This is in contrast to those with higher NPL ratios, which have a larger share in the past-due buckets of 1 year and more (Figure 19 and Figure 20). For example, more than 65 % of Greece and Cyprus NPLs were past due for at least 1 year, and around 60 % of those were past due more than 5 years as of June 2019. Similarly, Bulgaria and Hungary reported more than half of their NPLs as past due more than 1 year, of which at least half were past due more than 5 years. Italy was an exception to this trend, with around 60 % of its NPLs past due more than 1 year, but only one quarter of these being past due more than 5 years. These differences might reflect the fact that dealing with NPLs and respective collateral might take longer in certain countries than in others. Besides other reasons, the liquidity of secondary markets for NPLs might also contribute to such differences.

Figure 19: NPL volumes (EUR bn) by past-due category and NPL ratio (%) by country — June 2019
Source: EBA supervisory reporting data

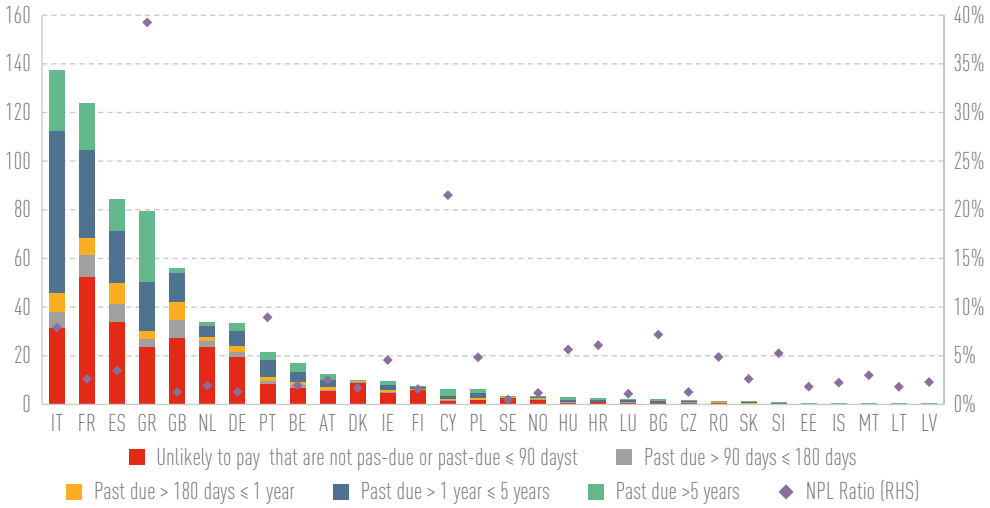
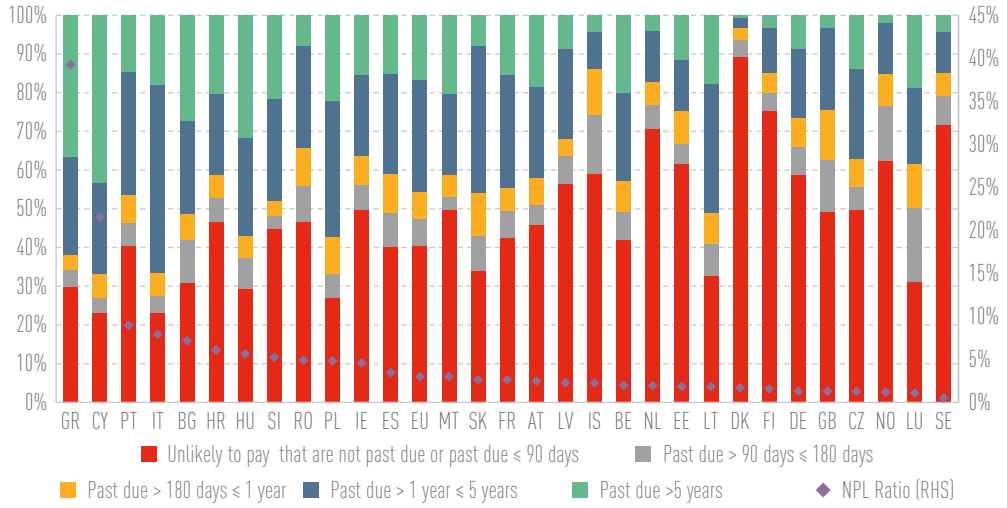


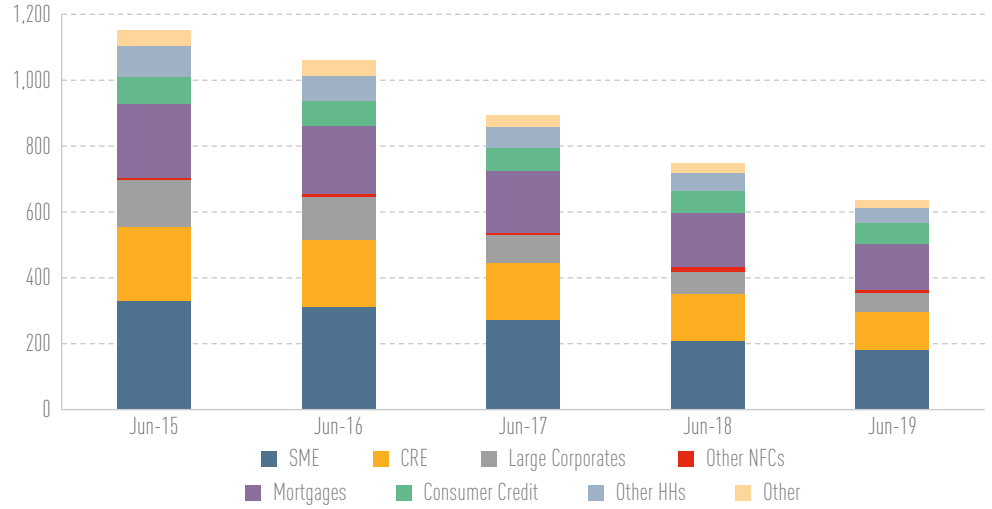
Figure 20: Distribution of NPL volumes (%) by past-due category and by country — June 2019
Source: EBA supervisory reporting data



SMEs, CREs and consumer credit segments have higher NPL ratios

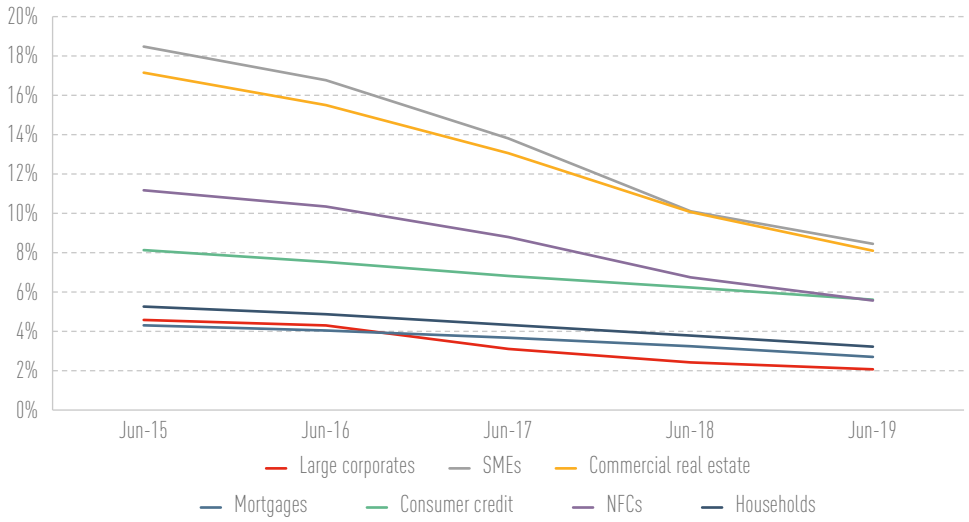
As of June 2019, NFC NPLs stood at EUR 364 bn (down from EUR 434 bn in June 2018), and household NPLs at EUR 250 bn (down from EUR 285 bn 1 year earlier). SMEs, mortgages and CREs have been the largest sub-segments by volume of NPLs. As of the second quarter of 2019, the volume of SME NPLs was EUR 181 bn (28.5 % of total), followed by mortgage NPLs EUR (141 bn, 22 %) and CRE NPLs (EUR 117 bn, 18.4 %) (Figure 21).

Figure 21: Trend NPL volumes by lending segment (EUR bn)
Source: EBA supervisory reporting data



The NPL ratio shows significant differences across segments. As of June 2019, the NPL ratio for households stood at 3.2 % compared to 5.6 % for NFCs. Differences are even more pronounced in the subcategories of NFCs and households. In particular, NPL ratios for SMEs (8.5 %), CREs (8.1 %) and consumer credit (5.6 %) are considerably higher than for large corporates (2.1 %) and mortgages (2.7 %). However, SMEs and CREs also show the biggest improvements since 2015, when their NPL ratios were around 18 % (Figure 22).

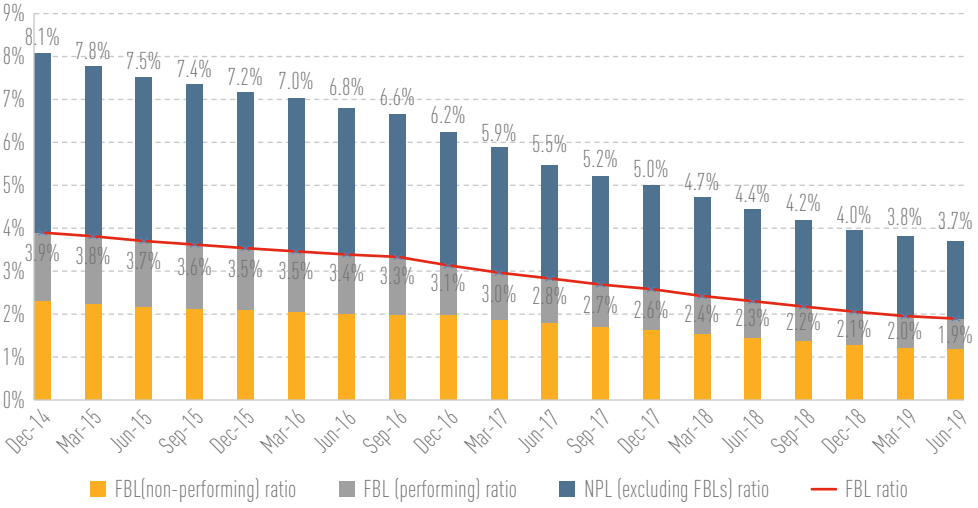
Figure 22: Trend in NPL ratios (%) by segment (loans at amortised cost)
Source: EBA supervisory reporting data



The forbearance ratio has decreased in parallel with the NPL ratio

The ratio of forborne loans (FBLs) has decreased constantly since December 2014. Similar to the NPL ratio, the pace of reduction slowed down in the past few quarters. As of June 2019, the FBL ratio stood at 1.9 %, down from 3.9 % in December 2014 and 2.3 % in June last year. Performing FBLs, which might in general be considered more vulnerable assets than performing loans without any forbearance measures, together with NPLs [18], can provide a more general composite credit-weakness indicator. Data shows also on this basis the improvement in asset quality, as this composite credit weakness indicator has decreased from 4.4 % in June 2018 to 3.7 % in June 2019. At the start of the time series reported by the EBA, in December 2014 the ratio stood at 8.1 % (Figure 23).

Figure 23: A composite credit weakness ratio of non-performing loans (NPLs) and performing forborne loans, and FBL ratio (%)
Source: EBA supervisory reporting data



[18] Non-performing FBLs are included in the NPL definition.

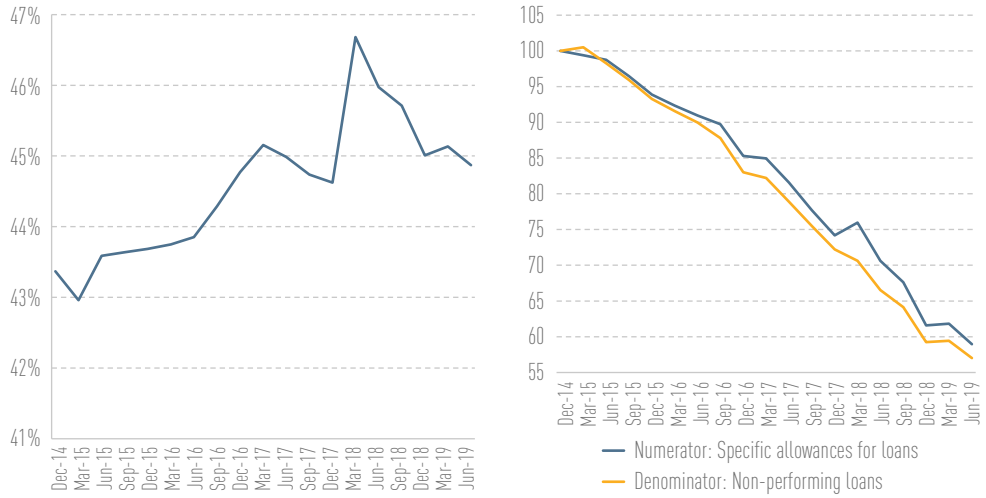
Coverage ratio dispersion is still wide between countries and segments

The average coverage ratio of NPLs reported as of June 2019 was 44.9 %, down by 110 bps from June 2018. This recent decline was due to a significant fall in accumulated NPL provisions (– 17 % since June 2018), which was more pronounced than the continuing decline in NPLs (– 15 % since June 2018).

However, in the 12 months to June 2019, the cost of risk registered a slight increase (see Chapter 5). There might be several explanations for the diverging trends between coverage ratios and cost of risk. One explanation might be that the provisioning of new NPLs is on average lower than the provisioning of older NPLs, which are, for example, recovered or disposed of. The increased cost of risk, compared to 1 year ago, might in such case be reflected in the fact that the NPL ratio declined less due to the presumed inflow of new NPLs.

Another possible explanation might be that outgoing NPLs needed additional provisioning at the time of their derecognition, for instance in case the sale price of NPLs was below their net book value. Respective impairments are also reflected in the cost of risk, but might in such cases not affect the coverage ratio, as the loans were presumably derecognised soon after the additional provisioning was booked. This explanation would also imply that average coverage ratios decreased due to the outflow of NPLs with a higher coverage ratio than the one of the remaining NPLs.

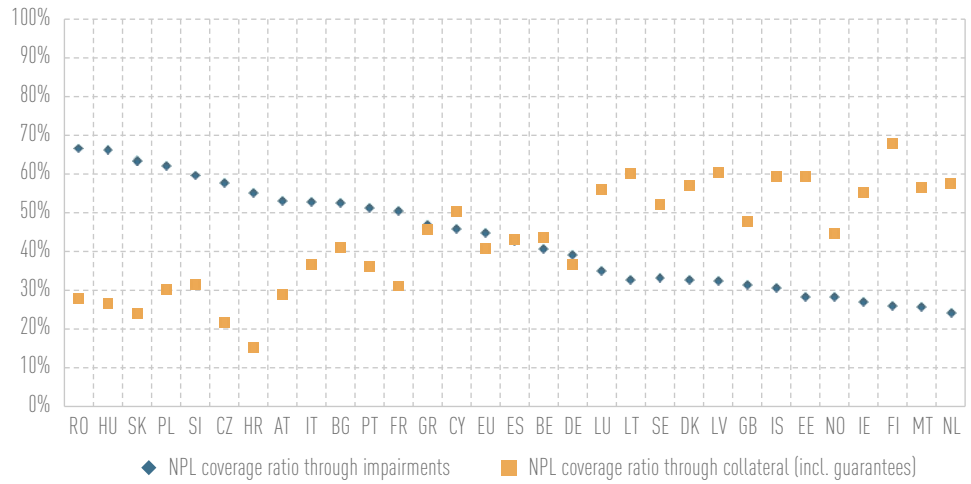
Figure 24: EU coverage ratio (%) (left) and trends of numerator and denominator December 2014 = 100 (right)
Source: EBA supervisory reporting data



Coverage ratios are quite different across banks and countries, ranging from 26 % for banks in Finland, Malta and the Netherlands to 66 % for banks in Hungary and Romania. These differences in ratios might reflect differences in the collateralisation, accounting standards, provisioning policies and types of exposures. Although when assessing collateral, valuation rules and enforceability should also be considered, data indicates a link between coverage ratios and collateralisation. The analysis shows that countries with lower coverage ratios tend to have a higher ratio of collateralisation and vice versa (Figure 25) [19]

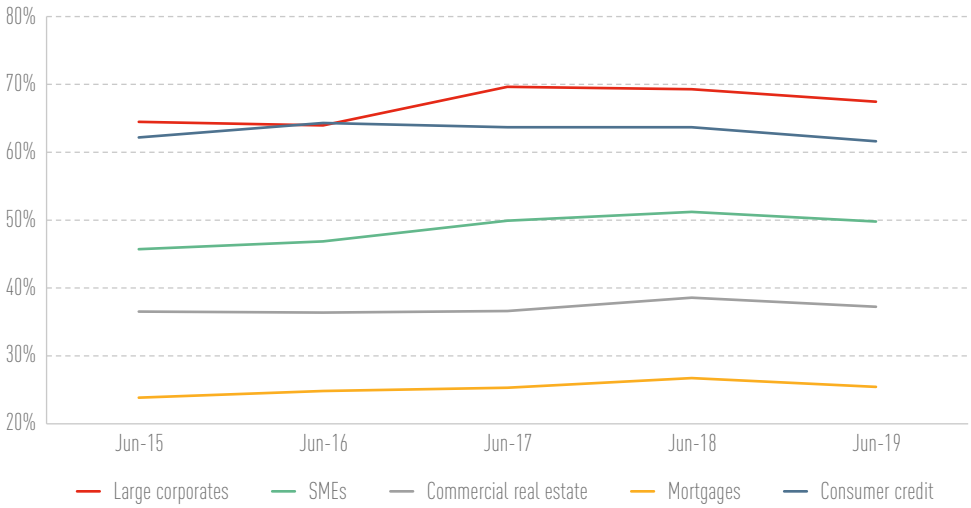
[19] Over-collateralisation is not reflected by this data, as the reported collateral is capped at the net book value.

Figure 25: NPL coverage ratio (%) through provisions and collateral by country — June 2019
Source: EBA supervisory reporting data



Differences across countries in coverage ratios can mainly be explained by the share of exposures to different segments. NPLs to large corporates, for example, have a higher level of provisioning than mortgages, which have higher collateral. Hence, a bank focused on business with corporate clients is likely to report a higher coverage ratio than a bank with a strong focus on mortgages.

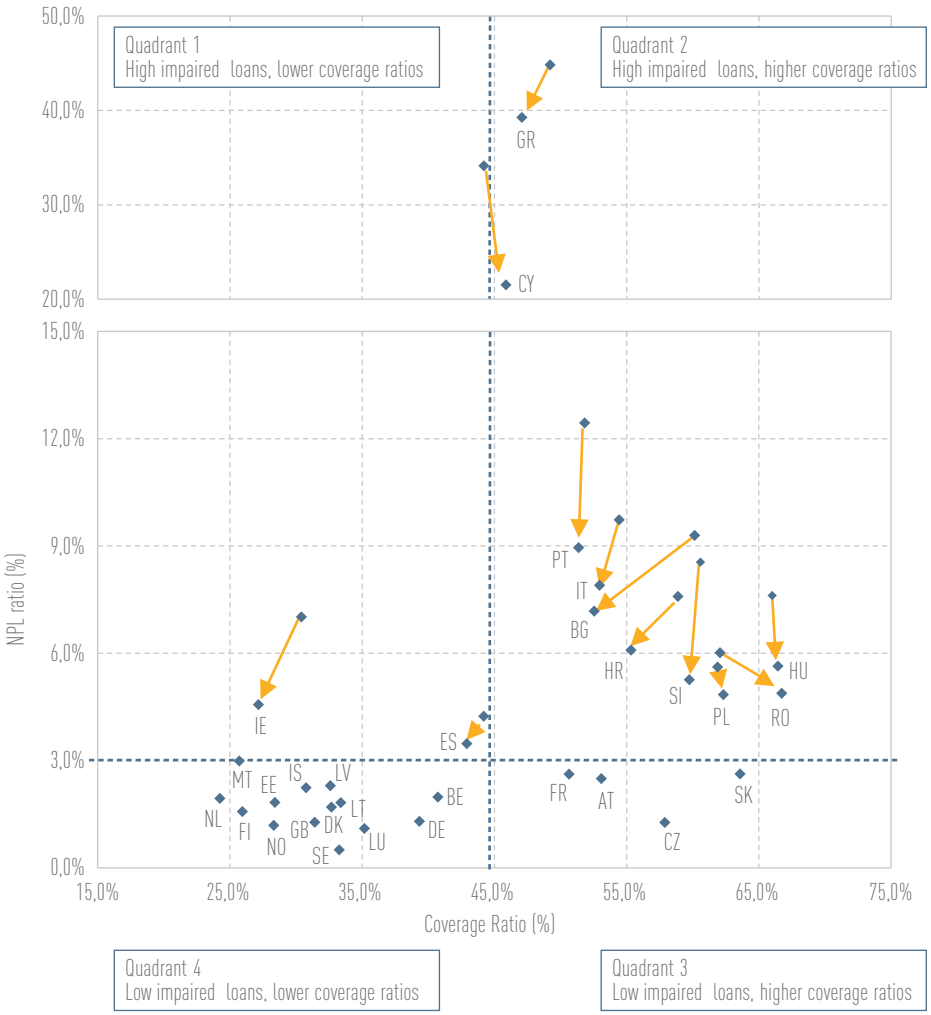
Figure 26: Trend in coverage ratios (%) by lending sub-segment
Source: EBA supervisory reporting data



Timely and adequate provisioning is a crucial element for the resolution of NPLs

The movements in coverage and NPL ratios between June 2018 and June 2019 for a selected group of countries show the progress made in terms of improvements of asset quality (Figure 27). Data confirms that, in a majority of countries with elevated NPL ratios, banks successfully decreased them and further cleaned up their balance sheets. These reductions in NPL ratios came along with contractions of the coverage ratio. Similar to the analysis above on the link between changes in coverage ratios and cost of risk, this trend indicates that banks seem to dispose of NPLs with higher coverage ratios. It might be explained by the composition of the NPL portfolios, which are for instance sold, but also by the fact that higher coverage ratios lower the impact on banks' profits and capital at the time of a sale. It might be concluded that timely and stringent provisioning supports the clean-up of banks' balance sheets.

Figure 27: NPL ratio versus coverage ratio by country (* movements show June 2018 and June 2019) for selected countries)
Source: EBA supervisory reporting data

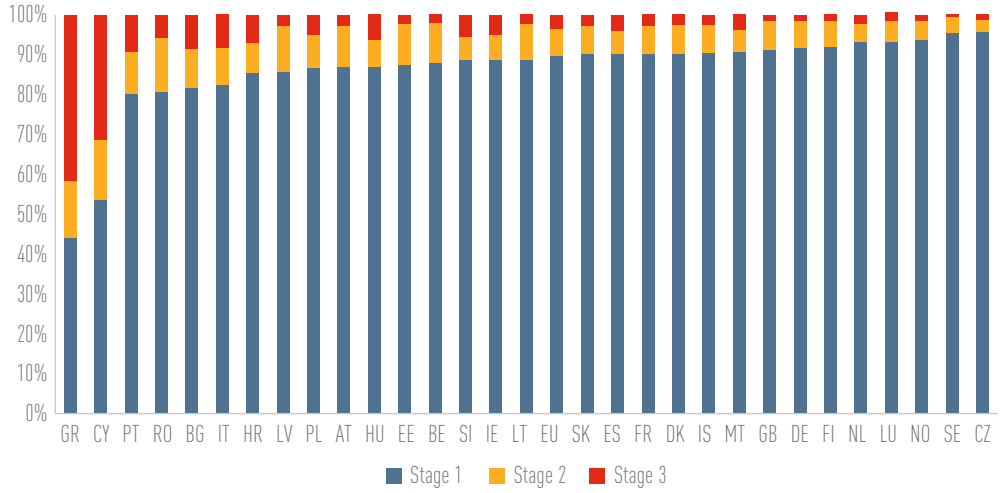


IFRS 9 data and other asset-quality metrics confirm the improvement in asset-quality

As of last year IFRS 9 replaced the previous accounting standard for financial instruments (International Accounting Standard (IAS) 39), changing, among other aspects, the approach that banks are required to follow in the calculation of credit losses. With the new accounting standard, provisions need to be determined based on an expected credit-loss model instead of an incurred-loss model. The introduction of IFRS 9 also requires banks to allocate financial instruments subject to expected credit-loss requirements in three different stages according to their credit-risk level.

In June 2019 banks in the EU allocated on average 89.6 % of the loans and advances recognised at amortised cost to Stage 1, 7 % to Stage 2 and 3.4 % to Stage 3 (Figure 28). These allocations compare favourably when seen in relation to a year earlier (88.2 %, 7.7 %, and 4.2 % respectively). The share of Stage 3 financial assets as of June 2019 was the highest in Greece (41 %) and Cyprus (31 %) followed by Portugal (9 %), broadly similar to what is reflected in NPL data. Also the share of Stage 2 financial assets tends to be higher for those with rather subdued asset quality. The share of Stage 2 financial assets was the highest for banks in Cyprus (15 %), followed by Greece and Latvia (14 %).

Figure 28: Distribution (%) of loans and advances among Stages 1, 2 and 3 by country — June 2019
Source: EBA supervisory reporting data



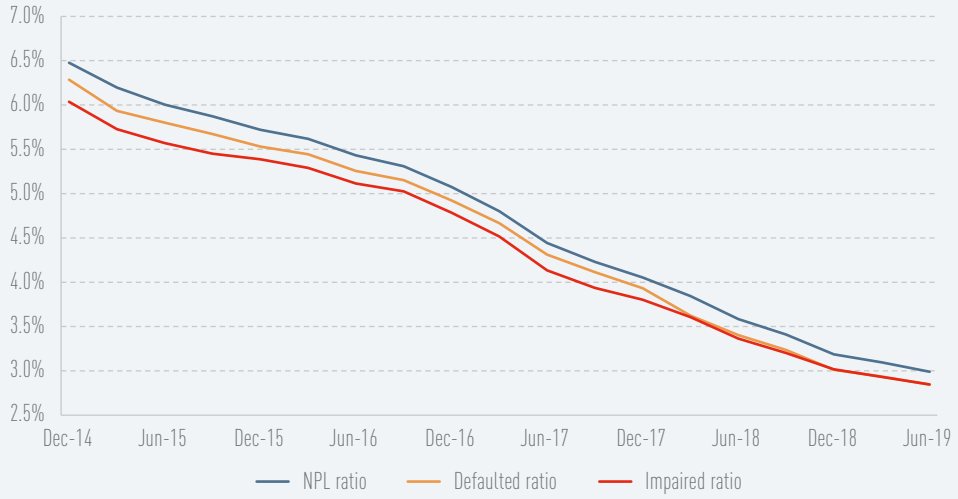
Converging trends of asset-quality-related indicators

Besides many others, asset quality can be measured according to different key metrics based on accounting, prudential or reporting definitions:

- Impaired assets, based on the accounting definition (IFRS and/or local GAAP),
- Defaulted assets, based on the prudential (Capital Requirements Regulation (CRR)) definition,
- Non-performing exposures (NPEs), based on the EBA definition for supervisory reporting.

There were some divergences between these metrics. Among others, the main drivers for potential differences were the automatic factors used in the NPL definition, which are not applied for default/impaired definitions. For example, the 1-year cure period to exit NPL status, the strict application in categorising 90 days past due as NPL and the 20 % 'pulling effect' applies for NPLs ([20]).

Figure 29: Quarterly trend of the NPL, default and impaired loans ratios (%) — December 2014 to June 2019
Source: EBA supervisory reporting data



([20]) Implementing Technical Standard on supervisory reporting, Finrep, Template 18.01.

For impairments (IFRS 9) loans are considered on instrument level, while the default definition is in general applied at obligor level. Differences between impaired and defaulted loans are also driven by a different application of the automatic trigger of 90 and/or 180 days past due with specifically defined exceptions.

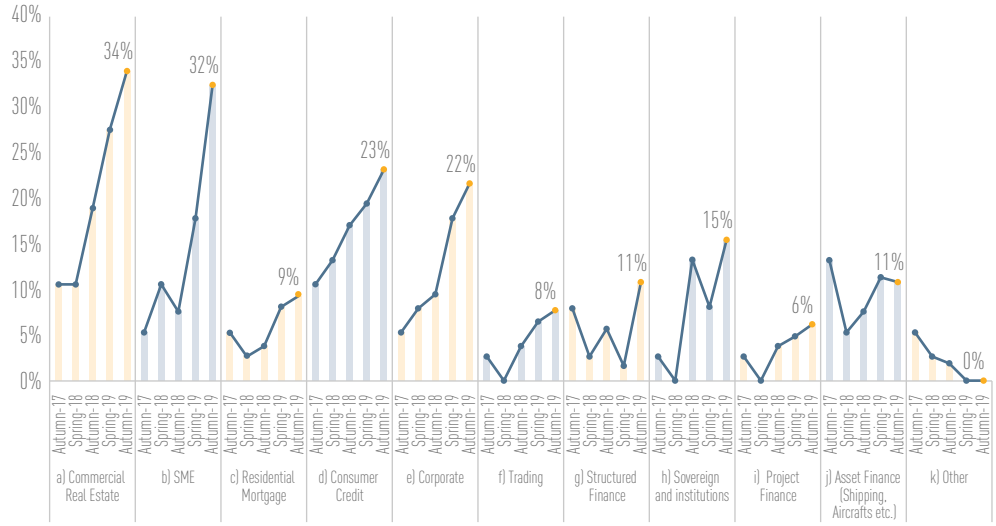
These three ratios had significant divergence as of December 2014 for loans, with the NPL ratio standing at 6.5 %, the defaulted ratio at 6.3 % and the impaired ratio at 6.0 %. Since then, these ratios have converged, and their difference now stands at only 20 bps (Figure 29).

One might conclude that the introduction of the EBA NPL definition has contributed to the gradual convergence of the different definitions, since the presence of a harmonised EU benchmark encouraged banks to more conservatively assess asset quality. Supervisors encouraging banks to make use of the NPL definition for internal risk management and disclosure might also have contributed towards convergence of these metrics.

Global economic developments weigh on asset-quality outlook and credit standards

Looking ahead, there are some signs of a possible economic downturn (see Chapter 1). Against this backdrop, banks are more pessimistic about asset quality prospects. RAQ responses show that a rising percentage of banks compared to previous questionnaires expect a deterioration of asset quality for all major segments, with asset finance being the only exception (Figure 30). Even though, for the time being, NPL ratios have not increased for any segment, the cost of risk rose in 2019, hence, reflecting the increasingly bleaker outlook (see Chapter 5).

Figure 30: Portfolios for which banks expect a deterioration in asset quality
Source: EBA RAQ for banks



This outlook is similarly confirmed by the current tightening of credit standards and terms and conditions for new loans across the EU. For instance, according to the ECB's bank lending survey, during the last two quarters banks' risk perceptions, increased margins required on riskier loans, and collateral requirements have driven the tightening of credit standards and terms and conditions. This is particularly evident for consumer loans and follows an extended period of loosening credit standards. In addition to this, an increase in rejection rates has been observed during the last 2 years [21].

The Bank of England credit conditions survey also reports some increase in loan pricing for secured lending to households and corporate

[21] https://www.ecb.europa.eu/stats/ecb_surveys/bank_lending_survey/html/index.en.html

lending ([22]). Similarly, Polish banks have tightened their credit standards across the board, but they have eased the credit terms especially for consumer loans (increasing loan size and maturity) despite the growing share of impaired loans in this segment ([23]). Hungarian banks' willingness to extend loans for either consumer or household loans is similarly decreasing compared to previous quarters despite the strong demand especially for household loans. According to the Magyar Nemzeti Bank, this is mainly driven by the deteriorating outlook of housing market, and increased competitive environment ([24]).

[22] https://www.bankofengland.co.uk/credit-conditions-survey/2019/2019-q3

[23] https://www.nbp.pl/en/systemfinansowy/kredytowy3_2019_en.pdf

[24] https://www.mnb.hu/en/financial-stability/publications/lending-survey/senior-loan-officer-survey-on-bank-lending-practices-september-2019

3. Liability side

Banks continued with a strategy of a slight reduction of market funding in favour of customer deposits. As regards market-based funding, banks focused on building loss-absorbing capacity (MREL). The share of secured debt in the funding mix slightly decreased between June 2018 and June 2019, reversing a trend observed in the previous year. Central bank funding has also remained popular and attractive, but it might become less relevant in the coming years.

Primary funding activity reflects improving market conditions

Following a period of elevated volatility for banks' funding at the very beginning of 2019, the situation improved from early March. Since then, pricing for bank funding instruments gradually improved and spreads currently stand at some of their lowest levels recorded (Figure 37). Against this backdrop, issuance volumes increased significantly.

These improved funding-market conditions were mainly driven by central bank communications of further prolongation of the accommodative monetary policy stance. In particular, the ECB announcements of 7 March to launch TLTRO III, and of 12 September to restart its Asset Purchase Programme and to further reduce the deposit-facility rate (see Chapter 1), were important milestones for improvements in market sentiment and for further reductions in bank funding instruments pricing. Ample investor liquidity positions coupled with a search for yield in the context of very low interest rates were also supportive factors. In the same vein, improved banks fundamentals, such as decreasing NPL ratios (see Chapter 2.2), progress to build MREL and sound capital positions (see Chapter 4) further supported a generally positive sentiment on bank-funding markets from Q1 2019.

The distribution of issuances was uneven across the first three quarters of 2019. After a strong focus on covered bonds in a more volatile Q1 2019 and only limited unsecured bond issuance, covered bond placements have decreased since then and unsecured issuance have surged. While, in general, no major constraints could be observed in secured and unsecured funding, reluctance to place subordinated instruments persisted for some banks, and was mainly connected to heightened pricing. Reluctance particularly affected small and medium-sized banks domiciled in countries which had experienced financial stress, or banks with idiosyncratic risk perceptions.

Long-term central bank funding

For the Euro area, outstanding volumes of the ECB's second targeted long-term refinancing operation (TLTRO), remained high at ca. EUR 668 bn in September 2019 (Figure 31) ([25]). It is expected that banks replace outstanding volumes of TLTRO II by obtaining TLTRO III, which commenced in September 2019, or by issuing debt securities. Concerning the latter, bank-funding-plan data shows that maturing TLTRO II volumes are higher than planned net issuances of debt securities (Table 1) ([26]). Over the forecast period 2019 to 2021, banks plan net issuances

Table 1: Net issuance volumes of debt securities (Euro area banks only) versus maturing TLTRO II volumes (EUR bn)
Source: EBA funding plans report, ECB ([27]), EBA calculations

	2019	2020	2021
Debt securities: net issuances	151	207	197
Maturing TLTRO II volumes	3	438	223

([25]) The amount includes outstanding volumes from TLTRO II and TLTRO III.

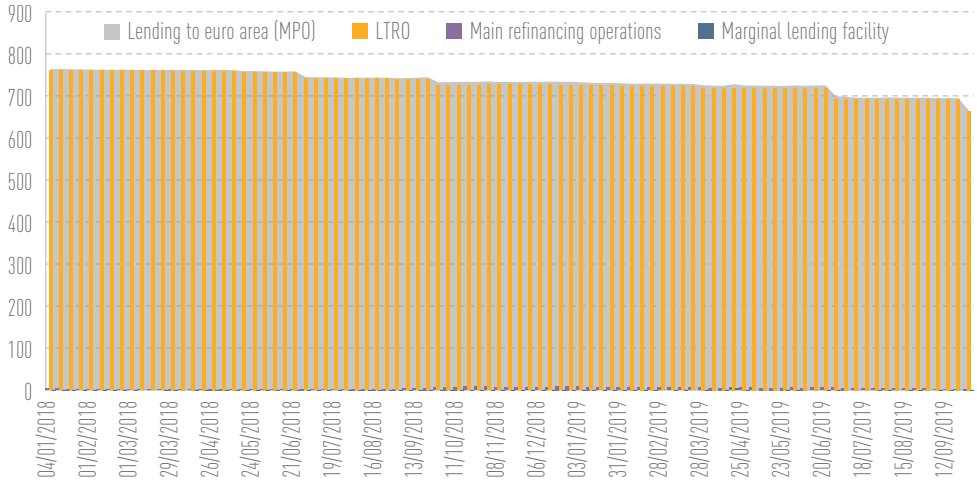
([26]) See EBA, *Report on Funding Plans*, 28 August 2019, based on a sample of 160 EU banks (https://eba.europa.eu/documents/10180/2908903/EBA+2019+Report+on+Funding+Plans.pdf).

([27]) The ECB data also reflects early repayments.

of debt securities reaching EUR 555 bn, compared to a total outstanding TLTRO II volume of EUR 664 bn at end-September 2019. This comparison suggests that banks plan to replace over 83 % of outstanding TLTRO II with debt securities. However, funding-plan data largely does not reflect the ECB's announcement to launch TLTRO III.

Some indications point towards a reducing relevance of long-term central-bank funding via TLTRO, in contrast to it long being an important element in long-term funding mixes. The take-up in the first ECB auction of the new TLTRO III in September 2019 was low at only ca. EUR 3.4 bn. Additionally, voluntary early repayments of TLTRO II strongly increased to a total of ca. EUR 58 bn in June 2019 and September 2019, after very limited repayments at previous windows. Ample liquidity positions of banks with only limited long-term funding needs, and possibilities to obtain long-term funding at even more attractive conditions than TLTRO may be among the factors explaining the reduced interest. For example, banks that are in a position to issue covered bonds with negative yields might opt for issuing this type of securities rather than refinancing maturing TLTRO II funds with TLTRO III funding. Increased aggregate covered-bond issuance volumes in the first half of 2019 may support these expectations.

Figure 31: Main refinancing operations, marginal lending facility, LTRO, lending to Euro area (EUR bn)
Source: ECB, EBA calculations



Sustainable finance: rising relevance in banks' asset and funding mix

European banks have issued almost EUR 10 bn of green bonds between January and September 2019. This amount sums up to EUR 16.5 bn and EUR 9 bn (both yearly) in 2018 and 2017, respectively, corresponding to an average issuance volume of EUR 13.0 bn in the last 3 years (Table 2) ([28]).

([28]) 2019 year-to-date figures have simply been extrapolated, without considering any potential seasonality.

Table 2: Green bond and asset-backed security (ABS) issuances by country (as of 30 September 2019) (EUR m)
Source: Climate Bonds Initiative, EBA calculations

	2017	2018	2019
Austria	333	539	757
Belgium		534	
Denmark			519
Finland			1,293
France	3,287	1,801	2,174
Germany	2,143	3,048	526
Italy	513		515
Netherlands	612	4,190	1,527
Norway		2,729	1,469
Poland	141		61
Spain		1,099	1,069
Sweden	1,536	1,314	
UK	533	1,301	
Grand Total	9,098	16,555	9,910

RAQ results show that for banks the main reason for issuing green bonds is to attract new and/or diversified investors (49 % agreement). It is followed by reputational benefits (39 %). Other aspects, including pricing advantages, play a less significant role (Figure 32).

Looking at disadvantages, banks point mainly to the costs related to their placement and that they do not offer any advantage in pricing (41 % agreement). Moreover, banks do not see enough appetite from investors for this kind of products (25 %). Two other drivers are the lacking definition of what is green and the insufficient transparency and data quality issues (each with 17 % agreement) (Figure 33).

Figure 32: Main reasons for issuing green bonds
Source: EBA RAQ for banks

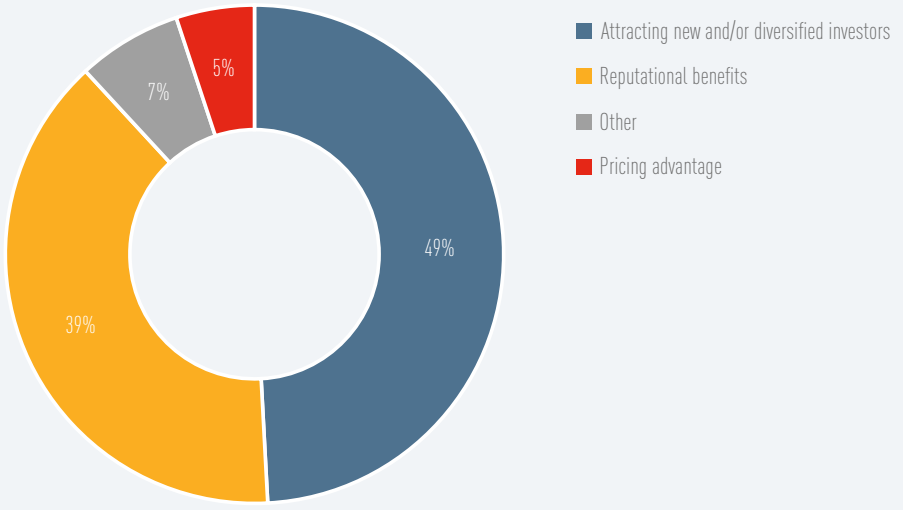
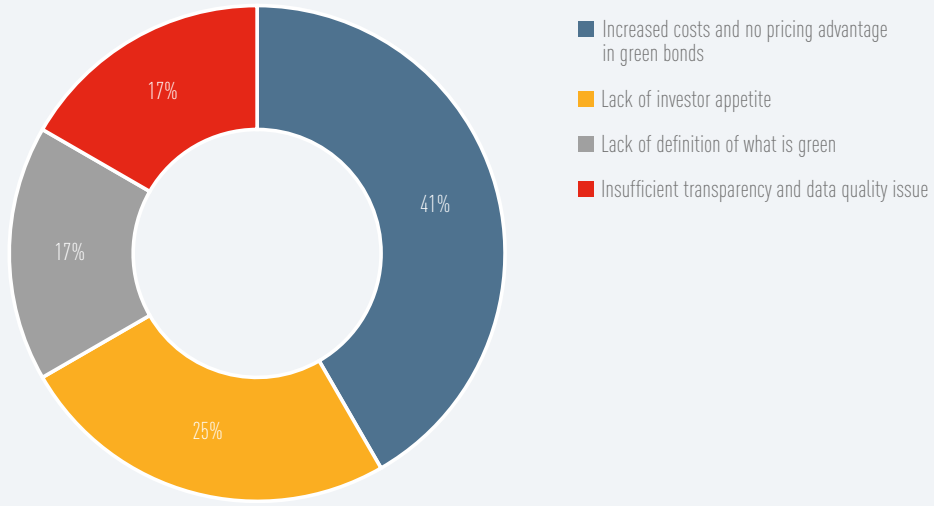


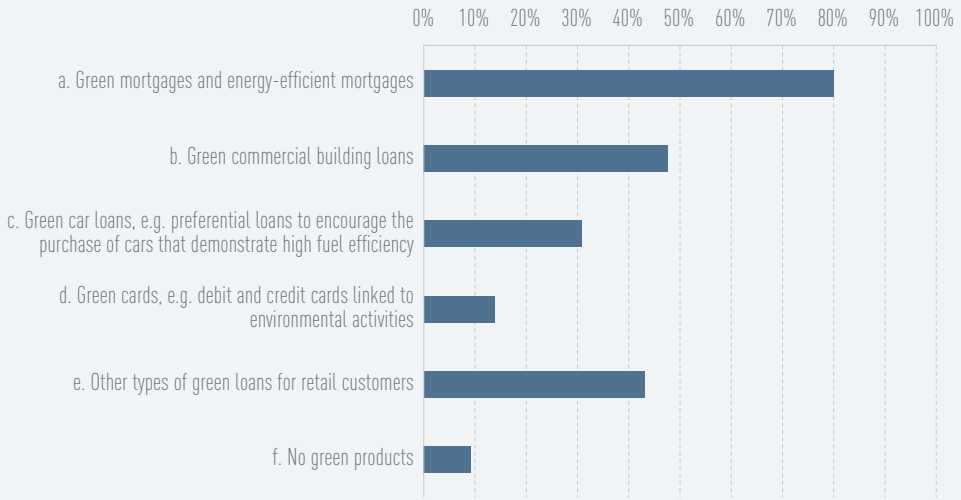
Figure 33: Main reasons for not issuing green bonds
Source: EBA RAQ for banks



Concerning the asset side, RAQ results show that the vast majority of banks already offers or plans to offer green products. Most banks grant green mortgages and energy-efficient mortgages (80 % agreement). Green commercial building loans or other types of green loans for retail customers are provided by nearly half of the banks. Banks are however less advanced or interested in the categories of green car loans or green cards. A low number of banks offers no green products (Figure 34).

By the beginning of 2020, the EBA intends to publish its Action Plan on sustainable finance, outlining the EBA's plans on deliverables and activities related to sustainable finance. The document aims to highlight key policy messages in order to provide some clarity to relevant banks on the EBA's high-level policy direction. Furthermore, the EBA is developing its advice to the European Commission, assessing potential undue short-term pressures from capital markets on NFCs, as part of Action 10 of European Commission's Action Plan on sustainable finance ([29]).

Figure 34: Banks' providing green products, by category
Source: EBA RAQ for banks



([29]) See the EU Commission's action plan for a greener and cleaner economy (https://europa.eu/rapid/press-release_IP-18-1404_en.htm) and also the EBA's work programme (https://eba.europa.eu/about-us/work-programme/current-work-programme).

This preparatory work will lay down the foundation to support the delivery of future EBA mandates in the areas of risk management, strategy and governance and the identification of key metrics and associated Pillar 3 disclosure of economic, social and governance-related risks. The EBA has legal mandates for disclosing and assessing the potential inclusion of these risks in the supervisory review and evaluation process (SREP) (including risk management and stress-testing, in line with Article 98(8) of the CRD) but will push for earlier actions by banks to identify key metrics and their use in strategy and risk management as soon as possible. The EBA will also be gathering evidence to assess if a dedicated prudential treatment of exposures related to assets or activities associated with environmental and/or social objectives would be justified (Article 501c of the CRR).

Moreover, as part of the EBA Action Plan on sustainable finance, the EBA aims to develop a dedicated climate change stress test with the main objective of identifying potential implications of climate-related risks on banks in the long term and assess their resilience.

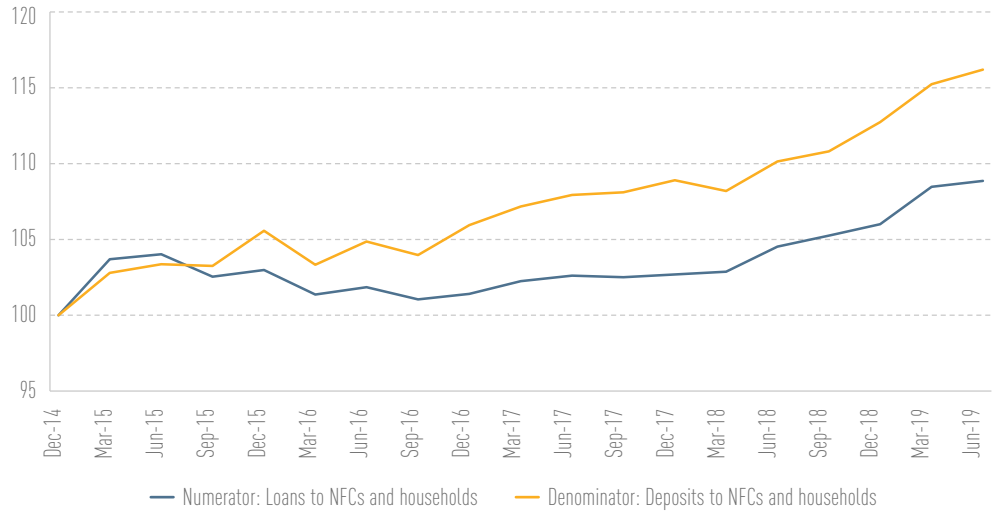
In the short term, as part of the regular risk assessment of EU banks, a sensitivity analysis for climate risks is planned to be undertaken by the EBA in 2020. The sensitivity analysis intends to shed light on the climate-related risks in the banking sector and aims to help to get a better understanding of banks' vulnerabilities to climate risks.

Deposit base still increasing

The relevance of deposits in bank funding has continued to increase, in spite of average deposit rates at historically low levels in 2019. The share of customer deposits in total liabilities further rose from 55.3 % in June 2018 to 55.6 % in June 2019, its highest level since December 2014. The strong increase in deposits, at a faster pace than the rise in loans, resulted in a decreasing loan-to-deposit ratio, which is now standing at 116.4 % (June 2018: 118.3 %; Figure 35). These trends confirm the strategy of EU banks to focus on more stable sources of funding, in particular on retail deposits.

Responses to the RAQ indicate that retail deposits are expected to remain an important element in banks' funding strategies, as they were the second most mentioned type of liability banks intend to attain more of (Figure 39). Data collected on funding plans confirms that banks expect deposits from households and from NFCs to grow strongly (by more than 10 %) over the forecast period 2019-2021 (Figure 38) ([30]).

Figure 35: Loan-to-deposit ratio dynamics (trends of numerator and denominator)
Source: EBA supervisory reporting data



([30]) See EBA, *Report on Funding Plans*, 28 August 2019, based on a sample of 160 EU banks (https://eba.europa.eu/documents/10180/2908903/EBA+2019+Report+on+Funding+Plans.pdf).

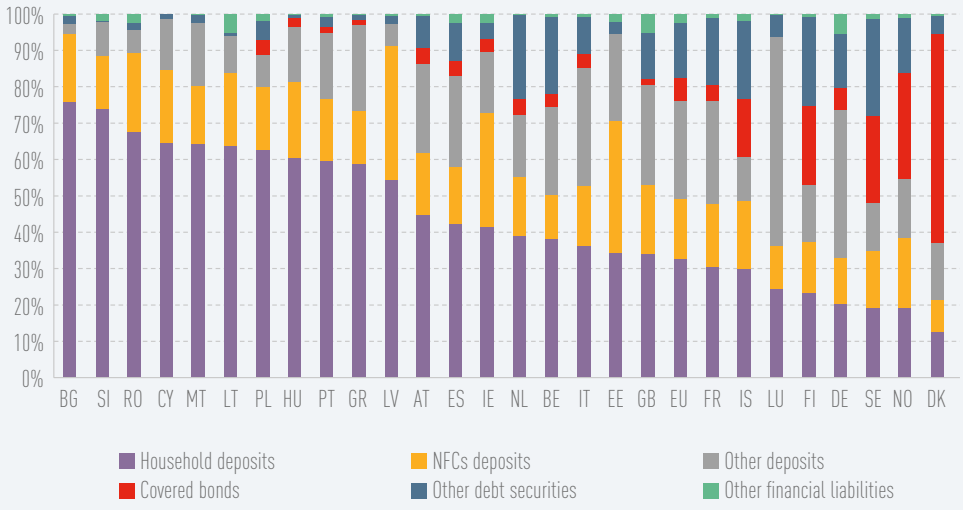
Impact of negative rates on bank deposits

Strategies aimed at further increasing the deposit base may prove challenging in an environment of more widely used negative interest rates. A growing number of banks has introduced or is considering introducing negative deposit interest rates or fees in 2019 and 2020. In the case of household clients, these announcements usually apply to deposits above a certain threshold, for instance exceeding EUR 100 000 (or the equivalent in local currency). However, there are also uncertainties over depositor reactions and the implications for volumes of deposits, should negative interest rates or fees related to deposits be introduced more widely.

To date, the volume of deposits subject to charges is still low in relation to total deposit volumes. Data indicates that around 3 % of EU banks charge negative rates on household deposits, and around 22 % on deposits from NFC clients ([31]). Some reluctance to charge for deposits can be observed, mainly driven by legal considerations and uncertainties about depositor responses to negative rates. Should banks refrain from charging deposits, they might find it more attractive and cheaper to resort to negative yielding instruments, e.g. TLTRO III or covered bonds. If this were the case, funding strategies to attract more deposits would be challenged.

The impact on banks from negative rates, as well as their ability to potentially replace them with market-based instruments, depends mainly on their current funding structure (Figure 36). In particular, smaller banks with a less frequent presence on wholesale markets might face more difficulties to attract market-based funding and, hence, the advantages of substituting deposits for debt securities fades away. Moreover, banks that are more reliant on deposit funding might refrain from charging negative rates in order to not endanger this funding source.

Figure 36: Breakdown of financial liabilities composition by country — June 2019
Source: EBA supervisory reporting data ([32])



([31]) Share of banks reporting more than insignificant interest income from respective deposits as of Q2 2019. Interest income from deposits might not only result from negative rates, but e.g. also from corrections of wrongly charged interest and other effects.

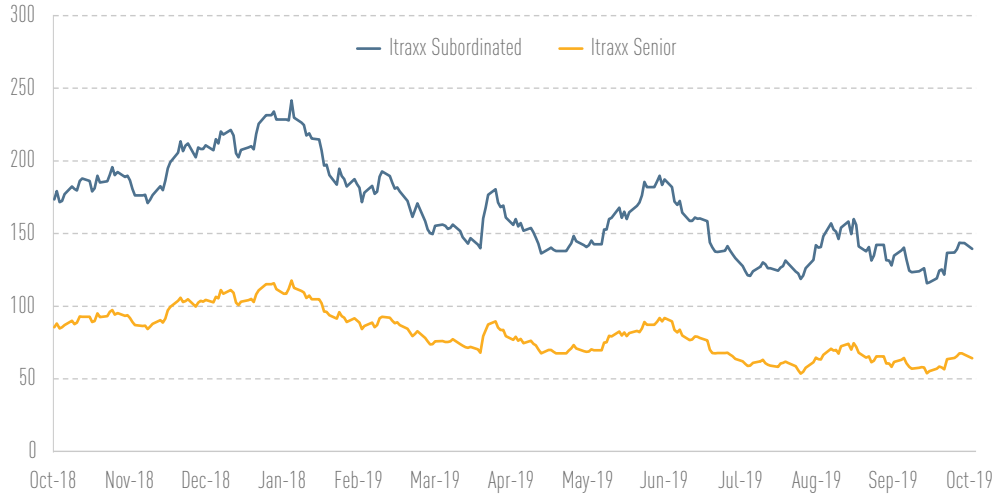
([32]) Other debt securities include those, which are not covered bonds.

Market-based funding: declining spreads, but persisting volatility

Spreads of all market funding instruments have been on a decreasing trend for most of 2019, after they had gradually increased until January 2019. ITraxx data for European financials for both senior unsecured and subordinated debt indicate a gradual tightening in 2019. Spreads between unsecured and covered bonds, and between senior unsecured and subordinated instruments have also narrowed. In an environment of very low interest rates, narrowing spreads might be attributable to increased demand of investors for higher yielding debt instruments, which are lower in the hierarchy of capital stack.

Several bouts of spread volatility materialised in 2019 and were often related to political events such as elections in EU Member States or Brexit uncertainties and global trade tensions (see Chapter 1). Volatility was also related to bank sector specific factors such as a deteriorating outlook for profitability and changing investor risk perceptions about bank debt instruments. Trading market liquidity has mostly displayed resilience throughout the year, including in times of heightened market uncertainties.

Figure 37: iTraxx financials (Europe, senior and subordinated, 5 years, bps)
Source: Bloomberg, EBA calculations



Strong liquidity positions, but some challenges loom

EBA monitoring of liquidity coverage requirements indicates overall strong liquidity positions. A weighted average liquidity coverage ratio (LCR) of 149 % at end-December 2018 implies ratios well above the minimum LCR requirement of 100 % ([33]). Steadily improving ratios since September 2016 have been driven by an increase in the banks' holdings of high quality liquid assets (HQLAs). Large volumes of these holdings now carry negative yields, which increases banks' costs. It might also incentivise banks to optimise their liquidity buffers.

Some banks hold significant amounts of foreign (non-domestic) currencies in their funding profiles. Among the significant foreign currencies, the EBA liquidity monitoring has identified that USD and pound sterling (GBP) are those that show the lowest LCR levels for EU banks. While banks can, in general, swap foreign currencies, the ability to do so may be constrained in stressed conditions with potential challenges to access liquidity.

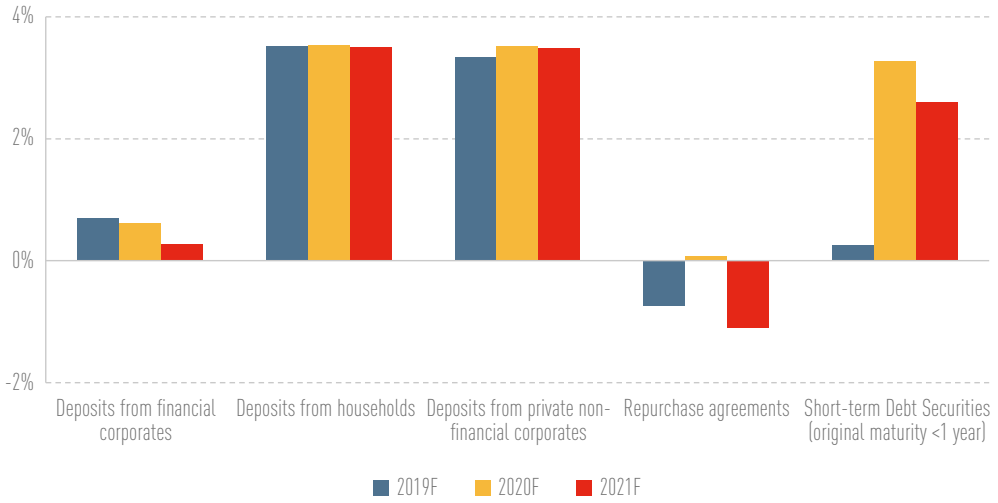
Focus on loss-absorbing capacity in banks' primary-market activity

Market data suggests that the total issuance volume of unsecured funding, senior and subordinated, slightly increased in the first 8 months of 2019 compared to the year before. The increase is mainly attributable to additional Tier 1 (AT1) instruments and bail-in-able senior debt instruments, while issuance volumes of preferred senior debt instruments and Tier 2 (T2) instruments broadly remained stable compared to last year.

Data collected on bank funding plans confirms that banks expect unsecured long-term debt instruments, which include loss-absorbing instruments, to be the type of liability with the highest growth rate in 2019 and

([33]) See EBA, *Report on Liquidity Measures under Article 590(1) of the CRR*, 2 October 2019, based on a sample of 136 banks, (https://eba.europa.eu/documents/10180/2551996/EBA+Report+on+Liquidity+Measures+under+Article+509%281%29%20of+the+CRR.pdf).

Figure 38: Bank funding plans — expected growth in selected liability classes, 2019-2021 (F = forecast)
Source: EBA Report on Funding Plans

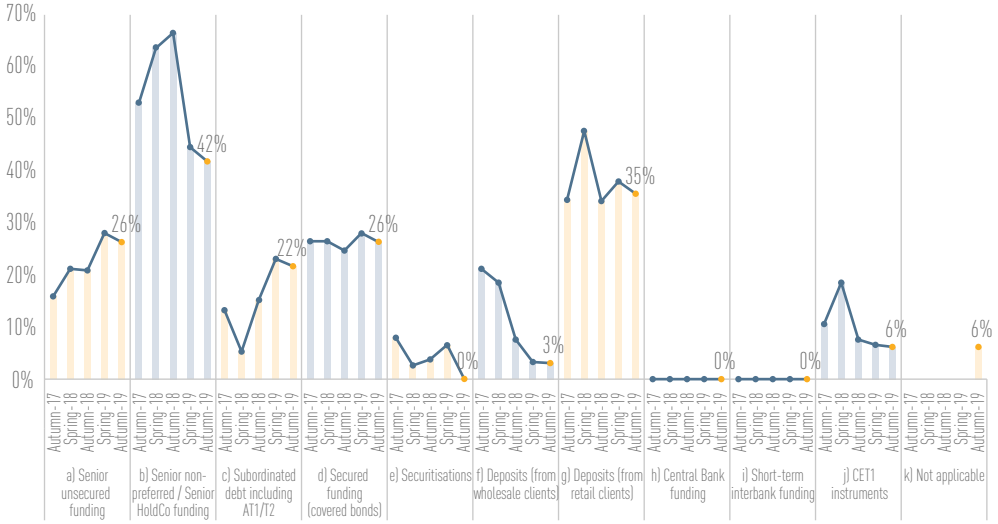


the following years (Figure 38). The volume of unsecured long-term debt instruments is expected to grow strongly (by more than 14 %) over the period 2019-2021. Long-term secured funding is also expected to grow by 10.9 % in this time period.

Reaching the required amounts of MREL-eligible instruments is essential for EU banks. Since 2016, resolution authorities across the EU have gradually set MREL targets, starting with the largest banks. Some form of MREL targets have meanwhile been communicated to all global systemically important institutions (G-SIIs) and other systemically important institutions (O-SIIs) in the EU, and some banks have already reached the required targets. Also looking forward, volumes of MREL-eligible instruments banks need to attain per year will be affected by the pace at which resolution authorities require banks to meet targets for loss-absorbing capacity, in particular after the introduction of a transitional period up to 2024 by the recently agreed Banking Package ([34]). There is an additional possibility of exceptional prolongations beyond this point.

The revised Bank Recovery and Resolution Directive (BRRD 2) may have an additional impact on the required volumes of MREL. BRRD 2 requires greater levels of subordination, which may further explain expectations of increased issuance volumes of subordinated debt. Among other things, some long-term

Figure 39: Intentions to attain more funding via different funding instruments
Source: EBA RAQ for banks



[34] See https://ec.europa.eu/commission/presscorner/detail/en/MEMO_19_2129.

deposits that might have been eligible for MREL prior to BRRD 2, will now be excluded. These long-term deposits are expected to be substituted by unsecured debt.

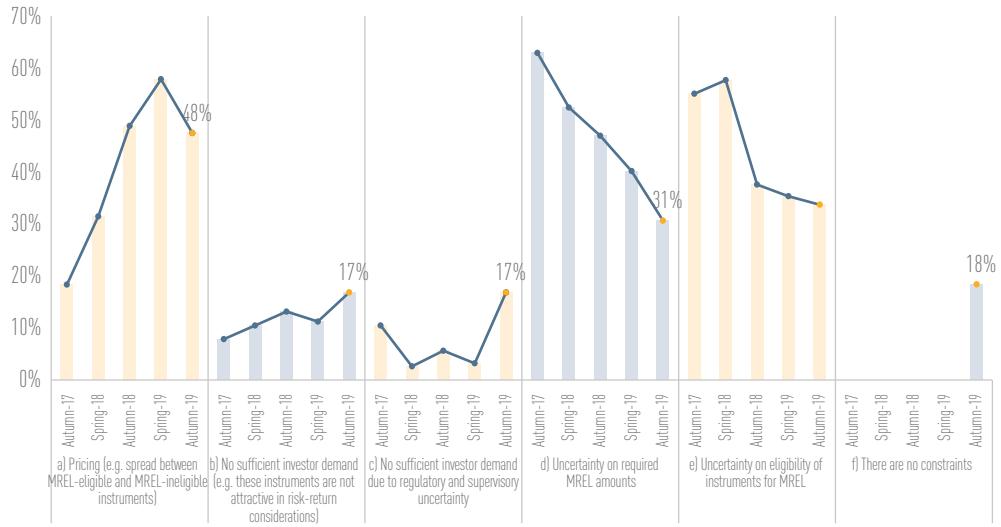
Responses to the RAQ confirm that the implementation of MREL requirements is a key driver of funding strategies, and indicate instruments eligible for MREL are the most important source of funding that banks intend to attain (Figure 39). Analysts share expectations that instruments eligible for MREL are of high relevance in banks' funding strategies.

Challenges to meet MREL requirements

RAQ responses from autumn 2019 show that banks still consider the pricing of instruments eligible for MREL as the most relevant constraint to issue these instruments, although the share of pricing as most relevant argument has decreased compared to the previous RAQ iteration. Conversely, the share of RAQ responses pointing to doubts about sufficient investor demand has increased strongly, and points to persisting concerns about market capacity to absorb all the MREL volumes banks still need to issue.

Challenges to attain the required volumes of MREL via debt issuance might persist, in particular for banks with weaker market perceptions and some medium-sized banks domiciled in countries affected by the sovereign crisis. These challenges could be amplified by the low profitability that these banks often face. However, investor search for yield has resulted in a benign funding-market sentiment. Banks with larger MREL shortfalls should take advantage of these conditions to accelerate the issuance of loss-absorbing instruments.

Figure 40: Constraints to issuing subordinated instruments eligible for MREL
Source: EBA RAQ for banks



Banking sector risks related to benchmark rate replacement initiatives

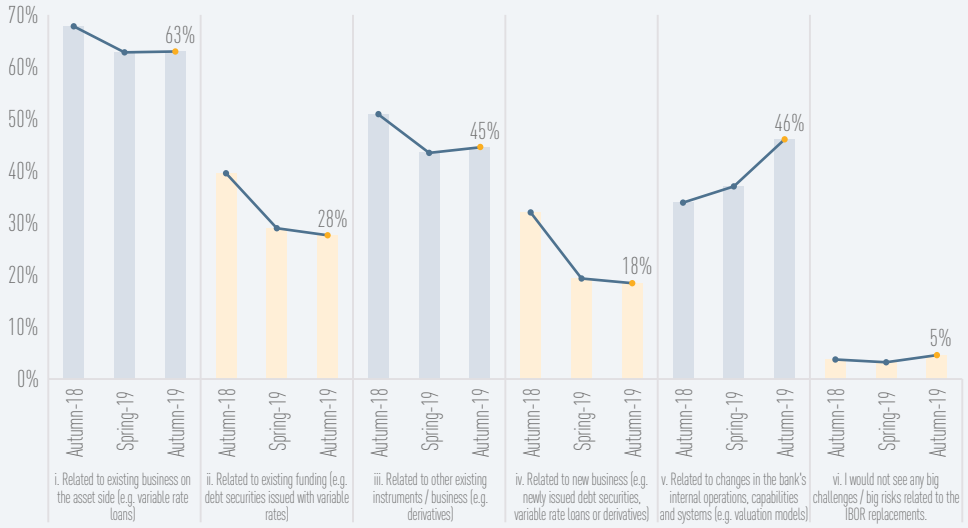
Several initiatives are ongoing in the area of benchmark rate replacements. They include the introduction of the euro short-term rate (€STR), which the ECB published for the first time on 2 October 2019 ([35]). Further initiatives deal with the replacement of other reference rates, which are commonly referred to as Interbank Offered Rate (IBOR) benchmark rates. These rates have a key role in banks' client business as well as treasury and other functions, where they are applied as a point of reference in lending, refinancing and derivative related activities ([36]). As such, they implicitly affect banks' risk management and other back office functions, including their consideration in banks' valuation models.

When asked in the RAQ about challenges and risks in the preparation for the benchmark rate replacements, banks mainly point to those related to existing business on the asset side, such as issues related to

([35]) https://www.ecb.europa.eu/stats/financial_markets_and_interest_rates/euro_short-term_rate/html/index.en.html

([36]) See also last year's risk-assessment report, covering the risks related to the benchmark rate replacements, p. 41 onwards (https://eba.europa.eu/documents/10180/2518651/Risk_Assessment_Report_December_2018.pdf).

Figure 41: IBOR benchmark rate replacements: areas of biggest challenges and risks for banks
Source: EBA RAQ for banks

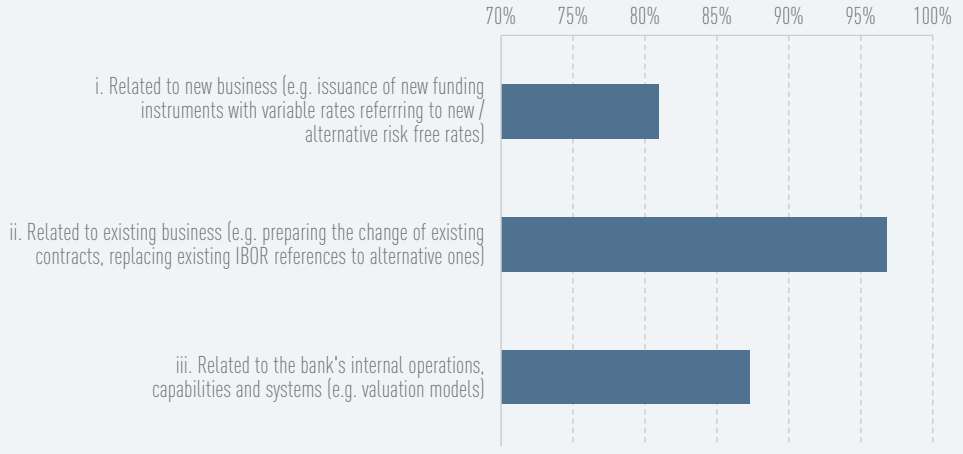


variable rate loans (63 %, unchanged compared to June 2019). It is now followed by challenges and risks related to internal operations, capabilities and systems, including valuation models, which saw a strong increase from 37 % in spring to 46 % now.

Challenges and risks related to existing derivative contracts and similar issues (second place in June 2019) still have a similar share (45 % now and 43 % in spring). The fact that the topic is now broadly discussed, with the introduction of new benchmark rates and similar developments, might be the reason why the challenges and risks related to new business have continued their decline with a slight decrease from 19 % in spring to 18 % now (Figure 41).

The RAQ results also show that a majority of banks is now working on solutions for the replacement of IBOR benchmark rates (97 % agreement, up from 85 % in spring 2019). Out of those agreeing with this statement, 97 % (88 % in spring 2019) are working on solutions related to existing business, which comprise the replacement of references to benchmark rates in existing contracts. This is followed by work on banks' internal operations, capabilities and systems, such as valuation models (87 %, up from 72 % in spring). 81 % of the banks are working on solutions related to new business (82 % half a year ago; Figure 42). The results indicate that the vast majority of banks seem to be aware of the changes of benchmark rates and are now dealing with the related challenges for their existing and new business.

Figure 42: IBOR benchmark rate replacements: areas in which banks are working on
Source: EBA RAQ for banks



4. Capital

Capital ratios have remained unchanged in the past year

European banks have maintained their capital ratios despite a pick-up in RWAs in the past year. As of June 2019, the average CET1 ratio stood at 14.6 % (on a transitional basis), almost unchanged compared to June 2018 (14.5 %). Based on a fully phased-in definition, the CET1 ratio showed a similar trend, rising slightly from 14.3 % to 14.4 % YoY (June 2019).

The same trend applies to the total capital ratio, which remained at a similar level to that of 2018 (18.9 % as of June 2019 vs 18.8 % 1 year before). The AT1 component has maintained the level of 1.5 % ([37]), while the T2 com-

Figure 43: Capital ratios (transitional definitions)
Source: EBA supervisory reporting data

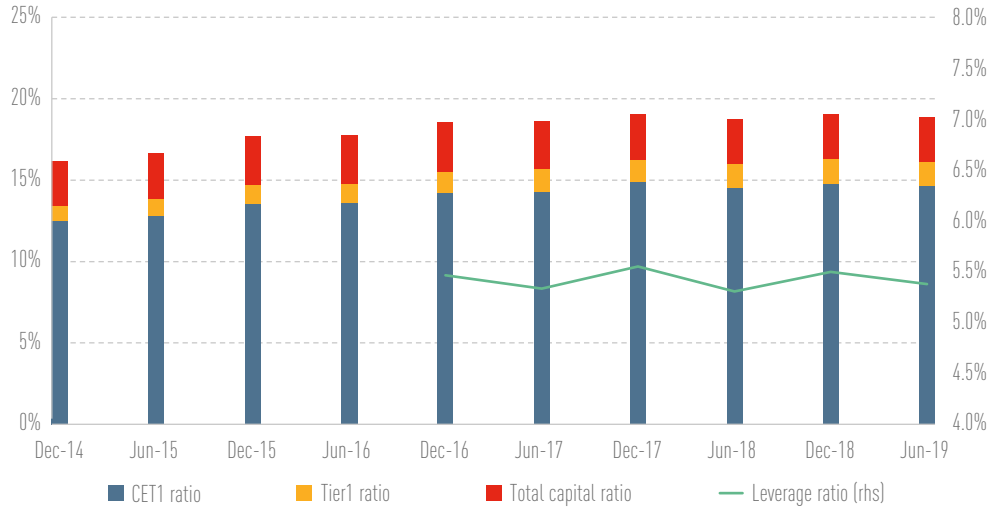
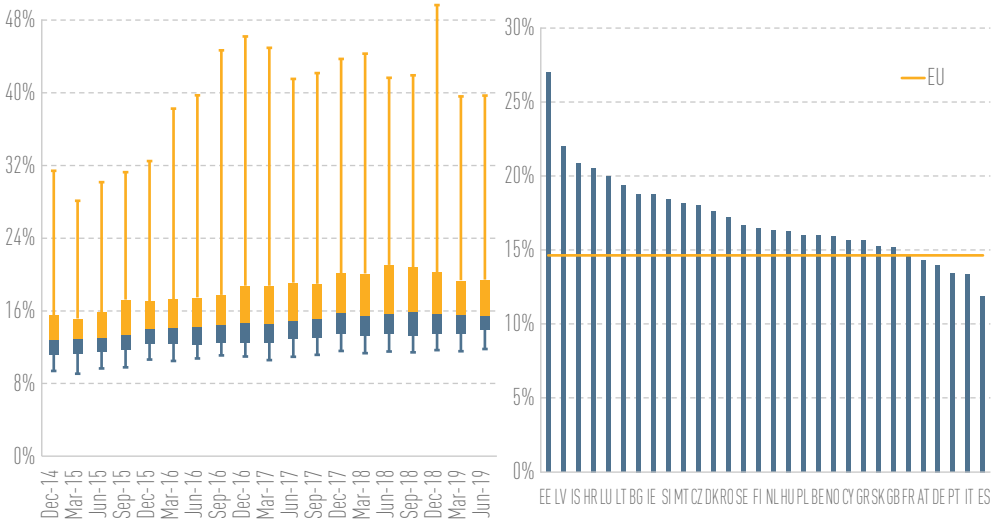


Figure 44: CET1 ratio dispersion, 5th and 95th percentile, interquartile range and median (left) and by country (June 2019; right)
Source: EBA supervisory reporting data



([37]) 30 % of the banks in the sample reported AT1 capital of at least 1.5 %, which is nearly unchanged compared to last year (32 %).

ponent stood at 2.7 % ([38]). As of June 2019, the leverage ratio stood at 5.4 % and as such remained nearly unchanged compared to June 2018 (5.3%; Figure 43).

Notwithstanding a still wide dispersion, banks on the lower ends have increased their ratios. For the 5th percentile the CET1 ratio increased from 11.5 % to 11.8 %, and for the first quartile from 13.5 % to 13.9 % between June 2018 and June 2019 (Figure 44). It indicates that banks with rather lower capital ratios constantly aim to improve them. This trend might also be explained by supervisory requirements.

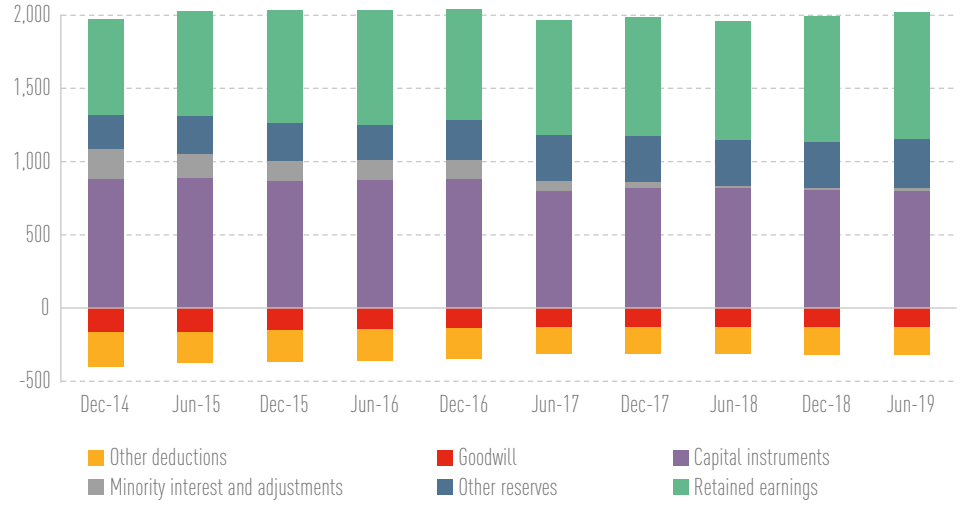
The level of capital eligible as CET1 as of June 2019 has increased by 3 % compared to 2018. Retained earnings and other reserves, which together make up almost 70 % of total CET1, have both increased by 7 % and as such were the main driver behind the overall increase. The increase in retained earnings and other reserves was partly offset by a decrease in capital instruments and higher deductions compared to 2018 (Figure 45). The decrease in capital instruments (paid-in capital and share premium) suggests that banks are still reluctant to issue new shares and that some banks have performed share buy-back programmes as seen in previous years ([39]).

RWA increasing at same pace as capital

The increase in CET1 was matched by an increase in RWA, which grew by 2.5 % compared to June 2018. Similar to the development in asset volumes, this marks a significant change in trend after several years of declining or flat RWA. Credit risk, which makes up 80 % of total RWA, increased by roughly 2.3 % since June 2018, which is lower than the growth in total assets (3 %) and even significantly less than the rise in total loans (3.5 %, see Chapter 2.1). These developments indicate that credit RWA are not only driven by trends in banks' assets, but also changes in the composition of banks' exposures and risk parameters such as probabilities of default (PDs) and loss given defaults (LGDs). Similar to credit RWA, also operational risk, which accounts for 10 % of total RWA, has increased by 1.5 % YoY (June 2019). Market risk, on the other hand, has decreased by almost 4 %, continuing a long-term trend that could be observed since 2015 (Figure 46).

Focusing on credit RWA, which represent the biggest share of banks' RWA, data shows that the increase was stronger for retail exposures, in particular mortgages (+ 3.5 % since June 2018), and corporates (+ 3.3 % since June 2018). This also mirrors the findings on lending trends (see Chapter 2). Other exposures not allocated to any of the major exposure classes have increased by almost 5 % over the last year. Among these other exposures, RWA growth was stronger for items that are associated with particular high risk, which include investments in venture capi-

Figure 45: Evolution of CET1 components (EUR bn)
Source: EBA supervisory reporting data



([38]) 45 % of the banks in the sample reported T2 capital of at least 2 %, which compares to 50 % 1 year ago.

([39]) As identified, for example, in RAR 2017 (https://eba.europa.eu/risk-analysis-and-data/risk-assessment-reports).

Figure 46: Evolution of RWA, by risk type (EUR tn)
Source: EBA supervisory reporting data

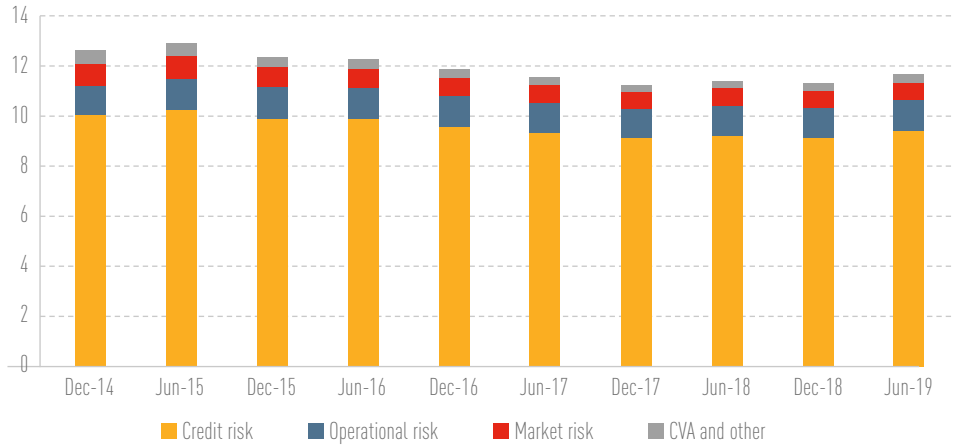
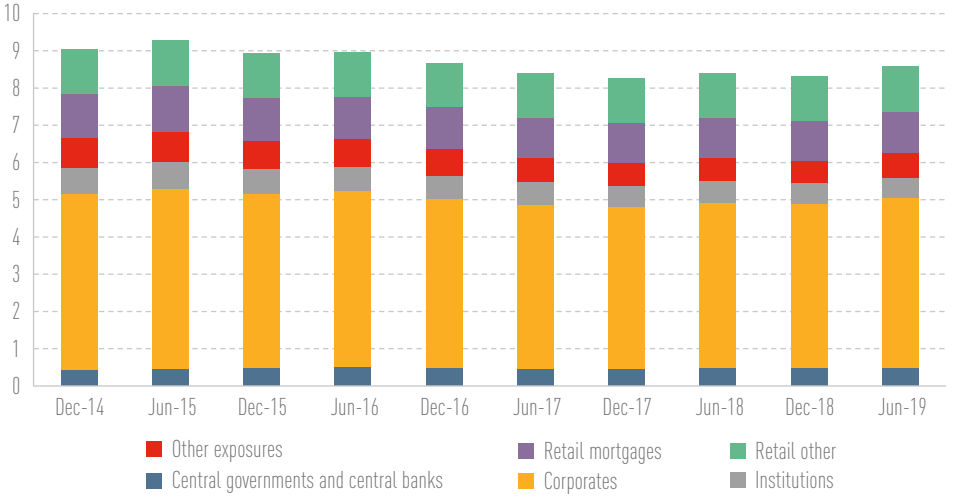


Figure 47: Credit-risk RWA, by main (loan) exposure classes, excluding e.g. securitisation and equity holding related RWA (EUR tn)
Source: EBA supervisory reporting data



tal firms and in private equity (+ 18 %) ([40]). In contrast to retail and corporate exposures, RWA for institutions, central governments and central banks have declined since 2018, by 9 % and 1 % respectively (Figure 47). Also the latter reflects a development identified in asset volume trends, showing declining exposures to central banks (see Chapter 2.1).

Capital buffers are widely dispersed among countries

In addition to minimum capital requirements, banks are also required to build up capital buffers to guard against systemic or other risks in the banking sector. The capital conservation buffer (CCoB) is set at 2.5 % of RWA according to the primary legislation, corresponding to EUR 290 bn. Other buffers are left to the discretion of the competent authorities and are widely dispersed. Buffers for G-SIIs and O-SIIs amounted to EUR 120 bn of capital and correspond to around 1 % of RWA. While the buffer for systemically important institutions is applied in many countries, it varies significantly across jurisdictions (Figure 48). This is mainly due to differences in the structure of national banking systems, for instance the number and relevance of O-SIIs in a country or where a G-SII is domiciled. However, differences in the application and setting of the O-SII buffer also contribute to this distribution.

The systemic-risk buffer (SyRB) and the countercyclical capital buffer (CCyB), which amounted to EUR 45 bn and EUR 30 bn, re-

([40]) A list of exposures classified as high risk is included in Article 128 of the CRR. See also the EBA *Guidelines on specification of types of exposures to be associated with high risk* (https://eba.europa.eu/regulation-and-policy/credit-risk/guidelines-on-specification-of-types-of-exposures-to-be-associated-with-high-risk).

Figure 48: Capital buffer requirements as % of RWA, by country – June 2019
Source: EBA supervisory reporting data ([41])

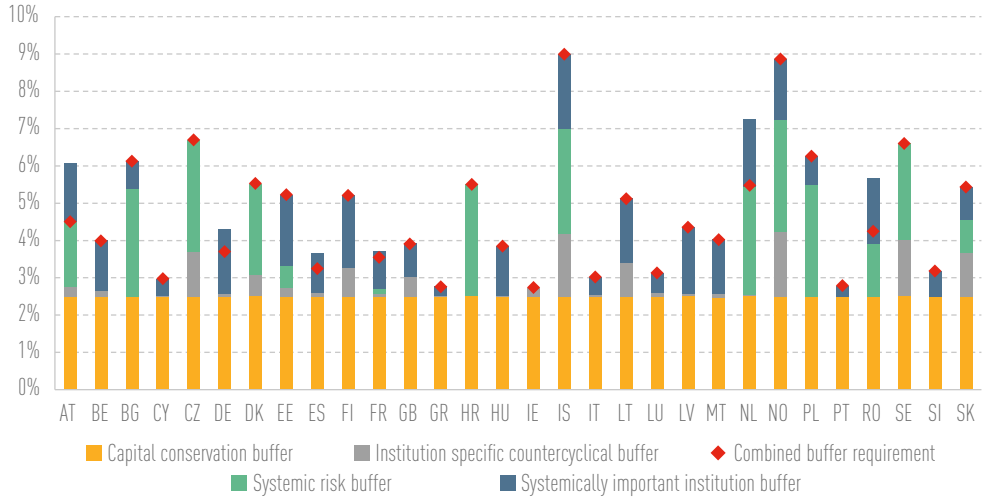
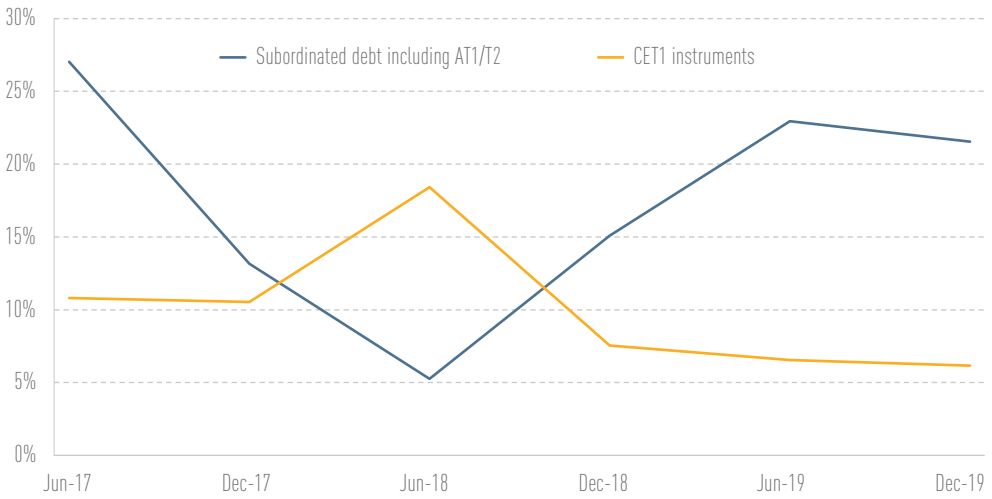


Figure 49: Percentage of banks that intend to issue more capital instruments in the next 12 months
Source: EBA RAQ for banks



spectively, corresponded to 0.4 % and 0.3 % of RWA. The SyRB has been applied predominantly in smaller economies. In the case of institutions in small economies with a focus on their home market, the application of the SyRB might have been driven by the systemic risk of their domestic exposures. In the case of institutions in small economies, which are strongly geographically diversified, the application of the SyRB might derive from their exposures in certain foreign jurisdictions or regions. As regards the CCyB, its application could be justified by the substantial credit growth reported in recent years by some European banks (more details on lending trends are covered in Chapter 2.1).

([41]) The buffers requirements are added up in this chart, and do not necessarily show the combined buffer requirement, which is indicated separately in the Figure.

Banks do not expect to raise CET1 capital

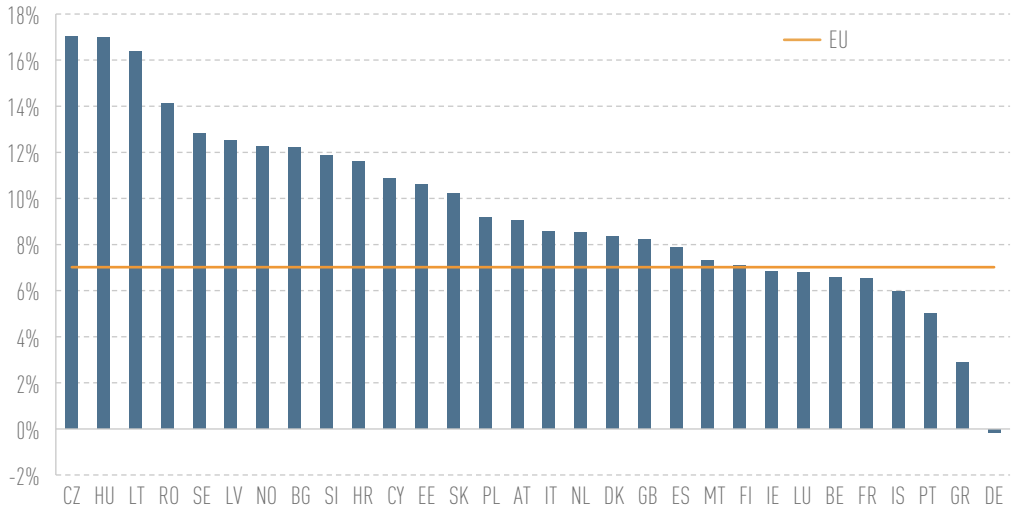
Despite the expected rise in capital requirements driven by the completion of the Basel III reforms, banks do not expect to issue more CET1 instruments in the near future ([42]). Based on the RAQ results, the percentage of banks that envisage issuing CET1 instruments in the following 12 months decreased to about 6 %, the lowest level recorded since 2015 (Figure 49). Besides other factors, this might also be explained by banks low market valuation. With PtB multiples below 1 for a big part of EU banks (see Chapter 1), banks might find it challenging to raise new capital.

([42]) See on the impact estimates from Basel III reforms on EU banks the EBA report *Basel III reforms: impact study and key recommendations* (https://eba.europa.eu/documents/10180/2886865/Basel+III+reforms+-+Impact+study+and+key+reccomendations.pdf).

5. Profitability

Despite some improvement in the past few years, profitability remains at low levels. Low profitability limits banks' capacity to generate capital organically and to fund loan growth as well as to pay dividends. As of June 2019, the average return on equity (RoE) was 7.0 %, slightly below the level observed in June 2018 (7.2 %). In the latest RAQ less than 60 % of the banks answered that their RoE was above their CoE and, more than 80 % of the responding banks acknowledged that their CoE was above 8 %. Similarly to the RoE, the average return on assets (RoA) and return on risk-weighted assets (RoRWA) decreased marginally YoY to 0.47 % (0.48 % in June 2018) and 1.20 % (1.24 % in June 2018), respectively.

Figure 50: RoE by country – June 2019
Source: Supervisory reporting data



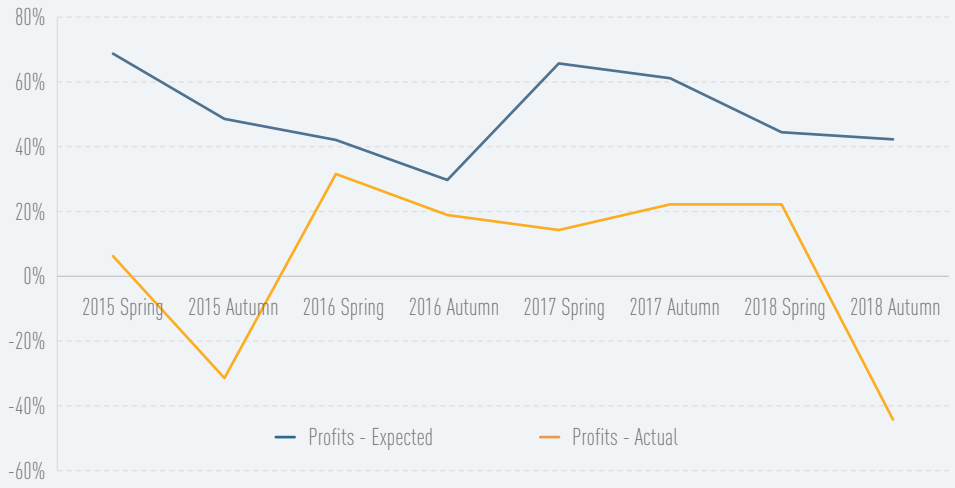
Backtesting of RAQ results: how banks meet their expectations

Forecasts, such as the expectations expressed in the RAQ, regularly raise the question about their explanatory power. It comes without doubt that they can hardly be 100 % accurate. An analysis of the RAQ results between 2015 and 2018 shows that the share of banks (measured as a net percentage of those answering) which expect an overall increase in their profitability in the next 6 to 12 months has been above 40 % for nearly all periods since 2015 ([43]). However, the share of banks (again measured as a net percentage of the same sample) that actually increased their profitability, has been constantly lower at around 20 % for several periods between 2016 and 2018, and even in the negative territory in 2015 and 2018 (Figure 51) ([44]).

([43]) The net percentage is applied to show whether the proportion of banks expecting an increase in profitability is higher or lower than the share of banks expecting a decline, with those having no opinion or answering n/a (i.e. assuming that profitability levels do not change) not directly considered in the net position. The results are not weighted for this analysis.

([44]) The actual change of profitability is measured as an average of banks' RoE in the three quarters following the respective RAQ, vs the average of the preceding three quarters.

Figure 51: Changes in overall profit expectations — net percentage of banks expecting an increase in profits vs net percentage of banks seeing an actual increase in profits in the respective forecasted period
Source: EBA RAQ for banks, supervisory reporting data



Considering all periods covered in this analysis on a bank-by-bank level, on average 12 % of the banks included in the RAQ exceed their expectations (i.e. they actually increased their RoE), even though they had expected a contraction of their profitability for the same period ([45]). The share of banks that miss their expectations (i.e. banks that expected an increase in profitability, but actually saw a contraction of their RoE) is on average 35 %.

These results show, on the one hand, that uncertainties are always inherent in forecasts. On the other hand, they might indicate that banks are presumably rather ambitious in their plans, since if they were not, they would lack targets for their management and employers. These targets might be set rather higher than lower, to reflect an ambitious managerial approach.

However, even though the results indicate that 35 % of the banks might be too optimistic, it cannot be judged whether they are as such also overly ambitious. Such judgement might then depend on the concrete targets set, which is not covered by the RAQ, and the question, if certain banks constantly miss their targets. The latter is the case for a rather small share of the banks in the RAQ sample, with around 13 % of them showing for five periods a missing of their targets. None of the banks actually misses their forecasts more than five times.

([45]) Whereas the former analysis looked at the group of banks, this analysis provides a comparison on the level of individual banks whether they met their expectations or not.

The contribution of each item of the profit and loss (P&L) account to the RoE in 2019 (calculated as the ratio of each P&L item to total equity) was broadly similar to June 2018 (Figure 52). Nonetheless, on the income side, a spike is observed in the contribution of trading income (3.8 % in June 2019 vs 2 % in June 2018). On the cost side, other administrative expenses (i.e. those besides staff expenses) dropped (7.3 % vs 8.1 % a year before), which might indicate that banks have applied cost-saving measures or that one-off expenses were reduced in 2019 compared with 2018. Staff expenses did not change significantly. Conversely, the negative contribution of impairments rose from 2.1 % to 2.7 %, in line with the increase observed in the cost of risk (Figure 52).

Figure 52: Contribution to RoE of the main P&L items, calculated as a ratio to total equity, June 2018 (left) vs June 2019 (right)
Source: Supervisory reporting data

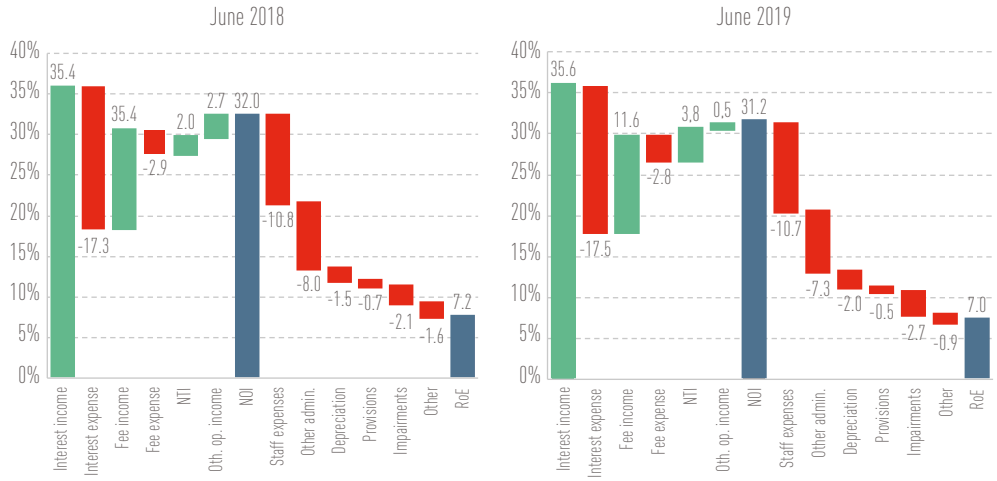
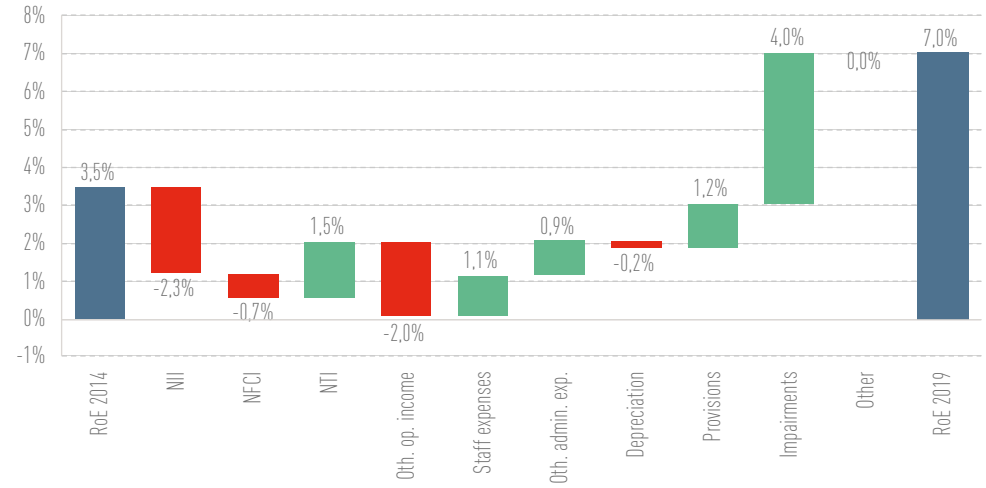


Figure 53: Contribution to the improvement in RoE of the main P&L items, calculated as a ratio to total equity, since December 2014
Source: Supervisory reporting data



Comparing longer-term trends, the increase in profitability has mostly been driven by declining costs, mainly impairments, which came in parallel to the banks' general improvement in asset quality (see Chapter 2.2). Operating expenses, including staff and other administrative expenses as well as depreciation, contributed with 1.8 pp to the increase of the RoE observed between 2014 and 2019. However, this latter contribution has been far outweighed by the negative trend of net operating income (NOI) ([46]) (– 3.4 pp), driven mainly by a drop in net interest income (NII).

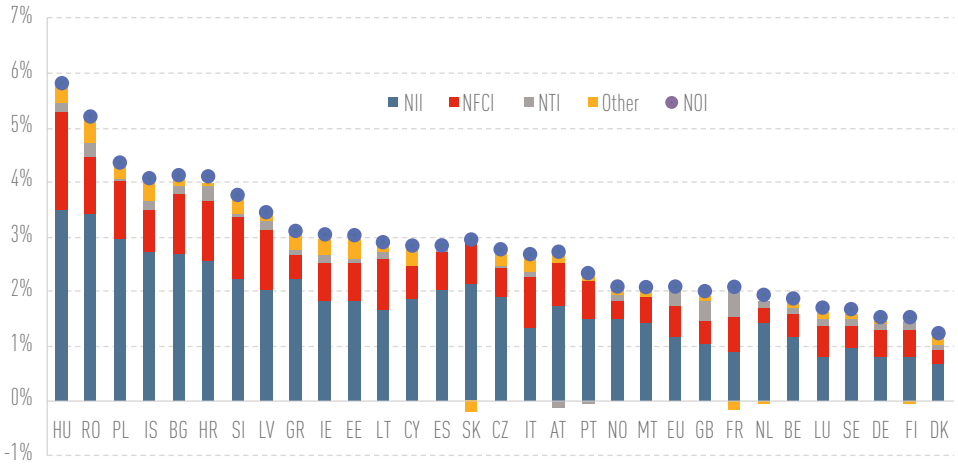
5.1. Revenues

Rising interest income driven by increasing volumes

In a context of decelerating economic growth and decreasing interest rates, banks manage to increase their NOI by 1.1 % from June 2018 to June 2019. However, the ratio between NOI and total assets fell from 2.08 % to 2.03 %, as the denominator increased more than the numerator.

([46]) NOI includes net interest, net fee and commission income and net trading income as well as other operating income.

Figure 54: Breakdown of NOI as a percentage of total assets – June 2019
Source: Supervisory reporting data



The increase in NOI is mainly explained by the rise in NII, which forms a key part of banks' NOI (57.9 % in June 2019, up from 56.8 % in June 2018). Against the backdrop of low margins, NII rose by 1.8 %, due to a 2.5 % increase in interest earning assets (see Chapter 2.1 on trends in asset volumes). The net interest margin (NIM) was stable YoY at 1.43 %, its lowest level for a second quarter of the year since data is available. Nonetheless, there are material differences in NIM between countries. Generally, they are more elevated in CEE countries where official central-bank rates are higher and the share of consumer lending in total loans is comparatively high (see Chapter 2.1). For instance, banks in Hungary, Poland and Romania show NIMs above 3 %. On the other end, NIMs are below 1 % in countries such as Denmark and Finland, where rates have been low or even negative for a prolonged period of time and where banks are rather focused on domestic business and are less geographically diversified.

Figure 55: Evolution of net interest income (NII)
Source: Supervisory reporting data

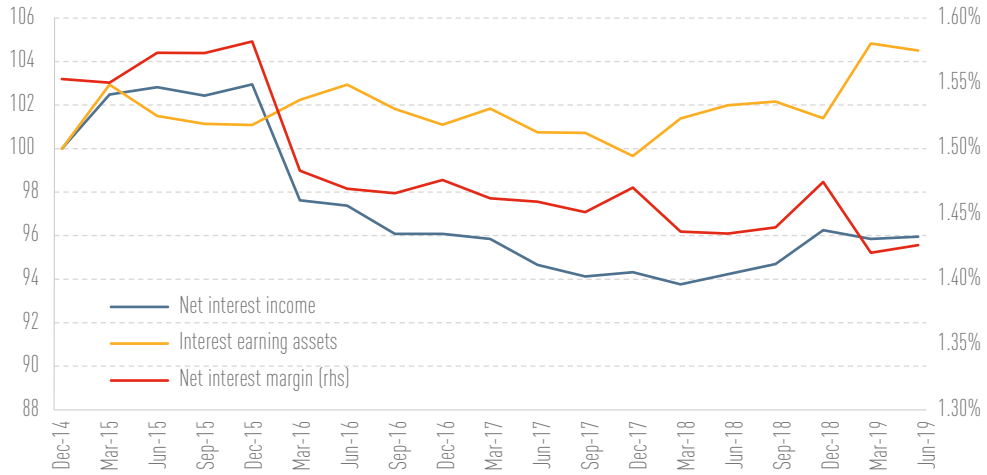
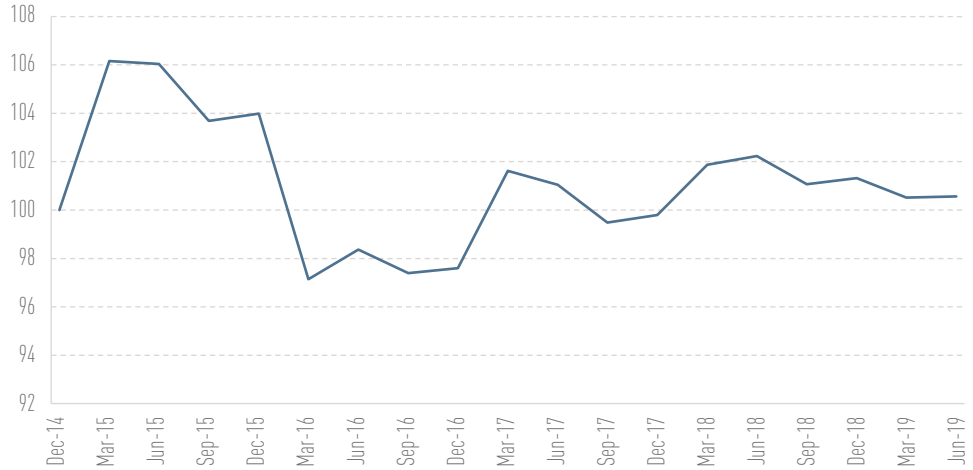


Figure 56: Evolution of net fee and commission income (NFCI)
Source: Supervisory reporting data



Net fee and commission income declined in 2019 amidst intense competition

Net fee and commission income (NFCI) contracted by 1.6 % from June 2018 to June 2019, stopping the upward trend observed since 2016. Despite a significant yearly increase in the fees related to payment services (+ 10.9 %), payment services (+ 10.9 %), the decreases in fees from other sources, namely asset management (– 2.5 %) and customer resources distributed but not managed (- 3.2 %), negatively affected this P&L line.

On the key contributing parts of fee and commission income, similar to previous years, payment services, asset management and customer resources distributed but not managed, with a combined share of fee income around 45 %, were the main sources. These are areas, in which competition from FinTech firms and other non-bank financial intermediaries (NBFI) is more intense.

The decline in NFCI, combined with the increase in NII and net trading income (NTI), has reduced its share in NOI to 28.1 % as of June 2019 (28.6 % in June 2018). Although the weight of NFCI has always been significantly lower than that of NII (around 26-29 % versus 54-59 % respectively), by focusing on fee-generating activities, banks were able to partly offset the effects of declining NIMs.

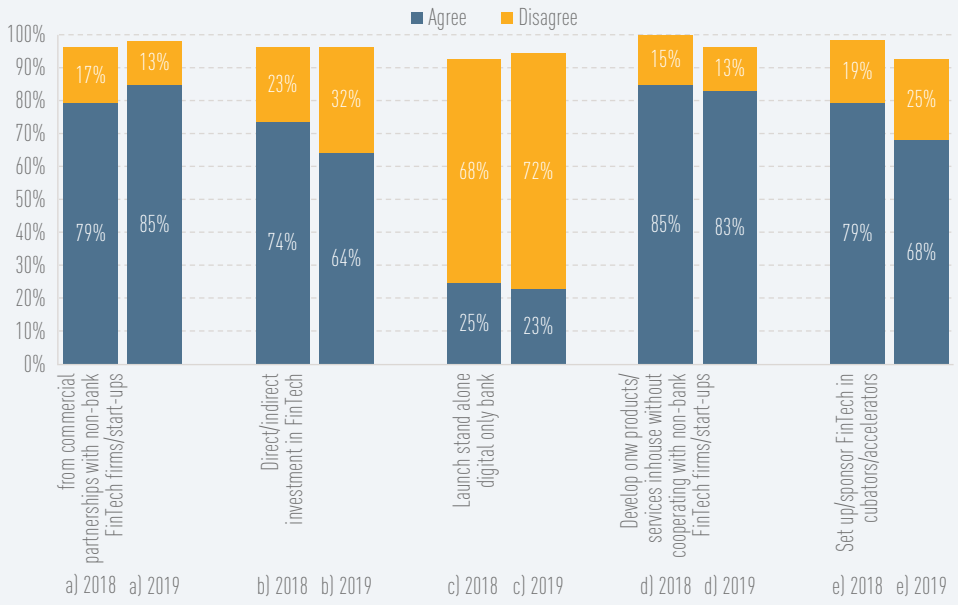
FinTech: Banks apply different means to keep up with technological developments

EU banks continue to explore potential FinTech opportunities through different means. RAQ results from banks show that commercial partnerships with non-bank FinTech firms/start-ups and developing in-house their own products/services are the most important forms of engagement (agreement of 85 % and 83 %, respectively; multiple answers possible). Breaking these figures further down shows that two out of three banks embrace FinTech both by forming commercial partnerships with non-bank FinTech firms/start-ups and, at the same time, developing in-house their own products/services without cooperating with non-bank FinTech firms/start-ups. The combination of these two is the most common strategy compared to having only commercial partnerships (14 %) or only developing in-house own products/services (17 %).

According to the RAQ results, more than 50 % of EU banks support their in-house development through the establishment or sponsorship of FinTech incubators/accelerators to provide prototype solutions on topics such as artificial intelligence and machine learning. Compared YoY, the RAQ results also show that EU banks are slightly reducing their investments in external FinTech firms (either digital/challenger banks or non-bank FinTech firms/start-ups) and internal FinTech accelerators, down by 10 % and 11 %, respectively, and shifting more into forming commercial partnerships (Figure 57).

This supports the latest overall decrease in FinTech investments in Europe during

Figure 57: Current form of engagement with FinTech — autumn 2019 (YoY) (multiple answers possible)
Source: EBA RAQ for banks



the first half of 2019 ([47]). On average, equity investments in non-bank FinTech firms/ start-ups amounted to 10.4 % of EU banks' total equity investments, according to the latest RAQ results. However, these investments are concentrated in a few banks based in France, the Netherlands, Spain and the United Kingdom, which also spend the highest amounts on information technology (IT) and digital innovation.

In 2018, IT-related expenses (such as IT upgrade/maintenance and digital innovation) accumulated on average one third of EU banks' total administrative expenses ([48]), which in nominal amounts translates to more than EUR 141 bn. On average, 17.5 % of these IT-related expenses were allocated to digital innovation/new technologies, a noticeable increase from the previous year (10 % on average). Notably, the majority of smaller EU banks (in terms of total administrative expenses) allocate much less to digital innovation, which may be an indication of a 'passive' approach on FinTech that may bring potential risks ('lagging behind'), as noted in the EBA report on the impact of FinTech on institutions' business models ([49]).

In terms of FinTech applications, the YoY comparison of RAQ results supports cloud computing as being a strategic digital technology for the EU banks with the highest growth compared to the other technologies. EU banks consider cloud an important enabler for the implementation of their digital strategies, growth and competitiveness. The use of cloud computing power for enterprise software and the use of cloud-based customer relationship management (CRM) tools and apps are mostly observed at this stage (Figure 58).

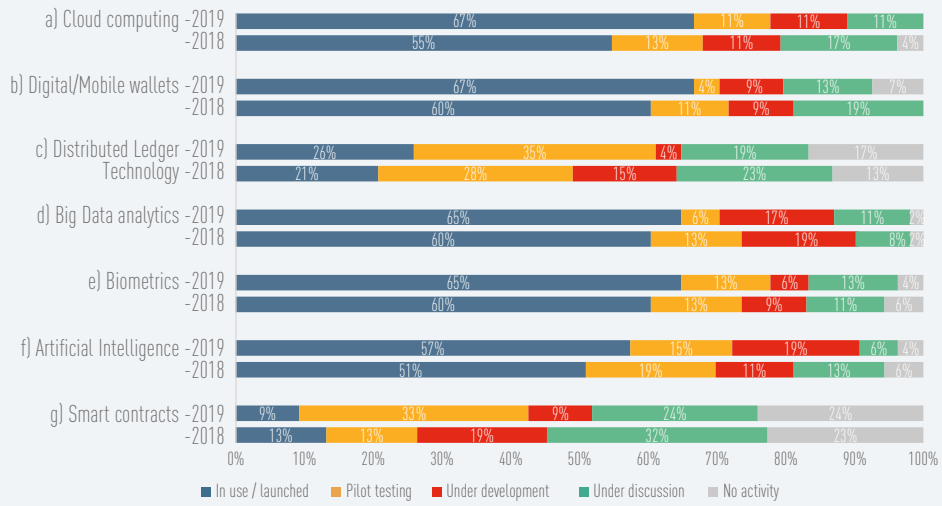
Digital/mobile wallets, artificial intelligence, big data analytics and biometric applications are already in use by more than 50 % of EU banks. In addition, as indicated in the spring 2019 RAQ, one in three EU banks uses big data analytics in customer engagement/insights, risk scoring and risk modelling and fraud detection processes. A growing interest appears for distributed-ledger technology (DLT) and smart contracts (usually considered in the context of DLT), which are still in the development phase, given the challenges of a multi-party network environment that also requires participants to define and agree on data aspects, processes, roles and responsibilities.

([47]) See KPMG, *The pulse of FinTech, 2019* (https://assets.kpmg/content/dam/kpmg/xx/pdf/2019/07/pulse-of-fintech-h1-2019.pdf).

([48]) In the meaning of 'other administrative expenses' Finrep F02.00 (row 380).

([49]) See *EBA report on the impact of FinTech on incumbent credit institutions' business models*, (https://eba.europa.eu/documents/10180/2270909/Report+on+the+impact+of+Fintech+on+incumbent+credit+institutions %27 %20business+models.pdf).

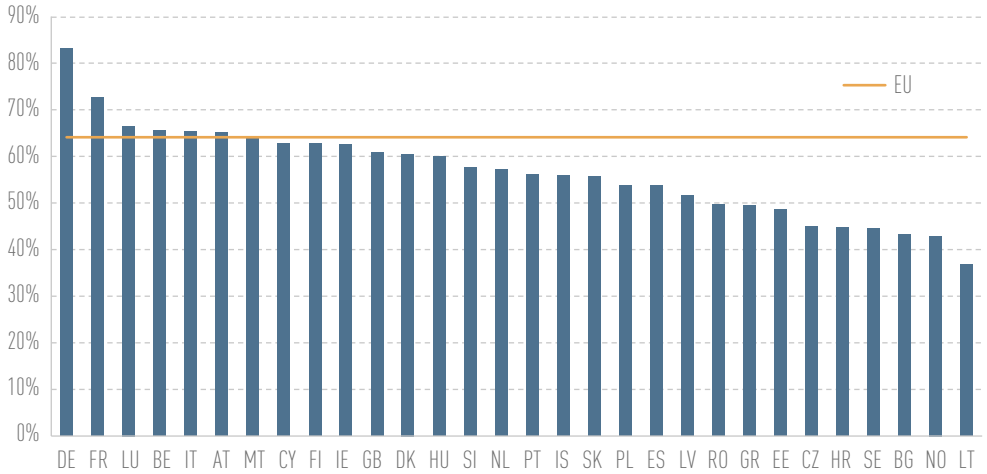
Figure 58: Status of adoption of financial technology by EU banks
Source: EBA RAQ for banks



5.2. Costs

Operating expenses grew by 1.5 % in the 12 months to June 2019, yet they declined as a percentage of total assets, from 1.33 % to 1.30 %, driven by the bigger growth of the denominator. During the same period, NOI rose by 1.1 %, and the ratio of NOI to total assets went from 2.08 % to 2.03 %. Looking at longer-term trends, in 2015, the ratios of NOI and operating expenses to total assets were 2.24 % and 1.33 %, respectively. These developments suggest banks experience some difficulties to adapt operating expenses to the contraction in NOI. As a result, the cost to income ratio (CIR) remains elevated (64.1 % as of June 2019, 63.8 % a year before).

Figure 59: CIR by country – June 2019
Source: Supervisory reporting data



Staff expenses are a key driver for banks' costs

The increase in operating expenses between June 2018 and June 2019 has been driven mainly by staff expenses (+ 2.5 %). Depreciation (+ 34 %) also contributed to the rise. The significant contraction of other administrative expenses (– 6 %) could not compensate for the rise in the other components.

Staff expenses continue to account for the biggest share of operating expenses (54 %), followed by other administrative expenses (36 %) and depreciations (10 %). However, there are significant differences between countries (Figure 60). For instance, CEE countries such as Hungary or Poland tend to show operating expenses structures characterised by a comparatively low weight of staff expenses and a high weight of other administrative expenses. The contrary can be observed in Nordic countries such as Norway and Sweden.

However, looking at different components of operating expenses measured as a percentage of total assets (Figure 61), CEE countries show both high staff and other administrative expenses. As banks in these countries benefit from comparably higher official central bank rates, it remains to be seen how operating expenses would respond in case of a rate contraction. Conversely, staff expenses and other administrative expenses are very low for Nordic countries due, to a great extent, to low branch density and higher levels of automatisation and digitalisation (Figure 64).

Figure 60: Breakdown of operating expenses by country – June 2019
Source: Supervisory reporting data

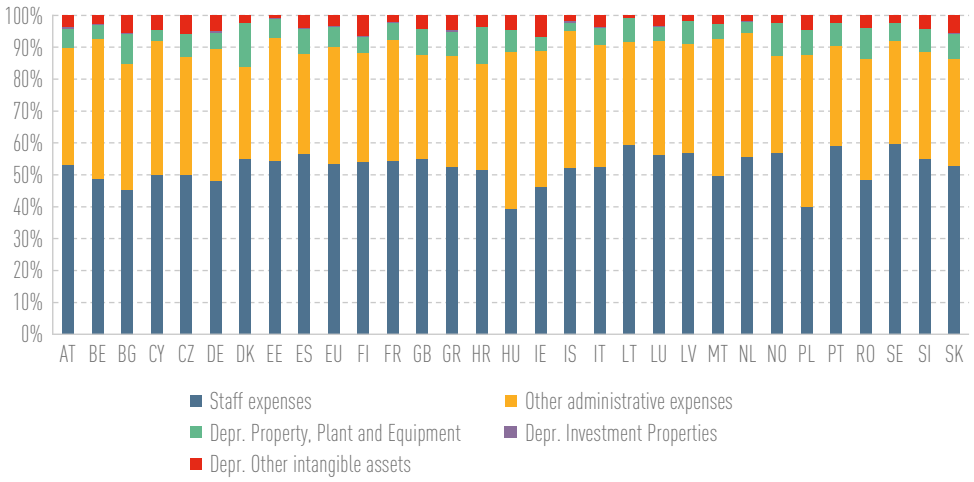


Figure 61: Breakdown of operating expenses as a percentage of total assets, by country – June 2019
Source: Supervisory reporting data

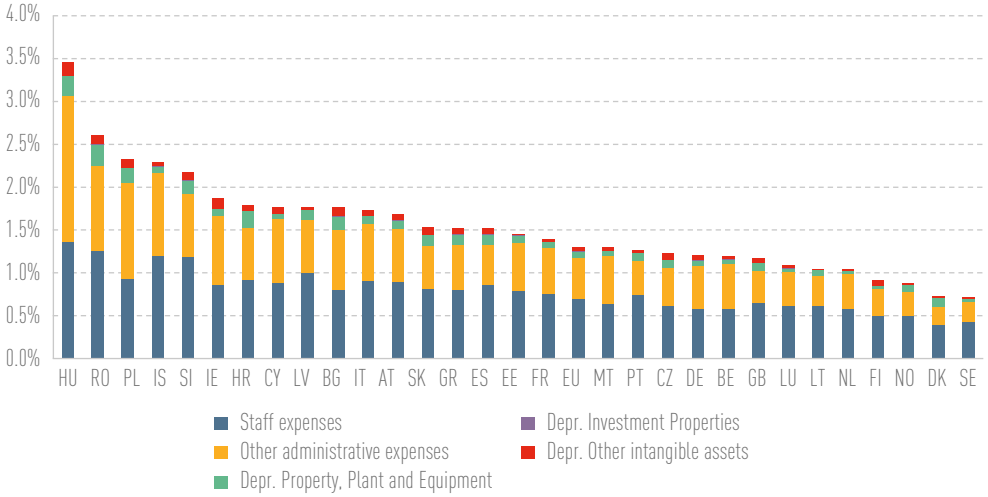
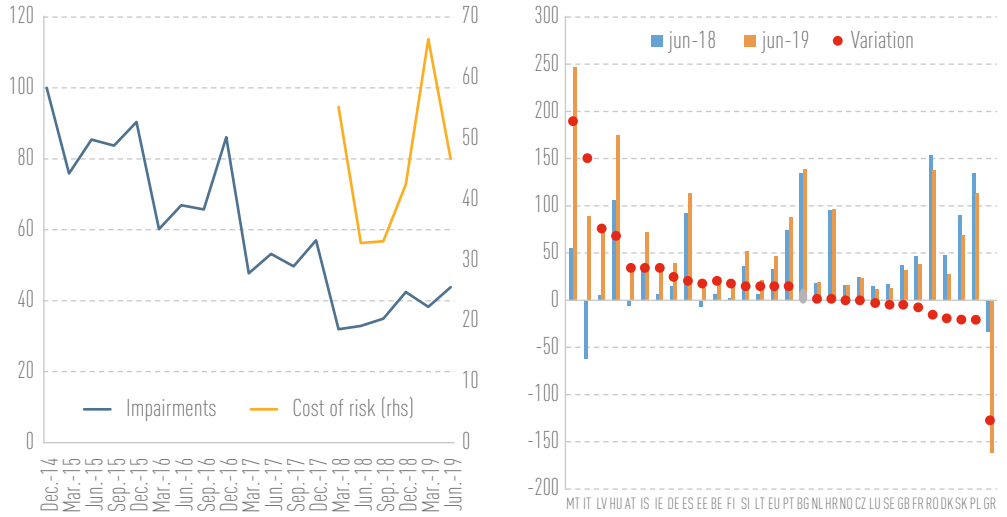


Figure 62: Evolution of impairments and cost of risk (left, in EUR bn and %) and cost of risk by country, in bps (June 2019; right)
Source: Supervisory reporting data



Bank- and country specific figures for the cost of risk might – besides other reasons – also be affected by M&A, loan portfolio and other transactions.

Against the backdrop of macroeconomic deterioration and recent regulatory measures that require a more timely provisioning of NPLs (see Chapters 1 and 2.2), impairments increased considerably in the 12 months to June 2019 (+ 33 %), putting an end to their former downward trend. Despite this rise, the cost of risk, albeit increasing (47 bps in June 2019 vs 33 bps in June 2018), has remained at relatively low levels (see further on asset quality Chapter 2.2).

Provisions, including those for pensions and other long-term employee benefits as well as those related to litigation and other legal issues, continued their downward trend. In the 12 months to June 2019, they decreased by nearly 20 %. This trend is in line with the recently decreasing direct losses related to operational risks (see Chapter 6).

5.3. Structural aspects

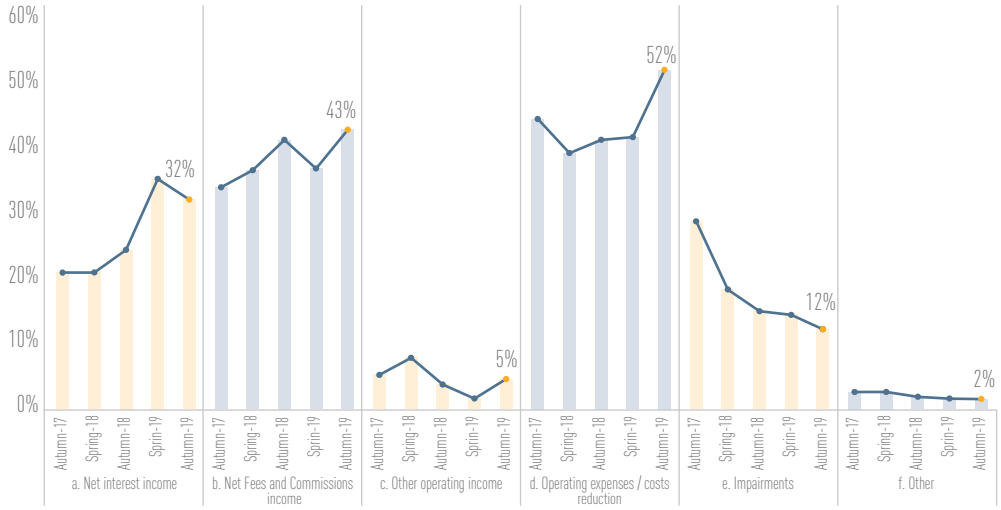
A rather bleak outlook for bank profitability

There are hardly any clear catalysts for an improvement in bank profitability that appear on the horizon. It tends to be rather the other way around. Even though low rates might be supportive when it is about the costs of market-based funding and new lending volumes, they still pose pressure on banks' NIMs (see Chapter 5.1 on banks' NIMs and Chapter 3 on the positive effects from low rates on market-based funding). As regards new lending volumes, they might still be under pressure if the threats to the macroeconomic environment materialise (see Chapter 1).

The decrease in central bank rates, such as the ECB deposit facility rate, though accompanied by deposit-tiering schemes, could add further pressure on banks to defend their NIMs. Competition from FinTech firms and other financial players might limit banks' income increases from rising fees. On the cost side, low rates could keep defaults low. However, if economic conditions further deteriorate, banks might struggle to keep their cost of risk low. These rather bleak prospects are also reflected in market valuations of listed banks (see analysis of PtB ratio in Chapter 1). Low valuations pose an additional threat for banks, as they can make capital increases difficult to achieve (see Chapter 4).

The latest RAQ results show banks' concerns about this challenging environment. Only 22 % of the responding banks expect an increase in their profits in the next 6 to 12 months. In order to address this problem, responding banks identified operating expenses as the main area to improve profitability and pointed at digitalisation and staff expenses as the main means (Figure 63).

Figure 63: Target areas to improve profitability
Source: EBA RAQ for banks

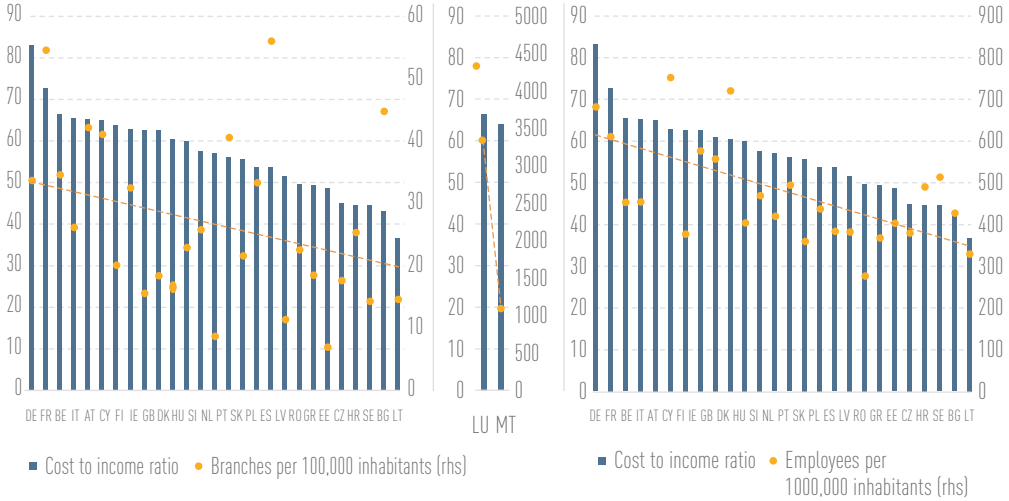


Investment in digitalisation entails large initial costs whereas the benefits might only be 'reaped' after some time (see also Chapter 6.2 on PSD2 and GDPR related costs, which might hardly result in key benefits for banks). Nonetheless, Nordic banks, which are examples of highly digitalised institutions, are already enjoying comparatively low operating expenses (Figure 61). Investment in digitalisation has also features of a fixed cost since it presumably does not vary much along with the NOI or the volume of assets (see textbox on Trends in FinTech in Chapter 5.1). These characteristics might provide an advantage to larger banks and even an argument in favour of bank consolidation.

Banks need to tackle their cost structure

Data shows that countries with lower CIRs tend to present lower branch density and less employees per capita (see Figure 64). This might suggest that banks could streamline their operating expenses by rationalising their branch networks, among other measures.

Figure 64: Cost-to-income ratio (CIR) vs branches (left) and vs employees (right) per 100,000 inhabitants – June 2019
Source: ECB, World Bank and supervisory reporting data, EBA calculations



Consolidation could play a role in this streamlining process, which might be addressed through different means. Through mergers and acquisitions (M&A), as one of these means, banks might be able to eliminate redundancies in operating expenses and to exploit existing economies of scale and synergies, for instance through investments in digitalisation. But M&A might also have negative effects such as loss of clients or expensive migration processes.

Consolidation might also take place through restructuring or liquidation of those banks unable to modernise their operating structure and to achieve a sustainable profitability level. By taking over some of the activities of exiting institutions, remaining banks could also attain a more suitable size to exploit economies of scale. However, if such exits of non-sustainable banks do not take place in an orderly fashion, they might pose a risk for the entire financial sector.

Consolidation could lead to the emergence of too-big-to-fail or too-complex-to-resolve institutions as well as to higher market concentration and increased pricing power for banks. However, the latter might be curtailed by intense competition from FinTech firms and other financial players. Additionally, bigger banks can be considered systemic and as such face for instance capital surcharges. Subsequently, the NOI per unit of equity could decrease. In the last RAQ less than 30 % of the responding banks consider M&A as a means to improve profitability. Banks usually point to the riskiness and complexity of the transactions as well as regulatory requirements as the main impediments for these operations.

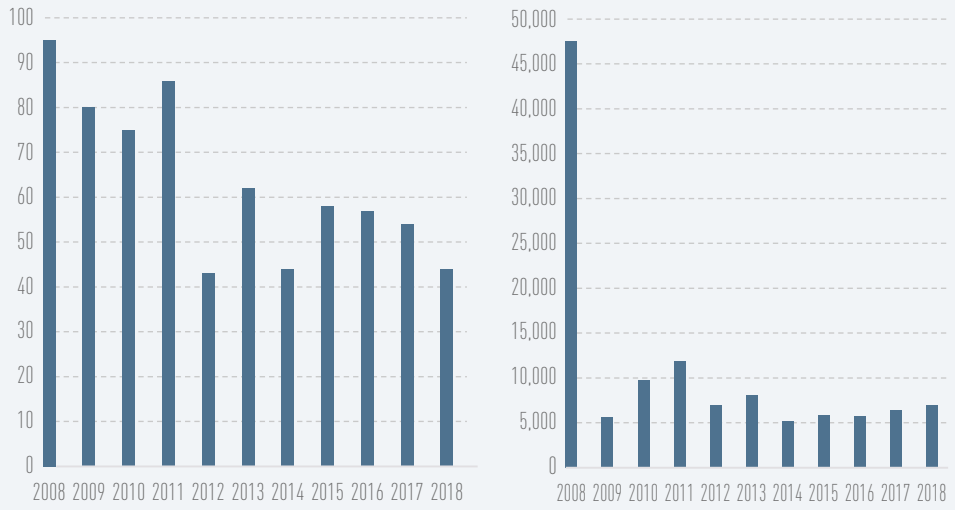
Consolidation might as such be focused on domestic mergers, or sales/acquisitions of business lines or segments for the moment, as cross-border M&A might pose additional challenges (see the separate textbox on M&A in this Chapter). Furthermore, instead of full legal entities M&A, over the past year, some transactions of business units and collaboration agreements have taken place. Some of these collaboration agreements entail the commercialisation of products through the network of their rivals in exchange for a fee, while some others are aimed at jointly developing technological solutions.

A challenging environment for M&A

Several factors are identified as benefits of banking consolidation: by growing larger, banks enjoy economies of scale and scope, scale up technology and innovation and offer consumers new and/or better priced financial services. From a policy perspective, the cross-border aspect of banking consolidation has become increasingly prominent in the ongoing debate on the deepening of the single market, because of its benefits in terms of financial integration and private risk sharing.

The post-crisis repair prompted an overhaul process of the EU prudential framework, establishing the Single Rulebook, common supervisory approaches and an EU-wide crisis-management framework. With the creation of the Banking Union, although still incomplete at the current juncture, institutional integration has gone even further among Euro area Member

Figure 65: Bank M&A in the Euro area: number of deals (left) and deal value (EUR m; right)
Source: S&P Market Intelligence, EBA calculations



States. Despite all this, data shows that M&A activity has been on a declining trend since the peak levels of 2007, particularly in terms of value but also in terms of number of transactions (Figure 65) ([50]).

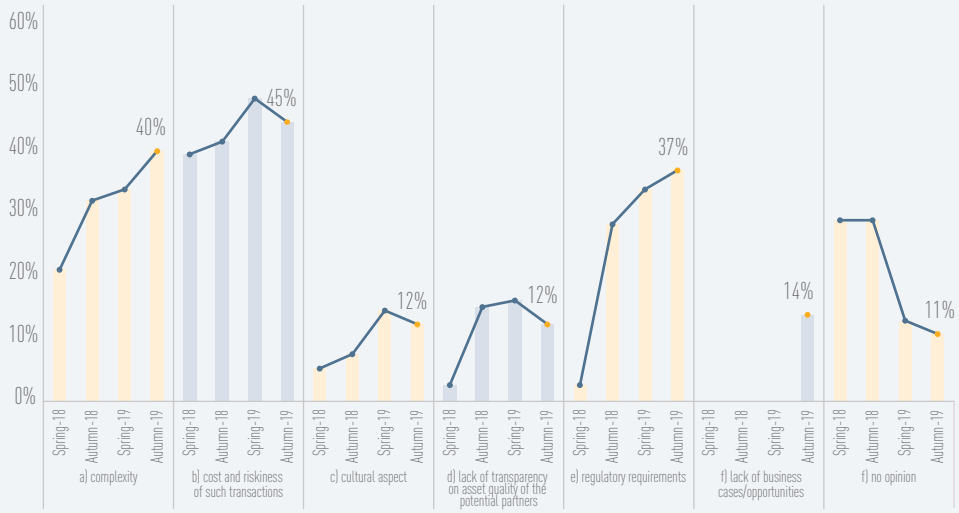
Pan-European banking groups should be subject to comparable and transparent regulatory and supervisory outcomes no matter where they operate. Regulation should not prevent them from running centralised (i.e. group-wide capital and liquidity management strategies) even across Member States. The question then arises as to whether the EU is delivering on its commitment to establish a single jurisdiction for banking, or whether specific regulatory, supervisory and institutional elements of the post-crisis repair act as potential obstacles to cross-border banking activity and thus cross-border consolidation in banking.

The specific bank questionnaire on potential obstacles to M&A (carried out by EBA staff in December 2018) seems to highlight that, while a lot of progress has been done, elements of regulatory complexity and ring-fencing persist in the treatment of cross-border banking activity, potentially holding back cross-border consolidation. The results of the latest RAQ also partly confirm this view.

Whereas the RAQ results show that key obstacles to banks' M&A are cost and riskiness of such transactions (45 %) as well as their complexity (48%), regulatory requirements have been on a sharp rise in recent years, now reaching 37 % (Figure 66). However, within those pointing to regulatory requirements, banks refer less to the non-application of national waivers on liquidity and capital requirements (22 %, 1 year ago 43 %), than other regulatory or supervisory requirements (78 %, 1 year ago 57 %). The latter include, for instance, differences in the application and setting of the O-SII buffers. Furthermore, in the current context, it is important to acknowledge the existing regulation, not as an obstacle to integration/consolidation, but as a way to address the concerns of host authorities about financial stability.

On the supervisory front, the most recent evidence provided by the EBA supervisory convergence reports ([51]) (while acknowledging that significant progress has been made over the last years) showed that a number of challenges still remain, primarily in the areas of methodologies for the capital adequacy assessments and in the determination of institution-specific additional own funds requirements. This is also confirmed by the evidence collected in the EBA staffs' specific bank questionnaire on potential obstacles to M&A, in which respondents highlighted that increased transparency in the definition and communication of Pillar 2 requirements would positively extend to cross-border banking consolidation planning.

Figure 66: Main obstacles to M&A according to EU banks' views
Source: EBA RAQ for banks



([50]) See also ECB, *Report on Financial Structures* (https://www.ecb.europa.eu/pub/pdf/other/reportonfinancialstructures201710.en.pdf).

([51]) See the EBA report[s] on supervisory convergence (https://eba.europa.eu/supervisory-convergence).

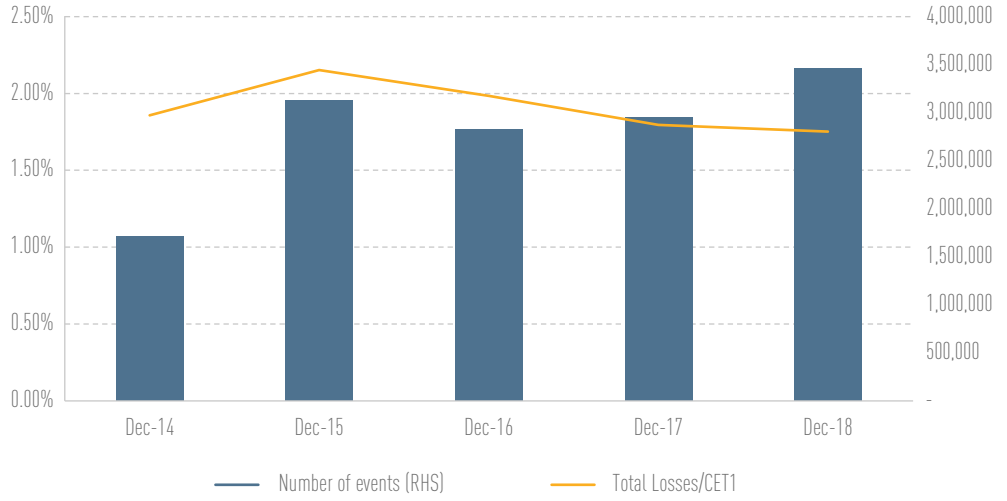
6. Operational resilience

6.1. Operational risks: general trends in losses and outlook

Data indicates a decline in losses related to operational risks since 2015. The amount of total losses from new events as a share of CET1 capital has declined since then from 2.15 % to 1.75 % in 2018 ([52]). Compared to 2017, this decline was mainly driven by a reduction in losses originating from clients, products and business practices. However, the latter still remained the key contributor to losses from operational risks (68 % as of year-end 2018, measured in absolute terms), followed by losses from execution, delivery and process management (21 %). In contrast to the volume of total losses the number of new loss events showed a slight upward trend in 2018 (Figure 67) ([53]).

These developments do not necessarily mean that operational risks are on a decline since they might not reflect the full picture. One reason is that they only reflect incurred losses and further losses related to these incidents might add to the already recognised ones in the years to come ([54]). In addition, some events might not lead to a directly linked loss but imply reputational damage, which may result in contracting revenues if customers leave the bank or new business stagnates, or the need to close certain segments or operations in selected countries. They might also result in indirect losses if investors ask for higher spreads for market-based funding, as they associate higher risks with respective banks. Furthermore such events might result in the need to invest in governance and information and communications technology (ICT) systems to avoid such incidents in future. Country by country data indicates that for several jurisdictions, which for instance faced major events related to anti money laundering (AML) incidents show relatively low loss amounts (Figure 68). Banks in these countries have as such faced major events, but resulting in (at least for the moment) comparatively low losses.

Figure 67: Total losses from events in operational risk as a share of CET1 and number of new events
Source: EBA Supervisory Reporting data



([52]) The analysis for this and the following chart captures yearly data.

([53]) This is also in line with the development of operational RWA, which slightly increased between 2017 and 2018 (+ 1.1 %). Also data shown in Chapter 4, comparing trends between June 2018 and June 2019, show an upward trend in operational RWA.

([54]) United Kingdom bank charges related to the mis-selling of payment protection insurance (PPI) products are one of many examples of this. PPI-related provisioning saw a spike in 2019, at the end of a deadline set by which complaints could be raised through customers, and many years after the issue had come up.

Figure 68: Total losses in operational risk (new events) as a share of CET1 – December 2018
Source: EBA Supervisory Reporting data

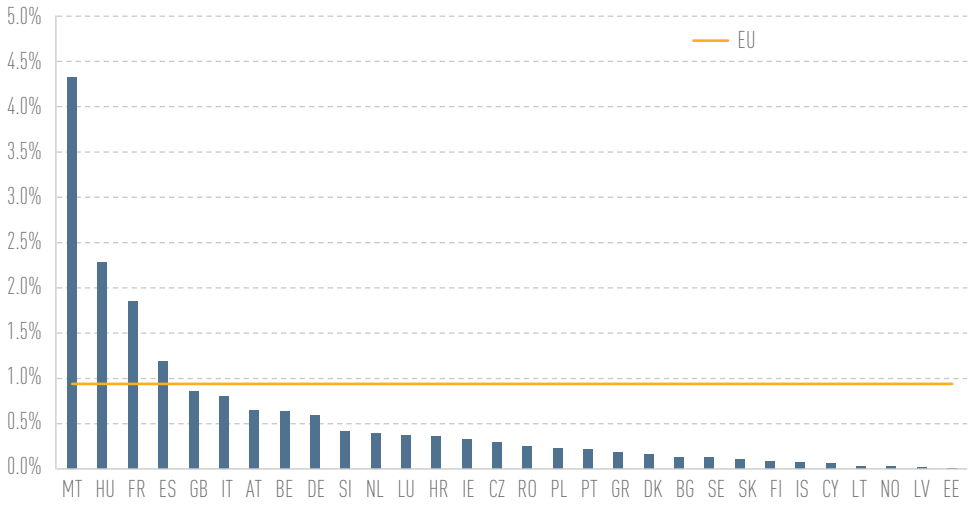
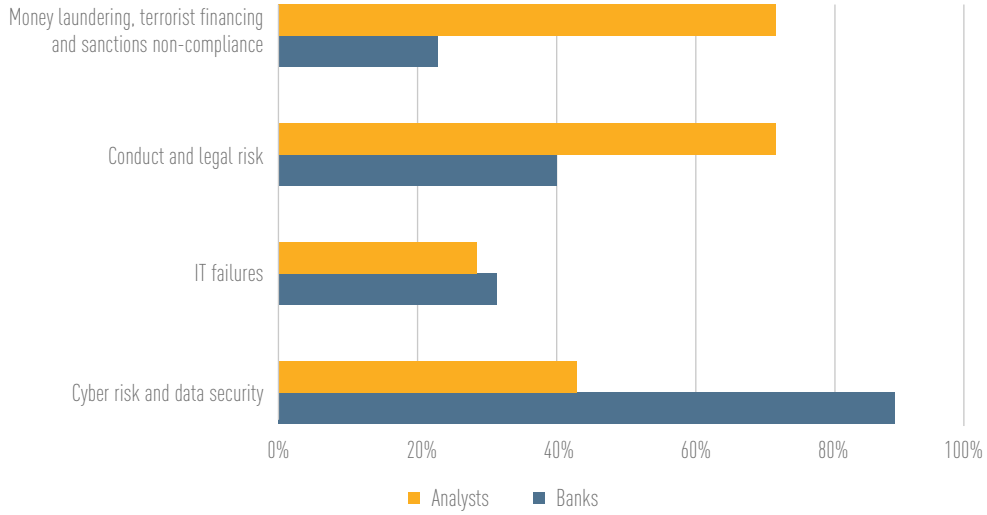


Figure 69: Operational risk decomposition as seen by banks and analysts
Source: EBA RAQ for analysts and banks



The relevance of operational risk is also acknowledged by banks and analysts in their responses to the RAQ. Over 50 % of the respondents from both groups expect an increase in operational risk. Yet, banks and analyst partially disagree on the main drivers for operational risk. Banks consider cyber risk (89 % agreement) and conduct and legal risks (40 %) as the main drivers. 70 % of market analysts identify conduct and legal risk, as well as money laundering (ML), terrorist financing (TF) and sanctions non-compliance as major drivers for operational risks (Figure 69). These responses might cast a light on what the main challenges are, with which banks will presumably have to deal with.

6.2. ICT-related risks

In a world of rapid technological developments, risks related to ICT represent a key challenge for banks. The complexity of ICT and security risks is increasing and frequency of ICT and security related incidents, including cyber incidents, is rising together with their potential significant adverse impact on banks' operational functioning. Furthermore, the competitive pressure from FinTech firms is pushing banks to adapt their business models in order to access new technologies. As a consequence, banks face an increased level of complexity in their ICT systems, which increases the likelihood of malfunctioning and errors leading to operational losses.

Banks often decide to outsource ICT activities to third-party providers. This can pose challenges related to third-party risk management as well as consumer data confidentiality and protection. Moreover, banks might face particular challenges due to the potential concentration to few third-party providers, which could possibly restrict their negotiating position, for instance in case they want to change contractual terms. A potential concentration on a limited number of providers could also pose a systemic risk especially when the provided services relate to institutions' critical or important functions. It could also increase the pricing power of the providers, which can have further negative impacts on banks.

In addition, the revisited payment service directive (PSD2) enables third-party payment services providers to access bank customers' payment accounts, for example through open application program interfaces (API). Banks have faced increasing ICT costs, not only to implement the system changes required to allow said account access, but also to implement the security requirements more generally stipulated in PSD2, such as the so-called two-factor authentication, and the data protection requirements set out in the EU General Data Protection Regulation (GDPR). The costs arising from these requirements will have noticeably cost implications for the next year or two.

Overall, the technological developments outlined, along with the significant value of customer data and the high level of interconnectedness, expose banks to potential cyberattacks. Market data implies that a typical bank faces on average 85 targeted cyberattacks every year, a third of which are successful ([55]). A cyberattack could endanger the provision of crucial banking services, destabilise the financial sector and lead to potentially systemic consequences. It is important that banks and their service providers adopt appropriate technologies and devote adequate resources to address the rising cyber threats, and their growing sophistication.

6.3. Money laundering and terrorist financing risks

Issues of failings and alleged failings of banks to comply with AML and counter terrorist financing (CTF) provisions have gained widespread public attention in the past 2 years. The number of AML/CTF failings has been high and the volumes of illicit and allegedly illicit transactions concerned were substantive. The determinants of recent AML/CTF incidents appear to include ineffective internal controls, weak governance, complex processes and high risk appetites.

Insufficient awareness and expertise as well as a lack of senior management preparedness to take responsibility for AMF/CTF-related risks could be observed at banks. AML/CFT cases involving banks have also highlighted the importance of effective co-operation between regulatory authorities and AML/CTF supervisory authorities, taking due account of the respective risks affecting banks under their supervision.

6.4. Legal and reputational risks

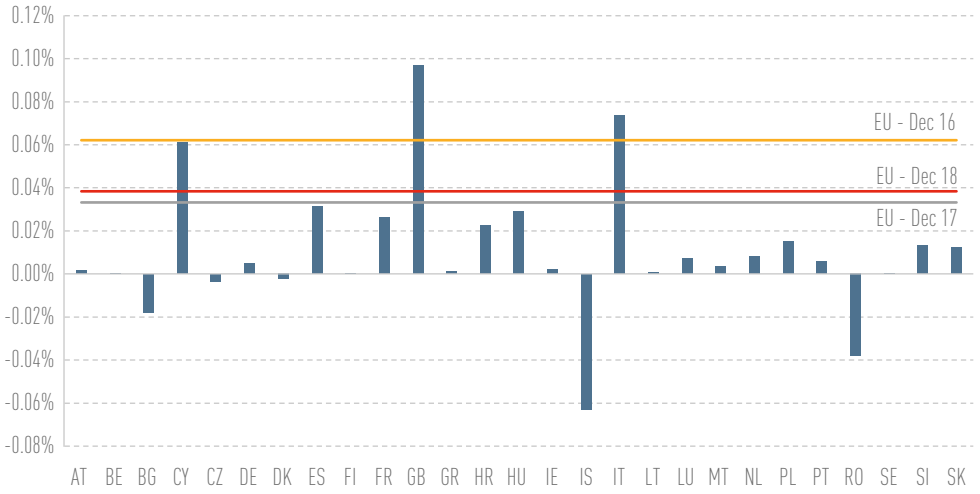
Legal and reputational risks are related to a wide range of bank activities, which go beyond the aforementioned ICT security breaches and the failure to comply with AML/CTF provisions. Additional reasons for concern are, for instance, redress for mis-selling of financial products, NPL-resolution measures, breach of financial and trade sanctions and similar.

Incurring costs related to misconduct and governance issues, including litigation, compensation and redress costs have, in many instances, been substantive and can put additional strain on already subdued profitability. In the RAQ, 29 % of the responding banks indicated that they had paid aggregate costs litigation and redress costs and similar payments of over EUR 1 bn since the financial year 2007/2008. Another 9 % had rendered over EUR 10 bn of such payments since 2007/2008.

Going forward, banks expect litigation and misconduct costs to remain at the current level or to increase over the next 6-12 months. Of banks responding to the RAQ, 63 % expect misconduct costs to remain at a constant level, while 23 % expect an increase. Consistently, data indicates that between December 2017 and December 2018, net changes in provisions due to pending legal issues and litigation (measured as a share to total assets) slightly increased from 3 bps to 4 bps (Figure 70).

([55]) Accenture, *High Performance Security Report* (https://www.accenture.com/us-en/insight-building-confidence-facing-cybersecurity-conundrum).

Figure 70: Net provisions for pending legal issues and tax litigation as a share of total assets by country (2018) and for the EU (2016-2018)
Source: EBA supervisory reporting data



7. Policy implications and measures

In search for yield, banks have significantly increased riskier lending, such as consumer, CRE and SME financing during recent years. The expansion in these segments has been more significant than for others. Also looking forward, banks plan to further grow their exposures in some of these areas, even though an increasing share of them expects a deterioration in asset quality for these portfolios. This also comes despite a bleaker economic outlook, and in spite of these already now being some of the segments with the highest NPL ratios. Amid such trends and outlook, banks need to ensure that there is no easing of credit standards, in particular on these segments. This needs close monitoring by supervisors ([56]).

Balance sheet cleaning up is slowing down. Although low rates can ease debt servicing by NFCs and households, deterioration in the macroeconomic environment could increase NPL inflows. Additionally, less-favourable economic conditions might decrease the value of NPLs collateral and guarantees as well as investor appetite for impaired assets. Banks that apply timely and stringent provisioning policies will be in a better position to reduce their impaired assets, as sufficient higher coverage ratios tend to lower the effect of NPL disposals on banks' profits and capital ([57]).

After a period of elevated spreads at the beginning of 2019, funding conditions have been favourable during the remainder of the year. Monetary policy has driven funding costs and spreads to historically low levels, hence, easing the issuance of MREL-eligible liabilities. Banks should take advantage of the current low interest rate environment to build up their MREL buffers. In particular, medium-sized and small banks required to hold MREL funding might aim to make use of the opportunities the benign funding-market sentiment is offering to issue loss-absorbing instruments to meet their MREL targets.

An increasing number of bank charges or plans to charge negative rates for NFCs and household deposits above certain thresholds. Such measures might challenge the traditional stable behaviour of depositors and, thus, the stability of banks' funding mix. It is paramount that banks keep a stable funding mix, in which deposits traditionally play a key role. Charging negative rates also needs to be further investigated related to its compliance with depositor protection and the applicability of the deposit guarantee schemes directive (DGSD) ([58]).

Although EU banks have LCR well above the regulatory minimum, some institutions show low LCR levels in significant foreign currencies. It is important that banks concerned carefully manage foreign currency positions in their funding profiles, including short-term liquidity positions. Also the avoidance of significant currency mismatches in banks' balance sheets is important to keep foreign exchange (FX) related risks limited. This is particularly relevant in an environment of persisting risks of suddenly increasing risk premiums, including uncertainties surrounding Brexit and potential trade wars. Supervisors need to track these developments ([59]).

Banks plan to grow their lending volumes and capital requirements are expected to rise. They should ensure that an increase in

([56]) The EBA is currently finalising the guidelines on loan origination and monitoring (https://eba.europa.eu/regulation-and-policy/credit-risk/guidelines-on-loan-origination-and-monitoring). They aim to ensure that banks have robust and prudent standards for credit risk taking, and the newly originated loans are of high credit quality.

([57]) Related to provisioning policy see also the amendment to the CRR as regards minimum loss coverage for non-performing exposures, and the single supervisory mechanism (SSM) *Guidance to banks on non-performing loans*, including respective addendum and its update (https://www.bankingsupervision.europa.eu/press/letterstobanks/shared/pdf/2019/ssm.supervisory_coverage_expectations_for_NPEs_201908.en.pdf).

([58]) See on the link between negative rates and the DGSD: EBA, Opinion of the European Banking Authority on the eligibility of deposits, coverage level and cooperation between deposit guarantee schemes', paragraph 202, https://eba.europa.eu/sites/default/documents/files/documents/10180/2622242/324e89ec-3523-4c5b-bd4f-e415367212bb/EBA%20Opinion%20on%20the%20eligibility%20of%20deposits%20coverage%20level%20and%20cooperation%20between%20DGSs.pdf?retry=1.

([59]) As announced in the EBA's first report on the monitoring of the LCR implementation in the EU (https://eba.europa.eu/eba-reports-on-the-monitoring-of-the-lcr-implementation-in-the-eu), the EBA is working on the implementation related to the LCR by significant currency.

RWA is similarly reflected in capital. Since low market valuations may make external capital increases challenging, other high-quality sources of capital, such as retained earnings and other reserves, should increase in line with RWA. Trends in capital ratios should continuously be monitored.

There is a broad dispersion of the application of capital buffers across the EU. Whereas for the biggest parts of the capital buffers, like the CCoB and G-SII buffer, the differences can be explained by regulatory requirements, the differences in the application and setting of the O-SII buffer might need further harmonisation, also to ensure a level-playing field in the Single Market. Current differences in the application and setting of the O-SII buffer might also pose a hurdle for cross-border M&A.

There are hardly any catalysers on the horizon that would support profitability. A careful management of operating expenses is essential to weather a challenging environment for profitability. Banks need to focus on their operating expenses, including, for instance, a potential reshuffling of their branch networks, in order to avoid further profitability erosion. Measures to tackle the profitability and cost related challenges might include M&A transactions as well as orderly exits of banks which do not reach sustainable profitability levels. Nonetheless, consolidation should not result in undue risk taking or in excessive concentration on certain activities.

Improvement in profitability is important to attract investor interest, but also to ensure that banks can manage any potential need for capital increases by themselves, without raising external capital. Amid low PtB multiples, which are widely below 1, the latter might be difficult to conduct.

The sophistication of digitalised banking and the competitive pressure from FinTech firms increase the likelihood of malfunctioning and errors leading to operational losses. As banks often outsource ICT activities, it is essential that both banks and third-party providers count on adequate means to deal with cyber risks. Adequate resources should be devoted to address ICT-related risks ([60]). A too-strong centralisation of outsourcing services among only a few providers needs to avoided, so that they do not pose any risk to banks and the financial system.

AML/CTF failings have been numerous and volumes of illicit transactions substantial. Banks need to properly identify and address their related operational weaknesses. They need to strengthen their control and governance frameworks in order to fully comply with all relevant legal and regulatory requirements concerning AML/CFT and sanctions. Prudential supervisors should ensure AML/CTF-related risks are appropriately addressed, including the consideration of these risks in the SREP and an effective exchange of information with AML/CTF supervisors ([61]).

([60]) The EBA is currently finalising the guidelines on the ICT and security risk management (https://eba.europa.eu/regulation-and-policy/internal-governance/guidelines-on-ict-and-security-risk-management). They aim to set a baseline on how banks should manage the ICT and security risks, which they are exposed to.

([61]) See also EBA, Opinion on communications to supervised entities regarding money laundering and terrorist financing risks in prudential supervision, 24 July 2019 (https://eba.europa.eu/documents/10180/2622242/Opinion+on+Communication+of+ML+TF+risks+to+supervised+entities.pdf) as well as the Joint Opinion of the European Supervisory Authorities on the risks of money laundering and terrorist financing affecting the European Union's financial sector (https://eba.europa.eu/documents/10180/2622242/Joint+Opinion+on+the+risks+on+ML+and+TF+affecting+the+EU %27s+financial+sector.pdf).

Annex I: Samples of banks

List of banks that made up the sample population for the risk indicators, transparency exercise and RAQ ([62]):

Name	Country	Risk indicators	Transparency exercise				RAQ
			2018 Q3	2018 Q4	2019 Q1	2019 Q2	
BAWAG Group AG	Austria	X	X	X	X	X	X
Erste Group Bank AG	Austria	X	X	X	X	X	X
Raiffeisen Bank International AG	Austria	X	X	X	X	X	X
Raiffeisenbankengruppe OÖ Verbund eGen	Austria	X	X	X	X	X	
Sberbank Europe AG	Austria	X	X	X	X	X	
UniCredit Bank Austria AG	Austria	X					
Volksbanken Verbund	Austria	X	X	X	X	X	
AXA Bank Belgium SA	Belgium	X	X	X	X	X	
Bank of New York Mellon	Belgium	X	X	X	X	X	
Belfius Banque SA	Belgium	X	X	X	X	X	X
BNP Paribas Fortis SA	Belgium	X					
Dexia SA	Belgium	X	X	X	X	X	
ING België / Belgique	Belgium	X					
Investeringsmaatschappij Argenta NV	Belgium	X	X	X	X	X	
KBC Group NV	Belgium	X	X	X	X	X	X
DSK Bank Bulgaria	Bulgaria	X					
First Investment Bank	Bulgaria	X	X	X	X	X	X
UniCredit Bulbank Bulgaria	Bulgaria	X					
United Bulgarian Bank- UBB	Bulgaria	X					
Erste & Steiermärkische Bank d.d.	Croatia	X					
Privredna Banka Zagreb d.d.	Croatia	X					
Zagrebacka Banka d.d.	Croatia	X					
Bank of Cyprus Holdings Public Limited Company	Cyprus	X	X	X	X	X	X
Hellenic Bank Public Company Ltd	Cyprus	X	X	X	X	X	X
RCB Bank Ltd	Cyprus	X	X	X	X	X	
Česká spořitelna, a.s.	Czech Republic	X					
Československá obchodní banka, a.s.	Czech Republic	X					
Komerční banka, a.s.	Czech Republic	X					
Danske Bank A/S	Denmark	X	X	X	X	X	X
Jyske Bank A/S	Denmark	X	X	X	X	X	
Nykredit Realkredit A/S	Denmark	X	X	X	X	X	X
Sydbank A/S	Denmark	X	X	X	X	X	

([62]) The sample of banks is regularly adjusted to take into account bank-specific developments; for example, banks that ceased activity or underwent a significant restructuring process are not considered further. Not all banks are subject to all reporting requirements (e.g. for finrep or funding-plan reporting). The list of banks that are the basis for the risk indicators refers to the sample of banks used to calculate the Q2 2019 indicators. For lists of reporting institutions on a yearly basis, please see (https://www.eba.europa.eu/risk-analysis-and-data). The banks marked (*) are included in the transparency exercise in the 'other banks' bucket.

Name	Country	Risk indicators	Transparency exercise				RAQ
			2018 Q3	2018 Q4	2019 Q1	2019 Q2	
AS LHV Group	Estonia	X	X	X	X	X	X
Luminor Bank AS	Estonia	X					
SEB Pank AS	Estonia	X					
Swedbank AS	Estonia	X					
Kuntarahoitus Oyj	Finland	X	X	X	X	X	
Nordea Bank Abp	Finland	X	X	X	X	X	X
OP Osuuskunta	Finland	X	X	X	X	X	X
Säästöpankkiliitto osk	Finland	X	X	X	X	X	
Banque Centrale de Compensation (LCH Clearnet)	France	X	X	X	X	X	
BNP Paribas SA	France	X	X	X	X	X	X
Bpifrance (Banque Publique d'Investissement)	France	X	X	X	X	X	
Crédit Mutuel Group	France	X	X	X	X	X	X
CRH (Caisse de Refinancement de l'Habitat)	France	X	X	X	X	X	
Groupe BPCE	France	X	X	X	X	X	X
Groupe Credit Agricole	France	X	X	X	X	X	X
HSBC France	France	X					
La Banque Postale	France	X	X	X	X	X	X
RCI banque (Renault Crédit Industriel)	France	X	X	X	X	X	
SFIL (Société de Financement Local)	France	X	X	X	X	X	
Société Générale SA	France	X	X	X	X	X	X
Aareal Bank AG	Germany	X	X	X	X	X	
Bayerische Landesbank	Germany	X	X	X	X	X	X
Commerzbank AG	Germany	X	X	X	X	X	X
DekaBank Deutsche Girozentrale	Germany	X	X	X	X	X	
Deutsche Apotheker- und Ärztebank eG	Germany	X	X	X	X	X	
Deutsche Bank AG	Germany	X	X	X	X	X	X
Deutsche Pfandbriefbank AG	Germany	X	X	X	X	X	
Deutsche Zentral-Genossenschaftsbank AG	Germany	X	X	X	X	X	X
Erwerbsgesellschaft der S-Finanzgruppe mbH & Co. KG	Germany	X	X	X	X	X	
Hamburg Commercial Bank	Germany	X	X	X	X	X	
HASPA Finanzholding AG	Germany	X	X	X	X	X	
Landesbank Baden-Württemberg	Germany	X	X	X	X	X	X
Landesbank Hessen-Thüringen Girozentrale	Germany	X	X	X	X	X	X
Landeskreditbank Baden-Württemberg–Förderbank	Germany	X	X*	X*	X*		
Landwirtschaftliche Rentenbank	Germany	X	X*	X*	X*		
Münchener Hypothekenbank eG	Germany	X	X	X	X	X	
Norddeutsche Landesbank Girozentrale	Germany	X	X	X	X	X	X
NRW.Bank	Germany	X	X*	X*	X*		
State Street Europe Holdings	Germany	X	X	X	X	X	
Volkswagen Bank Gesellschaft mit beschränkter Haftung	Germany	X	X	X	X	X	
Alpha Bank SA	Greece	X	X	X	X	X	X
Eurobank Ergasias SA	Greece	X	X	X	X	X	X
National Bank of Greece SA	Greece	X	X	X	X	X	X
Piraeus Bank SA	Greece	X	X	X	X	X	X

Name	Country	Risk indicators	Transparency exercise				RAQ
			2018 Q3	2018 Q4	2019 Q1	2019 Q2	
Kereskedelmi és Hitelbank Zrt.	Hungary	X					
OTP Bank Nyrt.	Hungary	X	X	X	X	X	X
UniCredit Bank Hungary Zrt.	Hungary	X					
Arion banki hf	Iceland	X	X	X	X	X	
Íslandsbanki hf.	Iceland	X	X	X	X	X	
Landsbankinn	Iceland	X	X	X	X	X	X
AIB Group plc	Ireland	X	X	X	X	X	X
Bank of America Merrill Lynch International Designated Activity Company	Ireland	X			X	X	
Bank of Ireland Group plc	Ireland	X	X	X	X	X	X
Barclays Bank Ireland Plc	Ireland	X					
Citibank Holdings Ireland Limited	Ireland	X	X	X	X	X	
DePfa Bank plc	Ireland		X*	X*			
Ulster Bank Ireland Limited	Ireland	X					
Banca Carige S.p.A. – Cassa di Risparmio di Genova e Imperia	Italy		X*	X*			
Banca Monte dei Paschi di Siena SpA	Italy	X	X	X	X	X	X
Banca popolare dell'Emilia Romagna SC	Italy	X	X	X	X	X	
Banca Popolare di Sondrio SCpA	Italy	X	X	X	X	X	
Banco BPM SpA	Italy	X	X	X	X	X	X
Cassa Centrale Banca - Credito Cooperativo Italiano S.p.A	Italy	X			X	X	
Credito Emiliano Holding SpA	Italy	X	X	X	X	X	
Iccrea Banca Spa Istituto Centrale del Credito Cooperativo	Italy	X	X	X	X	X	
Intesa Sanpaolo SpA	Italy	X	X	X	X	X	X
Mediobanca - Banca di Credito Finanziario SpA	Italy	X	X	X	X	X	
UniCredit SpA	Italy	X	X	X	X	X	X
Unione di Banche Italiane SCpA	Italy	X	X	X	X	X	X
AS Citadele banka	Latvia	X			X	X	
AS SEB banka	Latvia	X					
Swedbank AS	Latvia	X					
AB SEB bankas	Lithuania	X					
Akcinė bendrovė Šiaulių bankas	Lithuania	X		X	X	X	
Swedbank AB	Lithuania	X					
Banque et Caisse d'Epargne de l'Etat, Luxembourg	Luxembourg	X	X	X	X	X	X
Banque Internationale à Luxembourg	Luxembourg	X		X	X	X	
BGL BNP Paribas	Luxembourg	X					
Deutsche Bank Luxembourg S.A.	Luxembourg	X					
J.P. Morgan Bank Luxembourg S.A.	Luxembourg	X	X	X	X	X	
Precision Capital S.A.	Luxembourg	X	X	X	X	X	
RBC Investor Services Bank S.A.	Luxembourg	X	X	X	X	X	
Société Générale Bank & Trust	Luxembourg	X					
State Street Bank Luxembourg S.C.A.	Luxembourg	X	X	X	X	X	
Bank of Valletta Plc	Malta	X	X	X	X	X	X
Commbank Europe Ltd	Malta	X	X	X	X	X	
HSBC Bank Malta Plc	Malta	X					

Name	Country	Risk indicators	Transparency exercise				RAQ
			2018 Q3	2018 Q4	2019 Q1	2019 Q2	
MDB Group Limited	Malta	X	X	X	X	X	
ABN AMRO Group N.V.	Netherlands	X	X	X	X	X	X
BNG Bank N.V.	Netherlands	X	X*	X	X*	X	
Coöperatieve Rabobank U.A.	Netherlands	X	X*	X	X*	X	X
de Volksbank N.V.	Netherlands	X	X*	X	X*	X	
ING Groep N.V.	Netherlands	X	X	X	X	X	X
Nederlandse Waterschapsbank N.V.	Netherlands	X	X*	X	X*	X	
DNB BANK ASA	Norway	X	X	X	X	X	X
SPAREBANK 1 SMN	Norway	X	X	X	X	X	
SPAREBANK 1 SR-BANK ASA	Norway	X	X	X	X	X	X
Bank Polska Kasa Opieki SA	Poland	X	X	X	X	X	X
Powszechna Kasa Oszczędności Bank Polski SA	Poland	X	X	X	X	X	X
Santander Bank Polska SA	Poland	X					
Banco BPI SA	Portugal	X					
Banco Comercial Português SA	Portugal	X	X	X	X	X	X
Caixa Central de Crédito Agrícola Mútuo, CRL	Portugal	X	X	X	X	X	
Caixa Económica Montepio Geral	Portugal	X	X	X	X	X	
Caixa Geral de Depósitos SA	Portugal	X	X	X	X	X	X
LSF Nani Investments S.à.r.l.	Portugal	X	X	X	X	X	
Santander Totta – SGPS SA	Portugal	X					
Banca Comerciala Romana SA	Romania	X					
Banca Transilvania	Romania	X	X	X	X	X	X
BRD-Groupe Société Générale SA	Romania	X					
Slovenská sporiteľňa, a.s.	Slovakia	X					
Tatra banka, a.s.	Slovakia	X					
Všeobecná úverová banka, a.s.	Slovakia	X					
Abanka d.d.	Slovenia	X	X	X	X	X	
Biser Topco S.à.r.l.	Slovenia	X	X	X	X	X	
Nova Ljubljanska Banka d.d. Ljubljana	Slovenia	X	X	X	X	X	X
ABANCA Holding Financiero, S.A.	Spain	X	X	X	X	X	
Banco Bilbao Vizcaya Argentaria, S.A.	Spain	X	X	X	X	X	X
Banco de Crédito Social Cooperativo, S.A.	Spain	X	X	X	X	X	
Banco de Sabadell, S.A.	Spain	X	X	X	X	X	X
Banco Santander, S.A.	Spain	X	X	X	X	X	X
Bankinter, S.A.	Spain	X	X	X	X	X	X
BFA Tenedora de Acciones, S.A.	Spain	X	X	X	X	X	
CaixaBank S.A.	Spain	X	X	X	X	X	X
Ibercaja Banco, S.A.	Spain	X	X	X	X	X	
Kutxabank, S.A.	Spain	X	X	X	X	X	
Liberbank, S.A.	Spain	X	X	X	X	X	
Unicaja Banco, S.A.	Spain	X	X	X	X	X	
AB Svensk Exportkredit	Sweden	X	X*	X*	X*	X*	
Kommuninvest - group	Sweden	X	X	X	X	X	
Länsförsäkringar Bank AB - group	Sweden	X	X	X	X	X	

Name	Country	Risk indicators	Transparency exercise				RAQ
			2018 Q3	2018 Q4	2019 Q1	2019 Q2	
SBAB Bank AB - group	Sweden	X	X	X	X	X	
Skandinaviska Enskilda Banken - group	Sweden	X	X	X	X	X	X
Svenska Handelsbanken - group	Sweden	X	X	X	X	X	X
Swedbank - group	Sweden	X	X	X	X	X	X
Barclays Plc	United Kingdom	X	X	X	X	X	X
Citigroup Global Markets Europe Limited	United Kingdom	X	X*	X*	X*	X*	
Clydesdale Bank plc	United Kingdom	X	X*	X*	X*	X*	
Coventry Building Society	United Kingdom	X	X*	X*	X*	X*	
Credit Suisse International	United Kingdom	X	X*				
Credit Suisse Investments (UK)	United Kingdom	X	X*	X*	X*	X*	
Goldman Sachs Group UK Limited	United Kingdom	X	X*	X*	X*	X*	
HSBC Holdings Plc	United Kingdom	X	X	X	X	X	X
J P Morgan Capital Holdings Limited	United Kingdom	X	X*	X*	X*	X*	
Lloyds Banking Group Plc	United Kingdom	X	X	X	X	X	X
Merrill Lynch UK Holdings Ltd	United Kingdom	X	X*	X*	X*	X*	
Mitsubishi UFJ Securities International PLC	United Kingdom	X	X*	X*	X*	X*	
Mizuho International Plc	United Kingdom	X	X*	X*	X*	X*	
Morgan Stanley International Ltd	United Kingdom	X	X*	X*	X*	X*	
Nationwide Building Society	United Kingdom	X	X	X	X	X	
Nomura Europe Holdings PLC	United Kingdom	X	X*	X*	X*	X*	
RBC Europe Limited	United Kingdom	X	X*	X*	X*	X*	
Standard Chartered Plc	United Kingdom	X	X	X	X	X	X
Sumitomo Mitsui Banking Corporation Europe Limited	United Kingdom	X			X*	X*	
The Co-operative Bank Plc	United Kingdom	X	X*	X*	X*	X*	
The Royal Bank of Scotland Group Public Limited Company	United Kingdom	X	X	X	X	X	X
UBS Limited	United Kingdom	X	X*	X*			
Virgin Money Plc	United Kingdom	X	X*				
Yorkshire Building Society	United Kingdom	X	X*	X*	X*	X*	

Annex II: Descriptive statistics from the EBA key risk indicators

The data shows the trend in risk indictors and is based on the sample of banks, which is regularly adjusted to take into account bank-specific developments; for example, banks that ceased activity or underwent a significant restructuring process are not further considered.

	KRI	Descriptive Statistics	Dec-14	Mar-15	Jun-15	Sept-15	Dec-15	Mar-16	Jun-16	Sept-16	Dec-16	Mar-17	Jun-17	Sept-17	Dec-17	Mar-18	Jun-18	Sept-18	Dec-18	Mar-19	Jun-19
Solvency	1 - Tier 1 capital ratio	Weighted average	13,5%	13,4%	13,9%	14,1%	14,7%	14,5%	14,8%	15,2%	15,5%	15,4%	15,7%	16,0%	16,3%	16,0%	16,0%	16,3%	16,3%	16,2%	16,2%
		First quartile	11,7%	11,6%	12,0%	12,1%	13,0%	12,8%	13,0%	13,0%	13,0%	13,3%	13,6%	13,9%	14,3%	14,1%	14,1%	13,9%	14,4%	14,5%	14,6%
		Median	13,5%	13,6%	13,8%	14,1%	14,9%	14,7%	15,0%	15,2%	15,9%	15,8%	16,2%	16,5%	16,7%	16,4%	16,7%	16,9%	16,7%	16,6%	16,5%
		Third quartile	16,2%	16,2%	16,8%	17,6%	18,5%	18,0%	18,3%	18,9%	19,9%	19,2%	19,6%	19,8%	21,1%	21,3%	21,7%	21,7%	20,3%	20,1%	19,7%
	2 - Total capital ratio	Weighted average	16,2%	16,1%	16,7%	17,0%	17,7%	17,4%	17,7%	18,3%	18,5%	18,4%	18,6%	18,9%	19,1%	18,8%	18,8%	19,0%	19,0%	18,9%	18,9%
		First quartile	13,8%	13,7%	14,2%	14,4%	14,8%	14,9%	15,0%	15,1%	15,2%	15,3%	16,0%	15,9%	16,3%	16,0%	16,3%	16,3%	16,2%	16,2%	16,4%
		Median	16,3%	15,8%	16,6%	16,8%	17,2%	17,2%	17,3%	17,9%	18,5%	18,1%	18,3%	18,3%	18,7%	19,0%	19,0%	19,2%	19,1%	19,0%	19,0%
		Third quartile	19,4%	19,5%	20,3%	21,7%	22,8%	22,3%	22,6%	22,5%	23,5%	22,7%	23,9%	23,2%	23,9%	23,6%	23,2%	23,1%	22,4%	21,9%	21,8%
	3 - CET1 ratio	Weighted average	12,5%	12,4%	12,8%	13,0%	13,5%	13,4%	13,6%	14,0%	14,2%	14,1%	14,3%	14,6%	14,9%	14,5%	14,5%	14,7%	14,7%	14,6%	14,6%
		First quartile	11,2%	11,4%	11,6%	11,7%	12,3%	12,4%	12,3%	12,5%	12,5%	12,5%	13,0%	13,1%	13,5%	13,3%	13,5%	13,3%	13,6%	13,5%	13,9%
		Median	12,8%	13,0%	13,1%	13,4%	14,0%	14,2%	14,3%	14,5%	14,7%	14,6%	15,0%	15,2%	15,8%	15,5%	15,7%	15,9%	15,7%	15,6%	15,5%
		Third quartile	15,5%	15,2%	15,9%	17,2%	17,0%	17,3%	17,5%	17,7%	18,8%	18,8%	19,1%	19,0%	20,1%	20,1%	21,0%	20,8%	20,3%	19,2%	19,4%
	4 - CET1 ratio (fully loaded)	Weighted average	11,5%	11,7%	12,1%	12,3%	12,9%	12,9%	13,1%	13,5%	13,7%	13,8%	14,0%	14,3%	14,6%	14,3%	14,3%	14,5%	14,5%	14,4%	14,4%
		First quartile	10,5%	10,6%	10,6%	11,1%	11,7%	11,7%	11,9%	12,0%	12,0%	12,2%	12,5%	12,7%	13,3%	12,9%	12,8%	12,8%	12,8%	12,9%	13,2%
		Median	12,1%	12,3%	12,4%	12,7%	13,6%	13,9%	13,8%	14,2%	14,6%	14,5%	14,7%	14,8%	15,5%	15,2%	15,5%	15,5%	15,4%	15,2%	15,2%
		Third quartile	15,1%	15,2%	15,2%	16,1%	16,9%	17,1%	17,6%	17,9%	18,7%	18,6%	19,1%	19,0%	20,1%	20,1%	21,0%	20,8%	20,1%	18,8%	18,9%
	5 - Leverage Ratio	Weighted average								5,3%	5,5%	5,3%	5,3%	5,4%	5,6%	5,3%	5,3%	5,3%	5,5%	5,4%	5,4%
		First quartile								4,4%	4,6%	4,4%	4,4%	4,5%	4,8%	4,6%	4,7%	4,7%	4,9%	4,7%	4,6%
		Median								5,8%	5,7%	5,5%	5,7%	5,6%	5,9%	5,8%	6,0%	5,9%	6,0%	6,0%	6,0%
		Third quartile								7,2%	7,5%	7,3%	7,6%	7,7%	8,1%	8,1%	7,8%	7,8%	8,4%	8,2%	8,4%

	KRI	Descriptive Statistics	Dec-14	Mar-15	Jun-15	Sept-15	Dec-15	Mar-16	Jun-16	Sept-16	Dec-16	Mar-17	Jun-17	Sept-17	Dec-17	Mar-18	Jun-18	Sept-18	Dec-18	Mar-19	Jun-19
Solvency	6 - Leverage Ratio (fully phased-in definition of Tier 1)	Weighted average								5,0%	5,1%	5,0%	5,1%	5,2%	5,4%	5,1%	5,1%	5,1%	5,3%	5,2%	5,2%
		First quartile								4,1%	4,3%	4,3%	4,3%	4,4%	4,6%	4,5%	4,5%	4,5%	4,7%	4,6%	4,6%
		Median								5,4%	5,4%	5,2%	5,4%	5,5%	5,7%	5,5%	5,5%	5,6%	5,5%	5,7%	5,8%
		Third quartile								7,2%	7,3%	7,1%	7,4%	7,5%	7,9%	7,7%	7,6%	7,3%	7,8%	7,9%	8,1%
Credit Risk and Asset Quality	7 - Ratio of non-performing loans and advances (NPL ratio)	Weighted average	6,5%	6,2%	6,0%	5,9%	5,7%	5,6%	5,4%	5,3%	5,1%	4,8%	4,4%	4,2%	4,1%	3,8%	3,6%	3,4%	3,2%	3,1%	3,0%
		First quartile	2,1%	2,1%	2,2%	2,2%	2,2%	1,9%	1,9%	1,8%	1,6%	1,5%	1,4%	1,4%	1,3%	1,2%	1,2%	1,2%	1,2%	1,2%	1,2%
		Median	5,5%	5,5%	5,8%	5,5%	5,0%	4,9%	4,6%	4,6%	4,1%	3,5%	3,4%	3,4%	3,0%	2,9%	2,7%	2,6%	2,7%	2,7%	2,6%
		Third quartile	14,9%	15,4%	14,4%	14,5%	14,8%	14,2%	13,6%	13,1%	13,1%	10,0%	9,0%	8,7%	7,8%	7,4%	6,9%	6,5%	5,7%	5,7%	5,2%
	8 - Coverage ratio of non-performing loans and advances	Weighted average	43,4%	43,0%	43,6%	43,6%	43,7%	43,7%	43,9%	44,3%	44,8%	45,2%	45,0%	44,7%	44,6%	46,7%	46,0%	45,7%	45,0%	45,1%	44,9%
		First quartile	31,8%	31,2%	32,1%	32,3%	31,3%	31,2%	31,8%	31,7%	31,0%	30,6%	28,6%	28,2%	26,9%	28,5%	26,0%	26,0%	27,1%	30,0%	30,0%
		Median	41,1%	41,7%	40,9%	41,7%	40,3%	39,5%	40,6%	40,9%	40,6%	38,9%	39,9%	40,1%	40,4%	41,6%	38,9%	38,5%	39,6%	39,9%	40,0%
		Third quartile	48,2%	47,2%	47,5%	48,3%	47,5%	47,6%	47,9%	47,5%	48,6%	48,2%	48,9%	49,0%	48,7%	50,3%	49,7%	49,5%	48,3%	51,4%	51,0%
	9 - Forbearance ratio for loans and advances	Weighted average	3,9%	3,8%	3,7%	3,6%	3,5%	3,5%	3,4%	3,3%	3,1%	3,0%	2,8%	2,7%	2,6%	2,4%	2,3%	2,2%	2,1%	2,0%	1,9%
		First quartile	1,2%	1,2%	1,2%	1,2%	1,2%	1,1%	1,1%	1,2%	1,3%	1,1%	1,0%	1,0%	0,9%	0,7%	0,7%	0,7%	0,7%	0,7%	0,7%
		Median	3,3%	3,3%	3,4%	3,2%	2,9%	2,8%	2,9%	2,8%	2,7%	2,5%	2,4%	2,3%	2,3%	2,1%	2,1%	1,9%	1,8%	1,8%	1,8%
		Third quartile	8,9%	9,3%	8,7%	8,8%	8,9%	9,3%	8,9%	9,1%	8,5%	8,3%	7,3%	7,0%	5,9%	5,2%	4,8%	4,5%	4,3%	4,4%	3,9%
	10 - Ratio of non-performing exposures (NPE ratio)	Weighted average	5,5%	5,3%	5,1%	5,0%	4,9%	4,8%	4,7%	4,6%	4,4%	4,2%	3,9%	3,7%	3,6%	3,4%	3,2%	3,0%	2,8%	2,7%	2,6%
		First quartile	2,0%	1,9%	1,9%	1,8%	1,8%	1,7%	1,6%	1,6%	1,4%	1,4%	1,3%	1,2%	1,2%	1,1%	1,1%	1,0%	1,0%	1,1%	1,0%
		Median	4,7%	4,5%	4,5%	4,4%	4,0%	3,8%	3,6%	3,7%	3,2%	3,0%	2,9%	2,8%	2,6%	2,5%	2,4%	2,3%	2,3%	2,4%	2,3%
		Third quartile	11,5%	11,9%	11,9%	12,3%	12,0%	11,3%	9,9%	10,2%	8,9%	8,5%	7,4%	7,1%	6,4%	6,0%	5,1%	4,9%	4,2%	4,2%	3,9%

	KRI	Descriptive Statistics	Dec-14	Mar-15	Jun-15	Sept-15	Dec-15	Mar-16	Jun-16	Sept-16	Dec-16	Mar-17	Jun-17	Sept-17	Dec-17	Mar-18	Jun-18	Sept-18	Dec-18	Mar-19	Jun-19
Profitability	11 - Return on equity	Weighted average	3,5%	6,9%	6,8%	6,4%	4,5%	5,6%	5,7%	5,4%	3,3%	7,3%	7,1%	7,2%	6,0%	6,8%	7,2%	7,3%	6,5%	6,8%	7,0%
		First quartile	-2,8%	3,4%	3,5%	3,5%	2,5%	1,9%	2,3%	2,4%	1,4%	3,0%	3,9%	4,1%	3,1%	3,9%	3,9%	4,2%	3,5%	3,2%	4,3%
		Median	3,8%	7,1%	7,0%	6,8%	5,7%	5,0%	6,2%	5,9%	5,5%	6,7%	7,5%	7,2%	6,6%	6,8%	6,8%	6,9%	6,7%	6,5%	6,3%
		Third quartile	8,0%	10,6%	10,5%	10,7%	9,1%	8,5%	9,7%	9,7%	9,6%	10,4%	10,4%	10,5%	10,5%	9,9%	10,1%	9,8%	9,5%	9,2%	10,0%
	12 - Return on assets	Weighted average	0,2%	0,4%	0,4%	0,4%	0,3%	0,4%	0,4%	0,3%	0,2%	0,5%	0,5%	0,5%	0,4%	0,5%	0,5%	0,5%	0,4%	0,5%	0,5%
		First quartile	-0,1%	0,2%	0,2%	0,2%	0,1%	0,1%	0,2%	0,1%	0,1%	0,2%	0,2%	0,2%	0,2%	0,3%	0,2%	0,2%	0,2%	0,2%	0,3%
		Median	0,2%	0,4%	0,4%	0,4%	0,3%	0,3%	0,4%	0,4%	0,4%	0,4%	0,5%	0,5%	0,4%	0,5%	0,5%	0,5%	0,4%	0,4%	0,5%
		Third quartile	0,5%	0,7%	0,7%	0,7%	0,6%	0,6%	0,6%	0,6%	0,6%	0,7%	0,8%	0,8%	0,9%	0,8%	0,9%	0,9%	0,8%	0,8%	0,8%
	13 - Cost to income ratio	Weighted average	62,9%	60,9%	59,3%	59,9%	62,8%	66,0%	62,7%	63,0%	65,3%	63,9%	61,6%	61,7%	63,4%	65,0%	63,8%	63,2%	64,5%	66,3%	64,1%
		First quartile	45,9%	44,8%	46,3%	46,9%	48,2%	50,7%	49,9%	49,5%	50,0%	49,7%	50,2%	49,5%	50,1%	51,3%	51,5%	50,3%	50,1%	52,6%	51,5%
		Median	58,5%	56,8%	55,9%	57,3%	59,2%	63,9%	59,8%	58,9%	61,2%	59,8%	58,0%	58,0%	59,5%	62,3%	62,1%	60,9%	62,5%	64,5%	63,2%
		Third quartile	69,7%	66,5%	65,3%	66,3%	67,7%	73,8%	70,7%	70,8%	73,2%	72,5%	69,0%	69,1%	70,2%	73,9%	73,5%	69,8%	70,7%	74,5%	72,5%
	14 - Net interest income to total net operating income	Weighted average	58,8%	55,5%	54,9%	56,3%	57,3%	58,8%	57,0%	57,7%	57,8%	55,9%	55,4%	56,9%	57,3%	56,7%	56,8%	57,4%	58,9%	58,2%	57,9%
		First quartile	49,6%	43,2%	45,9%	48,3%	48,9%	51,9%	50,4%	50,4%	49,7%	48,7%	50,1%	52,7%	48,5%	48,4%	51,1%	51,2%	53,4%	50,6%	52,4%
		Median	62,2%	58,3%	58,9%	59,9%	61,1%	64,7%	64,1%	62,6%	63,8%	62,7%	61,8%	62,9%	63,4%	63,6%	66,0%	65,2%	65,8%	65,5%	64,4%
		Third quartile	75,4%	73,8%	72,7%	77,6%	78,1%	80,7%	77,1%	76,8%	75,5%	75,9%	72,9%	74,5%	73,5%	77,2%	76,7%	75,7%	76,6%	77,3%	74,8%
	15 - Net fee and commission income to total net operating income	Weighted average	27,2%	26,6%	26,2%	26,4%	26,8%	27,1%	26,6%	27,1%	27,2%	27,5%	27,4%	27,8%	28,1%	28,5%	28,6%	28,3%	28,7%	28,2%	28,1%
		First quartile	13,7%	13,6%	13,5%	13,3%	12,2%	13,6%	11,8%	12,3%	12,6%	12,6%	13,0%	13,1%	13,7%	13,5%	14,1%	14,6%	15,5%	15,2%	15,3%
		Median	22,9%	22,6%	21,7%	21,6%	22,1%	23,3%	22,5%	23,2%	23,1%	23,1%	22,1%	22,2%	23,6%	25,6%	25,7%	25,3%	25,5%	25,6%	24,7%
		Third quartile	30,3%	31,4%	30,4%	30,9%	29,9%	32,9%	32,3%	32,6%	32,5%	32,3%	33,1%	33,1%	32,7%	33,2%	34,2%	33,5%	34,1%	32,9%	32,9%
	16 - Net trading income to total net operating income	Weighted average	6,7%	7,8%	6,5%	6,2%	5,8%	5,3%	5,4%	6,2%	6,1%	10,1%	9,2%	8,9%	8,5%	5,5%	6,3%	5,4%	3,1%	16,5%	12,4%
		First quartile	-0,5%	-1,0%	-1,1%	-1,4%	-0,6%	-1,8%	-1,2%	-0,2%	-0,1%	0,0%	0,1%	0,1%	0,0%	-0,1%	-0,3%	-0,1%	-0,3%	-0,1%	0,0%
		Median	1,2%	1,0%	1,3%	1,5%	1,1%	0,2%	0,4%	1,0%	1,6%	1,9%	2,1%	2,5%	1,5%	1,3%	1,0%	0,8%	0,6%	1,9%	1,2%
		Third quartile	5,4%	9,6%	5,5%	4,4%	4,8%	3,9%	3,8%	4,5%	7,5%	7,9%	7,8%	7,2%	6,6%	6,8%	5,2%	4,5%	2,8%	10,1%	7,1%

	KRI	Descriptive Statistics	Dec-14	Mar-15	Jun-15	Sept-15	Dec-15	Mar-16	Jun-16	Sept-16	Dec-16	Mar-17	Jun-17	Sept-17	Dec-17	Mar-18	Jun-18	Sept-18	Dec-18	Mar-19	Jun-19
Profitability	17 - Net interest margin	Weighted average	1,6%	1,6%	1,6%	1,6%	1,6%	1,5%	1,5%	1,5%	1,5%	1,5%	1,5%	1,5%	1,5%	1,4%	1,4%	1,4%	1,5%	1,4%	1,4%
		First quartile	1,1%	1,0%	1,1%	1,0%	1,1%	1,1%	1,0%	1,1%	1,1%	1,0%	1,0%	1,0%	1,0%	1,0%	1,0%	1,0%	1,0%	1,0%	1,0%
		Median	1,5%	1,5%	1,5%	1,5%	1,5%	1,4%	1,4%	1,4%	1,4%	1,4%	1,4%	1,4%	1,4%	1,4%	1,4%	1,4%	1,5%	1,4%	1,4%
		Third quartile	1,8%	1,8%	1,8%	1,8%	1,9%	2,0%	1,8%	1,9%	1,8%	1,9%	1,9%	1,9%	1,9%	2,0%	2,0%	2,0%	2,1%	2,0%	2,0%
	18 - Cost of Risk	Weighted average														0,6%	0,3%	0,3%	0,4%	0,7%	0,5%
		First quartile														0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
		Median														0,1%	0,1%	0,1%	0,2%	0,1%	0,1%
		Third quartile														0,2%	0,3%	0,3%	0,6%	0,2%	0,3%
Funding and Liquidity	19 - Loan-to-deposit ratio (for households and non-financial corporations)	Weighted average	124,7%	125,7%	125,3%	123,6%	121,6%	122,3%	121,1%	120,9%	119,3%	118,9%	118,2%	118,0%	117,4%	118,6%	118,3%	118,4%	117,1%	116,8%	116,4%
		First quartile	97,5%	99,1%	100,1%	99,7%	94,0%	95,7%	96,4%	93,2%	93,5%	94,2%	91,2%	91,6%	90,3%	89,5%	90,3%	93,5%	90,9%	89,4%	90,5%
		Median	121,1%	122,2%	120,6%	120,0%	118,3%	119,3%	117,9%	116,9%	116,1%	117,7%	114,9%	113,6%	114,1%	113,7%	112,2%	112,1%	111,2%	108,1%	108,7%
		Third quartile	191,8%	188,0%	183,0%	187,0%	179,4%	175,6%	176,0%	179,8%	192,5%	181,7%	163,9%	175,4%	174,7%	179,9%	180,7%	181,6%	186,1%	164,1%	173,4%
	20 - Asset encumbrance ratio	Weighted average	25,4%	25,6%	25,8%	25,4%	25,5%	25,4%	25,5%	26,5%	26,6%	27,7%	28,0%	27,9%	27,9%	28,4%	28,0%	28,7%	28,0%	27,6%	27,5%
		First quartile	13,1%	14,3%	13,7%	13,7%	15,0%	14,3%	12,8%	14,0%	13,5%	14,3%	13,7%	13,0%	13,4%	14,2%	13,8%	13,3%	12,7%	12,1%	11,9%
		Median	24,3%	24,8%	25,3%	24,9%	25,4%	24,6%	24,9%	24,3%	24,6%	25,3%	24,3%	25,0%	23,7%	23,8%	23,9%	24,0%	23,7%	22,3%	22,3%
		Third quartile	38,8%	38,4%	36,2%	36,9%	35,7%	36,2%	36,1%	36,9%	37,4%	37,9%	36,8%	35,6%	35,1%	35,1%	34,0%	33,8%	34,0%	32,9%	32,4%
	21 - Liquidity coverage ratio (%)	Weighted average								140,4%	141,3%	144,7%	145,5%	144,5%	148,3%	147,0%	148,3%	148,5%	151,4%	152,3%	149,2%
		First quartile								127,1%	128,4%	131,7%	135,8%	133,3%	139,7%	139,8%	139,8%	137,1%	140,4%	147,0%	140,9%
		Median								150,3%	154,1%	156,6%	159,0%	158,0%	167,6%	165,6%	162,0%	161,4%	171,6%	170,6%	171,6%
		Third quartile								243,3%	243,9%	221,1%	230,8%	228,8%	236,7%	234,8%	223,2%	225,2%	247,5%	242,9%	248,0%

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