



RISK ASSESSMENT OF THE EUROPEAN BANKING SYSTEM

DECEMBER 2020



EBA

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Abbreviations

AI	Artificial Intelligence	EU	European Union
AML	anti-money laundering	FBL	forborne loan(s)
APP	asset purchase programme	FED	federal reserve (system) (of the US)
AT1	additional tier 1	FINREP	financial supervisory reporting
AUM	assets under management	FinTech	financial technology
bp(s)	basis point(s)	G-SII	global systemically important institution(s)
CCB	capital conservation buffer	GDP	gross domestic product
CCyB	countercyclical capital buffer	GFC	global financial crisis
CEE	central and eastern European	GHG	greenhouse gas
CET1	common equity tier 1	HoldCo	holding company
CFT	countering the financing of terrorism	IBOR	interbank offered rate
CLO	collateralised loan obligation	ICT	information and communication technology/ technologies
CO2	carbon dioxide	IFRS	International Financial Reporting Standard
COE	cost of equity	IMF	International Monetary Fund
COREP	common reporting (prudential supervisory reporting)	IRB	Internal ratings based
COVID-19	coronavirus disease 2019	LCR	liquidity coverage ratio
CPRS	climate policy-relevant sectors	LGD	loss given default
CRD	Capital Requirements Directive	LIBOR	London interbank offered rate
CRE	Commercial Real Estate	LTRO	long-term refinancing operation
CRM	credit risk mitigation	M&A	mergers and acquisitions
CRR	Capital Requirements Regulation	ML	money laundering
CVA	credit valuation adjustment(s)	MMF	Money market fund(s)
EBA	European Banking Authority	MREL	minimum requirement for own funds and eligible liabilities
ECB	European Central Bank	NACE	“Nomenclature des Activités Économiques dans la Communauté Européenne (statistical classification of economic activities in the European Community)”
EEA	European economic area	NFC	non-financial corporate
EIOPA	European Insurance and Occupational Pensions Authority	NFCI	net fee and commission income
EONIA	Euro Over Night Index Average	NII	net interest income
ESG	environmental, social and governance		
ESMA	European Securities and Markets Authority		
ESRB	European Systemic Risk Board		
€STR	Euro short-term rate		

NIM	net interest margin	RAQ	risk assessment questionnaire
NOI	net operating income	RAR	risk assessment report (report on the risk assessment of the European Banking System)
NPL	non-performing loan(s)		
NTI	net trading income	RoE	return on equity
O-SII	other systemically important institution(s)	RWA	risk-weighted assets
OCR	overall capital requirements	SME	small and medium-sized enterprises
P&L	profit and loss	SONIA	Sterling Overnight Index Average
P2G	Pillar 2 guidance	SRB	Single Resolution Board
P2R	Pillar 2 requirements	SSM	Single Supervisory Mechanism
PD	probability of default	SyRB	systemic risk buffer
PELTRO	pandemic emergency long-term refinancing operation	TF	terrorist financing
PGS	public guarantee scheme(s)	TLTRO	targeted long-term refinancing operation
PMI	Purchasing Managers Index	UK	United Kingdom
p.p.	percentage point(s)	V2X	European Volatility Index
Q1	first quarter	YoY	year on year
Q2	second quarter	YtD	year to date
QoQ	quarter on quarter		

Executive summary

The COVID-19 pandemic is an unprecedented shock. The surge in reported cases in February and March led governments worldwide to impose strict containment measures. Gross domestic products (GDPs) contracted sharply. In response to these challenges, public authorities adopted extraordinary fiscal, monetary and regulatory policies to support the real economy and ensure that the banking sector could keep financing households and corporates. As the number of COVID-19 cases decreased in May, authorities gradually lifted restrictions. Nonetheless, infections have rapidly increased again in a new wave of the pandemic, and containment measures have resumed in many EU Member States. Economic recovery prospects remain subject to a high degree of uncertainty.

Compared with the previous crisis, bank lending to the real economy has increased. In the early stages of the COVID-19 outbreak, non-financial corporations (NFCs), especially small and medium-sized enterprises (SMEs), made use of available loan commitments to secure liquidity and operational continuity. Later on, credit demand was mostly driven by government guaranteed loans. The increase in lending, along with the surge in cash balances that followed central bank extraordinary liquidity allotments, has resulted in a 7% increase in total assets year on year (YoY). Looking forward, the question of whether banks maintain adequate lending volumes will be important, particularly when public guarantee schemes (PGS) for new lending end.

Despite the stability of the non-performing loan (NPL) ratios, other metrics show early indications of deterioration in asset quality. The volume of NPLs slightly increased in the second quarter, but the NPL ratio continued its contracting trend (50 basis points [bps] down YoY) due to raising loan volumes. However, loans classified under IFRS 9 stage 2 as well as the volume of forborne loans have increased markedly. Although there are substantial differences among countries and institutions, on average banks have booked

significant provisions on performing loans that resulted in a rising cost of risk. It still needs to be seen how the phasing out of COVID-19-related measures, such as moratoria on loan repayments and public guarantees, will affect asset quality, but it is very likely it will deteriorate further.

Banks have significant exposures that are vulnerable to climate risk. According to a preliminary analysis of recently collected data, more than 50% of exposures to large corporates are to sectors potentially subject to transition risk. In particular, the largest share of climate-relevant exposures comprises exposures to manufacturing, electricity, construction, transport and real estate sectors.

Banks maintain comfortable funding and liquidity profiles, supported by central bank measures. Bank debt spreads, which had previously stood at historically low levels, widened sharply as the pandemic hit Europe, whereas primary market activity came to a temporary halt. In this context, banks made extensive use of enhanced central bank liquidity facilities. In contrast to wholesale funding, deposits have not been materially affected by the pandemic, and they have even increased at a faster pace than loans. Since a wide range of monetary and fiscal support measures have been introduced, debt spreads have returned to pre-crisis levels, and banks have issued instruments all across the capital structure again. Liquidity coverage ratios (LCRs) stand now even above pre-COVID-19 levels that were already high.

After a decrease in the first quarter of 2020, CET1 ratios recovered most of the lost ground in the second quarter. CET1 ratios are up YoY, thanks to a pick-up in capital and a slower increase in risk-weighted assets (RWAs) amid public guaranteed loans and regulatory relief measures. The leverage ratio reduced slightly as the growth in total assets exceeded the growth in capital.

Impairment costs have further depressed structural low profitability. As banks are provisioning against expected credit losses, mounting impairments are dragging profitability down further. In addition, operating revenues are under pressure from subdued economic activity, low interest rates and intense competition in several countries. Although operating expenses have decreased significantly year to date (YtD), the decline was concentrated in Q2 of 2020 and was related to administrative costs different from staff expenses that may bounce back once the pandemic is over.

Banks have been able to perform their critical functions largely unaffected by containment measures. Nonetheless, in the early stages of the crisis, high volumes of applications for moratoria and guaranteed loans,

as well as difficulties faced by some service providers in non-EU countries to keep operating under strict lockdowns, posed some challenges for business continuity. The usage of information and communication technology (ICT) has grown further, increasing technology-related risks.

Reputational and operational challenges, including to business conduct, have not abated. Banks and analysts share the view that the importance of operational risk has recently increased. A larger reliance on digital transactions may also lead to an increase in financial crime. The number of high-profile cases of money laundering involving European banks in the past few years have highlighted the importance of increased vigilance of both firms and supervisors in this regard.



Introduction

This report describes the main developments of and trends in the EU banking sector since the end of 2019 and provides the European Banking Authority (EBA) outlook on the main risks and vulnerabilities ⁽¹⁾. As in 2019, the December 2020 risk assessment report (RAR) is published along with the EU-wide 2020 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 risk assessment questionnaire (RAQ), addressed to banks and market analysts;
- market intelligence as well as microprudential qualitative information.

The RAR builds on the supervisory reporting data that competent authorities submit to the EBA on a quarterly basis for a sample of 162 banks from 29 European Economic Area (EEA) countries (131 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 figures in this report refer to weighted-average ratios if not otherwise indicated ⁽³⁾. Fol-

lowing the United Kingdom's (UK) departure from the EU, banks domiciled in the United Kingdom are not included in the figures based on supervisory reporting data for the current year. For previous years, EU-27/respective EEA pro-forma data are used to make consistent comparisons.

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 60 European banks (Annex I) and 15 market analysts during August and September 2020. 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 31 October 2020, if not otherwise indicated.

The EBA is disclosing, along with the RAR, bank-by-bank data as part of the 2020 EU-wide transparency exercise for two reference dates (March 2020 and June 2020). 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 2020 transparency exercise includes 129 banks from 26 countries at the highest level of consolidation in the EU/EEA as of June 2020. In addition, the sample includes six banks from the United Kingdom ⁽⁵⁾. The EU-wide transparency exercise relies entirely 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 2020.

⁽³⁾ There might be slight differences between some of the risk indicators covered in the Q2 2020 version of the risk dashboard, published on 5 October 2020, and this report as a result of data resubmissions by banks. The EBA risk dashboard is available online. The annex to the risk dashboard also includes a description of the risk indicators covered in this report and their calculations, and further descriptions are available in the EBA's guide to risk indicators.

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

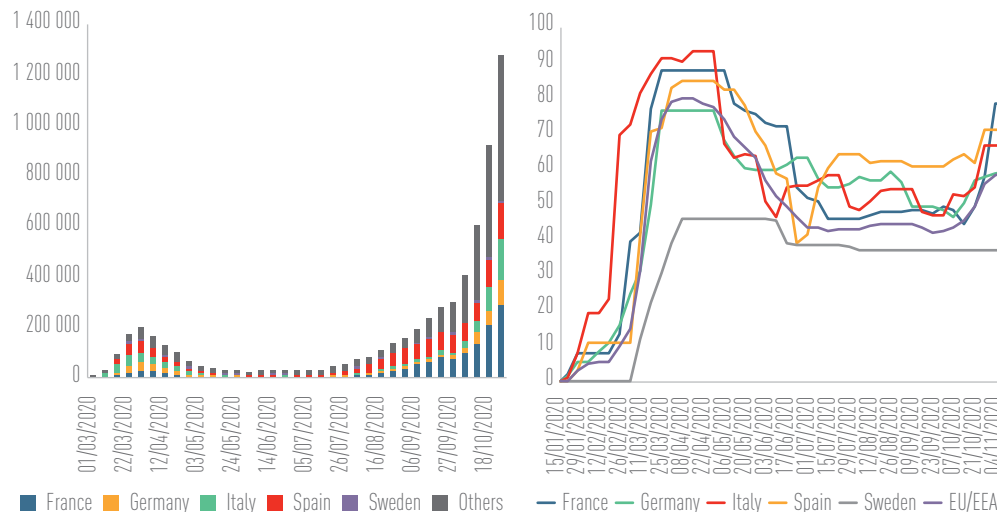
⁽⁵⁾ A list of banks covered by supervisory reporting, the transparency exercise and the RAQ is included in Annex I.

1. Macroeconomic environment and market sentiment

In 2020, the COVID-19 pandemic completely changed the economic and social landscape, generating an unprecedented worldwide shock. In Europe, the number of cases rapidly increased in the second half of February, forcing governments to impose strict containment measures to prevent the collapse of national healthcare systems (Figure 1).

Although from the second half of May the number of reported cases significantly fell, allowing governments to gradually ease the measures, they started to rise again in September, forcing many national authorities to reintroduce measures to limit the spread of the pandemic. In this context, the outlook is subject to a high degree of uncertainty.

Figure 1: Weekly COVID-19 confirmed cases (left) and stringency of containment measures (right)
Sources: European Centre for Disease Prevention and Control and Oxford COVID-19 Government Response Tracker, EBA calculations.



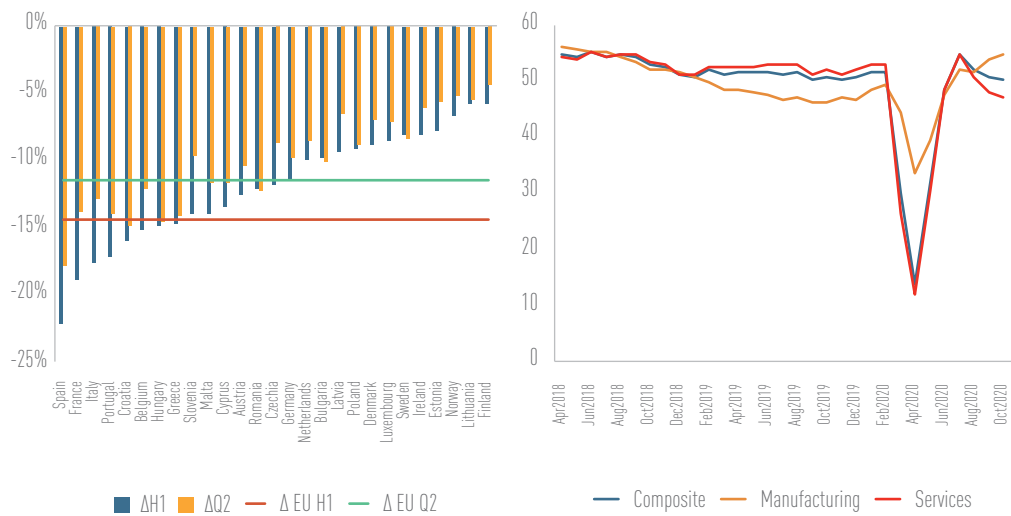
With many firms forced to close in accordance with the containment measures, the EU GDP started declining in Q1 (-3.3%), before recording a sharp contraction in Q2 (-11.4%). At country level, Spain experienced the worst GDP drop in the first half of the year (-22.2%), followed by France (-18.9%) and Italy (-17.6%). However, Nordic countries were among those recording a smaller contraction in GDP (Figure 2) ⁽⁴⁾.

Economic activity gradually started to recover from May, when the lockdowns were gradually lifted across Europe, as signalled by the movements of the Purchasing Managers Index (PMI). After dropping to 13.8 in April, the EU composite PMI started growing in May and touched its yearly peak in July (54.8), before slowing in August and September. Similar movements are observed for the retail trade. Overall, after a strong rebound, the growth rate gradually lost momentum amid a normal slowdown in summer months and a rebound in COVID-19 cases.

⁽⁴⁾ See the Commission Autumn 2020 Economic Forecast, November 2020.

Figure 2: EU GDP growth in Q2 2020, by country (left) and EU composite PMI and sub-indices (right)

Sources: Eurostat and Bloomberg, EBA calculation.

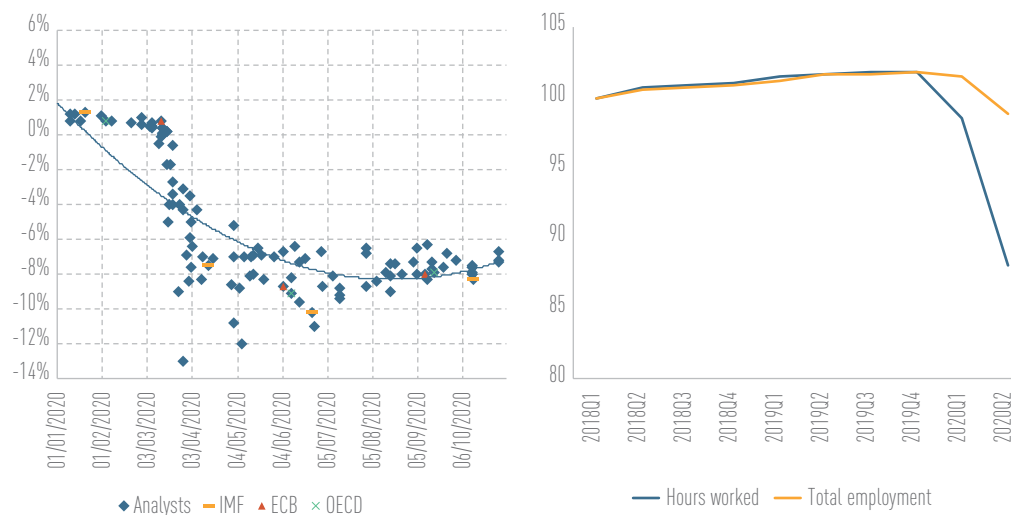


According to the European Commission Autumn 2020 Economic Forecast, the EU's GDP is expected to remain unchanged in Q4 compared to Q3, resulting in a yearly contraction of the EU GDP of 7.4% [7]. At country level, the GDP is expected to decline, for instance by 5.6% in Germany, 9.4% in France, 9.9% in Italy and 12.4% in Spain, according to the European Commission. In a similar vein, the Interna-

tional Monetary Fund (IMF) also updated its forecasts. Although its June World Economic Outlook projected a contraction of 10.2% for the euro area, its latest projections expect an 8.3% GDP fall [8]. The increase in COVID-19 cases in recent weeks and the reintroduction of public health measures to limit the spread of the pandemic pose relevant downside risks going forward (Figure 3).

Figure 3: Evolution of EU GDP 2020 forecasts (left) and total worked hours versus total employment (index Q1 2018 = 100; right)

Sources: Bloomberg and Eurostat, EBA calculation.



[7] See the European Commission Autumn 2020 Economic Forecast, November 2020.

[8] IMF, World Economic Outlook, June 2020; IMF, World Economic Outlook, October 2020.

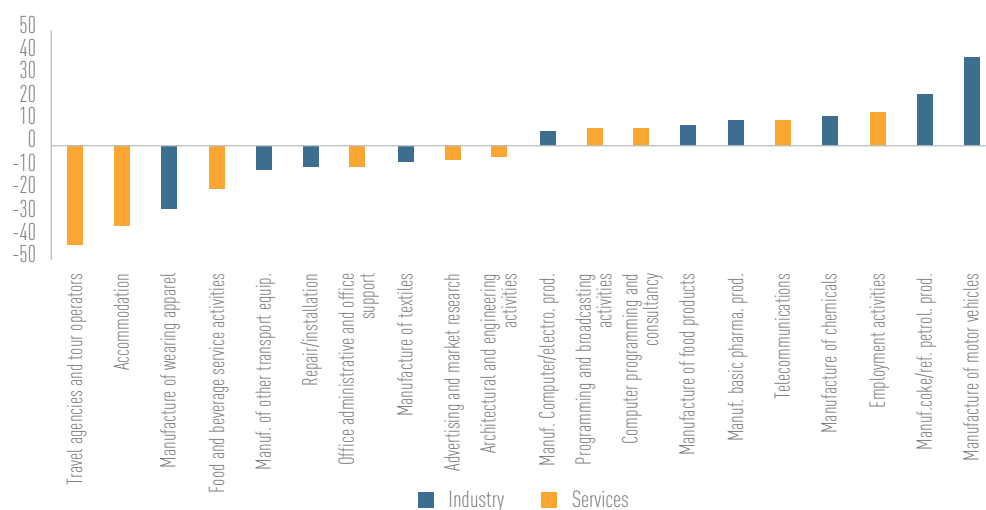
The contraction of economic activity is also affecting the job market. In the EU, the number of hours worked declined by 3.1% in Q1 and 10.7% in Q2. Nevertheless, thanks to the implementation of employment support measures (e.g. furlough schemes), total employment recorded smaller contractions (-0.2% in Q1 and -2.7% in Q2). In September, the EU unemployment rate stood at 7.5% (up from 6.5% in December 2019). Looking ahead, the unemployment rate is expected to grow, as labour market support measures are gradually phased out. The European Commission Autumn 2020 Economic Forecast projects EU unemployment to stand at 7.7% by the end of 2020, before peaking at 8.6% in 2021.

Uneven impact of the pandemic on different sectors

The pandemic is affecting all economic activities, but the magnitude of its impact is different across sectors. The EU PMIs show that the services index dropped to a lower level in April than the manufacturing index (12 and 33.4, respectively) and also show a weaker recovery until September (48 versus 53.5). This signals that services suffered the most from the initial lockdowns and that their recovery seems to be weaker than that of the manufacturing sector (Figure 2).

Figure 4: European Commission business confidence survey, selected sectors

Sources: Eurostat and European Commission business confidence surveys, EBA calculation.



Looking ahead, the European Commission business confidence survey shows that the sectors in which firms are more pessimistic are travel agencies and tour operators, accommodation and the manufacture of wearing apparel, whereas among the sectors in which firms are showing more optimism are the manufacture of motor vehicles, the manufacture of chemicals and telecommunication [?].

Financial markets were significantly affected

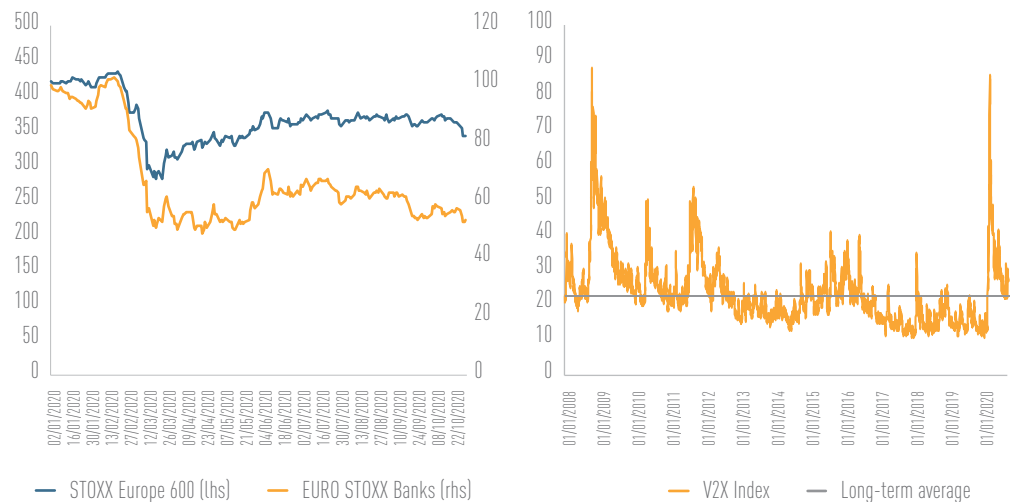
Movements on financial markets reflected the disruptive impact of the pandemic. From the 21 February, when the COVID-19 outbreak unfolded in Italy, the Euro Stoxx 600 contracted by as much as 35% and started recovering at the end of March (in 30 October it stood at 20% below pre-COVID levels). The banking

index has underperformed the benchmark index since the European outbreak of the virus: it reached its lowest level in the second half of April, after falling by 50% compared with pre-COVID-19 levels, and its recovery is still proving rather weak (as of 31 October it stood at 45% below pre-COVID-19 levels).

Overall, although equity markets reflect some prospects of improvement in the performance of European firms, uncertainty over the pace of recovery still weighs on their valuations. This is especially true for European banks, whose valuations are strongly affected by fears over an increase in defaults, in particular in the sectors more affected by the pandemic. As a result of the discussed movements in stock prices, the European Volatility Index (V2X) spiked to levels only observed during the Global Financial Crisis (GFC). Although the V2X significantly declined from its peak, it still stands above its long-term average.

[?] See the Commission website on the latest business and consumer surveys.

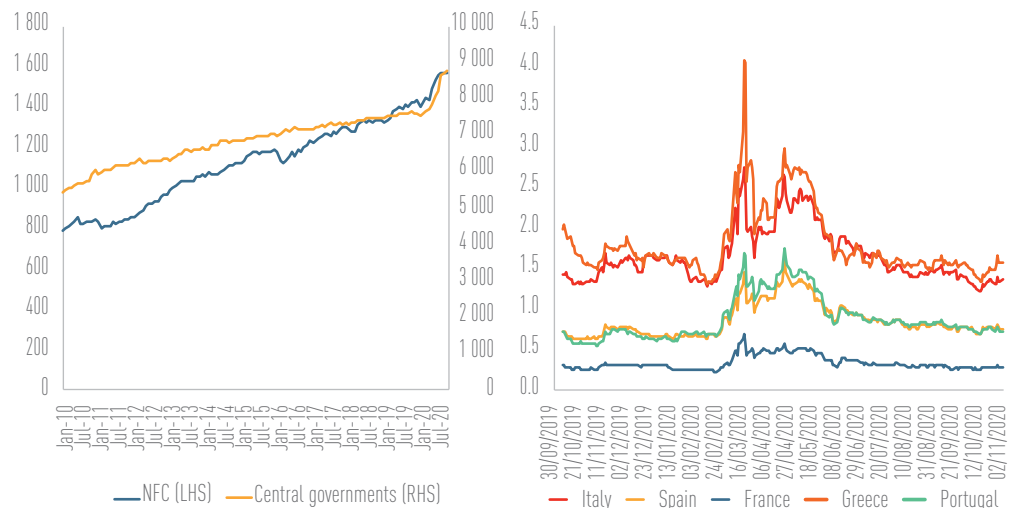
Figure 5: Euro Stoxx general and banking indexes (left) and V2X (right)
 Source: Bloomberg, EBA calculation.



The amount of debt securities issued by governments strongly increased from March, as governments set up programmes to support the national economies. This led to a widening in sovereign spreads around mid-March, before the European Central Bank (ECB) in-

tervened with ad hoc programmes to stabilise the financial markets (see Box 1). Similarly, the amount of debt securities issued by NFCs significantly increased in April and May, before normalising in summer.

Figure 6: Outstanding amount of debt securities issued by NFCs and governments (EUR billion) (left) and selected government spreads versus Bund (10 years; right)
 Sources: ECB and Standard & Poor's (S&P) Market Intelligence, EBA calculation.



Beyond the importance of the impact of the COVID-19 pandemic on market sentiment, analysts have identified, in the autumn 2020 RAQ, other factors negatively affecting market sentiment, such as monetary policy in the EU, regulatory and supervisory uncertainty, and geopolitical risks and political uncer-

tainty outside the EU. However, analysts have indicated that some regulatory and policy steps (e.g. quantitative easing and progress on the Banking Union) and COVID-19-related mitigating measures are positively supporting market sentiment.

Box 1: The policy response to COVID-19

The disruptions from the COVID-19 pandemic led to the adoption of extraordinary policy measures to support economies [10]. The responses have included monetary measures, fiscal stimulus and ad hoc regulatory packages to support credit markets and banks' lending to households and NFCs.

Monetary policy

On the monetary side, the ECB reinforced the asset purchase programme (APP), with an additional EUR 120 billion envelope (on top of the EUR 20 billion net monthly purchases announced in September 2019) to be spent by the end of 2020. The purchasing power was enhanced by the introduction of the pandemic emergency purchase programme (PEPP), a temporary programme (to last until the end of June 2021 at least) for the purchase of public and private sector assets, with an overall envelope of EUR 1.35 trillion [11]. To ensure flexible management of the crisis, the PEPP (and the additional APP envelope) allow temporary fluctuations to occur in the allocation of purchases over time as well as across countries and asset classes. Between March and September 2020, the PEPP cumulative net purchases amounted to EUR 567 billion, with the public sector accounting for about 90% of the overall purchases.

In addition, the ECB decided to enhance its long-term refinancing operations (LTROs). The conditions of the targeted LTROs (TLTRO-3) were eased (see Chapter 3) and additional LTROs were conducted between March and June [12]. The pandemic emergency LTROs (PELTROs), consisting of seven non-targeted operations, were introduced to ensure that sufficient liquidity is provided throughout the pandemic period [13]. Further measures included the relaxation of the collateral framework and

the enhancement of the existing US dollar swap operations (lower pricing and higher frequency) [14].

Similar policy packages were implemented in Member States outside the euro area. They include support for sovereign bonds via APPs, strengthening banks' access to liquidity, and policy rate cuts and swap lines with the ECB as well as the Federal Reserve Bank (FED) [15].

Fiscal policies

The Eurogroup approved a EUR 540 billion package to sustain the job market (EUR 100 billion), provide guarantees for loans to companies (EUR 200 billion, through the European Investment Bank) and support Member States through the European Stability Mechanism (EUR 240 billion). Along with a reinforced EU 2021-2027 budget (EUR 1 074 billion overall), Member States agreed on a temporary EUR 750 billion recovery fund, financed by resources that the EU borrowed directly. The package, aimed at sustaining economic recovery in the EU, will consist of seven programmes and will be distributed in the form of loans (EUR 360 billion) and grants (EUR 390 billion). The allocation across countries will depend on a set of criteria reflecting the pre-crisis economic conditions (unemployment, GDP per capita and population) and the impact of the pandemic (drop in GDP in 2020 and 2021) [16].

To also allow proper fiscal support at the national level, the general escape clause of the Stability and Growth Pact was activated for the first time, permitting Member States to temporarily deviate from the normal requirements [17]. In addition, the European Commission adopted a temporary framework for state aid rules, allowing countries to provide targeted support to companies that are facing financial issues because of the COVID-19 pandemic (and to micro and small companies, even if they

[10] Although here the focus is on measures adopted in the EU, the IMF provides, for instance, an overview of measures worldwide.

[11] See the ECB press release on the PEPP (18 March 2018) and the subsequent communication on the PEPP expansion (4 June 2020).

[12] See the ECB press release on the additional LTROs, the easing of the TLTRO-3 conditions and the additional APP envelope (12 March 2020). See also the press release on further easing of TLTRO-3 conditions (30 April 2020).

[13] See the ECB press release on the PELTROs (30 April 2020).

[14] See the ECB COVID-19-related measures and the summary of the ECB's monetary policy response to the COVID-19 crisis, produced by the European Parliament.

[15] See the IMF for an extensive list of the monetary measures adopted in each country.

[16] See the European Commission web page on the EU's response to the economic fallout following the COVID-19 outbreak. See also the European Council's web page on the recovery plan for Europe as well as the conclusions from the meeting of the European Council, when Member States agreed on the recovery plan.

[17] See the statement of EU ministers of finance on the Stability and Growth Pact in the light of the COVID-19 crisis.

were in financial distress before the pandemic) ^[18].

National fiscal measures are mainly aimed at strengthening healthcare systems, supporting firms, with a particular focus on SMEs, preserving employment and supporting the wages of workers under the furlough schemes. Countries also introduced measures to provide liquidity support to economies, such as the application of moratoria on loan repayments, loans guarantee schemes (see Chapters 2 and 4 on these two topics) and the deferral or cancellation of tax and social security contributions ^[19].

Overall, the Commission Autumn 2020 Economic Forecast points out that the EU deficit is expected to drastically increase in 2020 to about 8.4% of GDP (from 0.6% in 2019). Nevertheless, the EU deficit is expected to improve in 2021 (to about 6.1% of GDP) due to the rebound in GDP and the gradual termination of the measures implemented to support the economies. The European Commission also expects all Member States (with the exception of Bulgaria) to exceed the 3% deficit to GDP criterion in 2020, with around two thirds of them still exceeding the limit in 2022 ^[20].

Prudential and supervisory measures

EU and national authorities have adopted supervisory and regulatory measures to guarantee banks' continued support of the economy. At the beginning of the crisis, one of the primary goals of regulators and supervisors was to provide operational relief to banks. Related measures included the postponement of the EU-wide 2020 stress test exercise to 2021, coupled with the EBA's recommendations to follow a pragmatic approach in the supervisory review and evaluation process and to consider the possibility of giving banks some leeway in

regard to the remittance dates for some areas of supervisory reporting ^[21].

Supervisors and regulators also addressed the extreme market volatility that followed the pandemic outbreak. In this respect, the EBA published several supervisory measures aiming to soften the potential impact on banks ^[22].

One of the most relevant measures taken by prudential authorities was allowing banks to use capital buffers and operate temporarily below the level of capital defined by the Pillar 2 guidance (P2G) (see also Chapter 4) ^[23]. These measures have been backed by the decision of national macroprudential authorities to reduce, for instance, countercyclical capital buffers (CCyBs) or systemic risk buffers (SyRBs). In addition, and in line with the approach that has already been applied in other EU jurisdictions, the Single Supervisory Mechanism (SSM) has allowed banks to partially meet Pillar 2 requirements (P2R) using non-CET1 capital instruments (i.e. Additional Tier 1 (AT1) or Tier 2), anticipating a measure that was scheduled for January 2021 ^[24]. Furthermore, banks were allowed to use their liquidity buffers, following the understanding that the LCR is also designed to be used by banks under stress. To improve banks' loss-absorbing capacity and to provide the needed support to the economy, banks were asked to follow a prudent approach on dividend payments and other distribution policies, including variable remuneration ^[25].

^[18] See the European Commission press release on the adoption of the State Aid Temporary Framework and the press release on the extension of the temporary framework until June 2021. Notice that the section to enable recapitalisation support is prolonged for 3 months until 30 September 2021 (see the corresponding press release).

^[19] The Commission keeps an extensive list of the policy measures adopted by EU countries, whereas a global list of policy measures is provided by the IMF.

^[20] See the European Commission Autumn 2020 Economic Forecast, November 2020.

^[21] See for instance the EBA Guidelines on the pragmatic 2020 supervisory review and evaluation process in light of the COVID-19 crisis and the EBA statement on supervisory reporting and Pillar 3 disclosures in light of COVID-19. The latter includes certain statements on potential flexibilities related to Pillar 3 disclosures.

^[22] See for instance the EBA statement on the application of the prudential framework on targeted aspects in the area of market risk.

^[23] See for instance the EBA statement on actions to mitigate the impact of COVID-19 on the EU banking sector and the ECB's statement on temporary capital and operational relief in reaction to COVID-19, which also allowed banks to operate temporarily below their capital conservation buffer.

^[24] See the ECB press release on the measures to provide temporary capital and operational relief in reaction to COVID-19.

^[25] See the EBA statement EBA statement on actions to mitigate the impact of COVID-19 on the EU banking sector, the recommendation of the European Systemic Risk Board (ESRB) on restriction of distributions during COVID-19 pandemic (ESRB/2020/7), the ECB recommendation not to pay dividends and similar statements from national competent authorities.

The set of measures adopted to facilitate banks' role in supporting the economy also included the Capital Requirements Regulation (CRR) 'quick fix', which was approved by the European Parliament in June 2020 ^[26]. To support banks' capital and their lending capacity amid a likely increase in expected credit losses, it was decided that NPLs guaranteed by national governments could temporarily receive the same preferential treatment as those guaranteed by official export credit agencies for the purposes of the NPL prudential backstops. Similarly, the transitional arrangements for mitigating the impact of the introduction of International Financial Reporting Standard (IFRS) 9 on own funds have been extended by 2 years.

Other measures were introduced, with an earlier application than originally planned, to incentivise banks to finance SMEs by extending the scope of the SME supporting factor. A supporting factor for infrastructure projects was also introduced. A more favourable prudential treatment was also granted for certain loans to pensioners or employees, and banks were temporary allowed to remove unrealised gains and losses on certain public sector exposures from the calculation of their CET1 ratio. In addition, certain exposures to central banks can be excluded from the calculation of an institution's leverage ratio, and the application of the leverage ratio buffer requirement for global systemically important institutions (G-SIIs) was deferred by 1 year to 1 January 2023 ^[27].

In the light of the acceleration in the reliance on digital services induced by the pandemic, the decision to replace the cur-

rent upfront full deduction of software from CET1 capital was brought forward. The EBA adopted and submitted to the European Commission its final draft regulatory technical standards) on the prudential treatment of software assets, introducing an approach based on a prudential amortisation calibrated over a period of a maximum of 3 years ^[28].

In April, the EBA released its guidelines on legislative and non-legislative loan repayment moratoria. These guidelines detail the criteria to be fulfilled by legislative and non-legislative moratoria on loan repayments applied in the light of the COVID-19 crisis. The aim of these guidelines is to clarify the requirements for public and private moratoria, which, if fulfilled, will avoid the automatic classification of exposures under the definition of forbearance or as defaulted under distressed restructuring. The guidelines were phased out as of 30 September 2020 ^[29]. However, following the new wave of the pandemic, the EBA reactivated the Guidelines in December 2020 ^[30]. The revised Guidelines, which will apply until 31 March 2021, include additional safeguards against the risk of an undue increase in unrecognised losses on banks' balance sheet.

Already in March the EBA issued a statement on consumer protection in relation to loan moratoria. The statement also stresses the need for well-functioning payment services, with a particular focus on contactless payments. In another statement, published in July, the EBA highlighted the importance of resolution planning in times of uncertainty ^[31].

^[26] See the Regulation (EU) 2020/873 of the European Parliament and of the Council of 24 June 2020 amending Regulations (EU) No 575/2013 and (EU) 2019/876 as regards certain adjustments in response to the COVID-19 pandemic.

^[27] See the ECB press release on the measures adopted to allow temporary relief in banks' leverage ratio after declaring exceptional circumstances due to pandemic, and the EBA Guidelines on supervisory reporting and disclosure requirements in compliance with the CRR 'quick fix' as well as EBA Final report on the draft ITS on supervisory reporting (CRR quick fix in the light of COVID-19). See also EBA Guidelines amending Guidelines EBA/GL/2018/01 to ensure compliance with the CRR 'quick fix' in response to the COVID-19 pandemic.

^[28] EBA's draft regulatory technical standards on the prudential treatment of software assets.

^[29] See EBA Guidelines on legislative and non-legislative moratoria on loan repayments applied in the light of the COVID-19 crisis. See also the EBA decision to extend deadline for the application of its Guidelines on payment moratoria to 30 September and the EBA decision to phase out its Guidelines on legislative and non-legislative loan repayments moratoria.

^[30] See EBA decision to reactivate its Guidelines on legislative and non-legislative moratoria.

^[31] See EBA statement on consumer and payment issues in light of COVID-19 and EBA statement on resolution planning in light of the COVID-19 pandemic.

Box 2: Risks from the UK withdrawal from the EU at the end of the transition

The transition period following the UK withdrawal from the EU (Brexit) will end on 31 December 2020, which will imply significant changes for market participants. UK-based financial institutions will lose the ability to provide cross-border services in the EU without proper authorisations and establishment in the EU. The EBA, together with the competent authorities across the EU, continues to monitor the preparation of affected financial institutions for the end of the transition period. The EBA reminded institutions to finalise the full execution of their contingency plans in accordance with the conditions agreed with relevant competent authorities. Institutions were also reminded to ensure adequate communication regarding their preparations and possible changes, in particular regarding availability and continuation of services after the end of the transition period, to any affected EU customers ^[32].

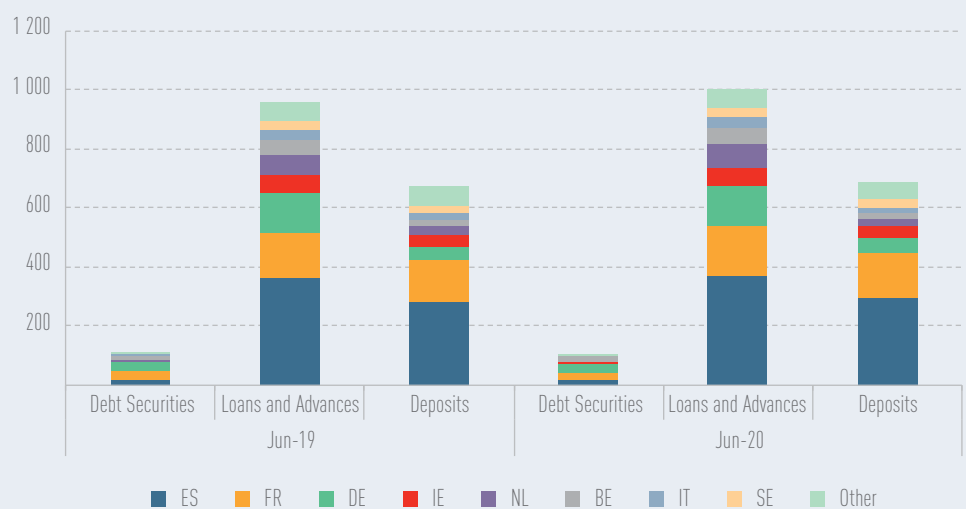
Advances in the past months have contributed to an overall satisfactory level of preparations. However, there are still some institutions relocating to the EU as a consequence of Brexit that have not yet fully completed the roll-out of their EU operations. In particular, they should ensure that adequate management and risk management capabilities are in place in the EU and that their EU customers' exposures have been transferred into entities domi-

ciled in the EU. Some relocating payment institutions that submitted applications only recently may not receive their authorisation to operate in the EU by the end of the transition period, and have therefore been asked by the relevant competent authorities to introduce contingency measures.

Exposure of EU banks to the United Kingdom increased compared with June 2019 and amounted to close to EUR 1.11 trillion in June 2020. The relative increase is much less than the overall increase in the total volume of loans and advances of EU banks during the same period and may reflect a diminishing interest in business with an exposure to UK counterparties (see Chapter 2.1 on general trends in asset volumes).

Total exposure volumes that slightly increased during this period may have possibly been driven by the usage of lending support schemes, committed credit lines and liquidity support schemes available to UK counterparties in a response to the COVID-19 crisis. Banks domiciled in Germany, Spain and France have the largest volumes of exposure to UK counterparties. These exposures are mostly concentrated in a few banks through their subsidiaries in the United Kingdom. The exposures of banks domiciled in Belgium, Ireland and the Netherlands are also relatively large; banks domiciled in Ireland are substantially exposed to UK counterparties compared with their total exposure to loans and advances (Figure 7).

Figure 7: UK-related exposures and liabilities (of selected positions, in EUR billion), by country, June 2019 versus June 2020
 Source: Supervisory reporting data.



^[32] See the EBA's statement from 9 November 2020 on financial institutions of the need for financial institutions' readiness in view of the Brexit transition period ending.

The preparations of financial institutions should factor in a situation in which no relevant decisions on the UK regulatory regime being equivalent to the relevant EU regulations have been made by the end of the transition period. In particular, in banking, in the absence of an equivalence decision with respect to the CRR,

the prudential treatment of the EU banks' exposures to the UK sovereign will change. The EBA estimates that, in the scenario in which there is no equivalence decision, and a change in risk weights for UK sovereign exposures, the impact on the CET1 ratio of the EU banks appears to be very limited ⁽³³⁾.

⁽³³⁾ This analysis is based on a sample of 46 banks.



2. Asset side

2.1. Assets: volume and composition

Asset volumes have increased considerably and have been driven by cash balances and lending

In June 2020, EU banks reported around EUR 26 trillion of total assets, up from EUR 24.2 trillion a year before (+7% YoY). The increase was concentrated in the first half of this year, when total assets grew by 10% mostly due to cash balances. They increased by around EUR 960 billion (+50%) YoY and more than EUR 1 trillion (+57%) in the first half of the year due to the implementation of accommodative monetary policies introduced by various central banks (see Box 1 in Chapter 1).

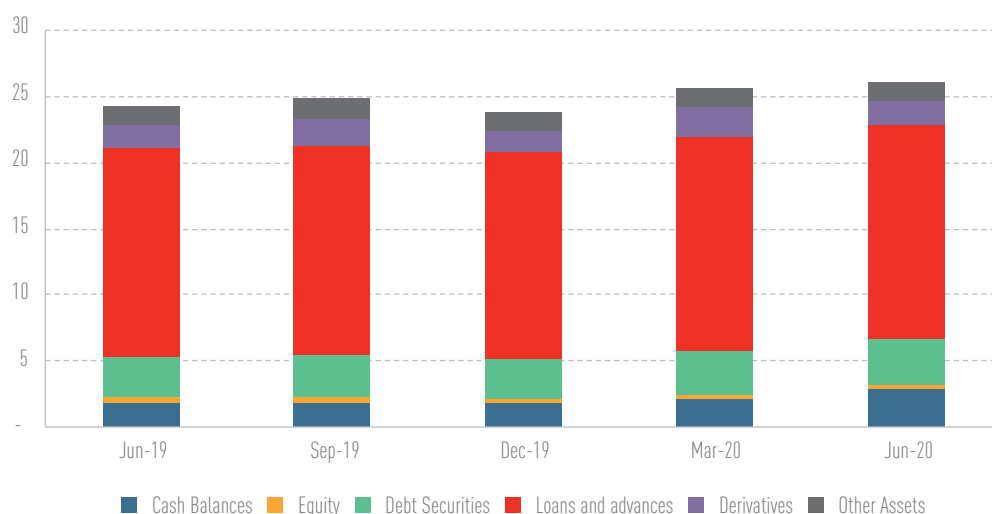
Loans and advances, having increased by around EUR 500 billion compared with the previous year (+3%), also contributed to the surge in total assets. This was solely achieved during the course of this year and especially during the first quarter. Although the drivers were different, the growth in loans and advances was roughly in line with the past 2 years^[34]. Amid the outbreak of the

COVID-19 crisis, borrowers made use of the loan commitments available to them to secure liquidity and operational continuity in an environment of very high uncertainty. Subsequently, during the second quarter of this year, loans and advances remained stable at around EUR 16 trillion, as the loan commitments were presumably replaced by loans backed by government guarantees.

Debt securities (+EUR 360 billion) and derivatives (+EUR 230 billion) have reported the second highest levels of relative growth, at around 12% and 13%, respectively, since June 2019. This increase might also be linked to EU banks transferring assets from affiliated UK entities to EU entities, as preparatory work for the end of the transition period of the United Kingdom leaving the EU (see Box 2 in Chapter 1)^[35].

The asset composition has remained roughly stable over the past year, in spite of the substantial increase in cash balances. In Q2 2020, loans and advances accounted for the largest share of total assets (62%), followed by debt securities (13%) and cash balances (11%), with the last item having increased by 3 percentage points (p.p.) (Figure 8).

Figure 8: Trend in asset composition (EUR trillion), June 2019 to June 2020
Source: Supervisory reporting data.



[34] See EBA's Risk Assessment Report 2019.

[35] The effect would similarly apply for loan exposures. Bloomberg, for instance, reported in October 2020 that financial service firms moved around GBP 1.2 trillion of assets from the United Kingdom to the EU.

With regard to the accounting categories, the distribution of financial assets among portfolios has remained fairly stable. More than 75% of banks' financial assets were measured at amortised cost, 19% were measured at fair value through profit and loss (P&L), and 6% were measured at fair value through other comprehensive income. Of the last two measures, level 2 and level 3 financial assets represented 64.5% and 3.7%, respectively, of fair-valued financial assets ^[36].

The increase in loans and advances was mainly driven by SME lending

In June 2020, household exposures accounted for the largest share of total loans and advances (35%), followed by lending to NFCs (32%). Central banks' share of loans and advances have seen the largest increase, reflecting accommodative monetary policy measures as well as banks' need to secure liquidity in a highly uncertain environment (Figure 9). Most countries show an increase in loans and advances mainly driven by the rise in SME lending during the first half of 2020 (Figure 10).

Figure 9: Distribution of loans and advances (including cash balances at central banks) by segments as of June 2019 (inner circle) and June 2020 (outer circle)
Source: Supervisory reporting data.

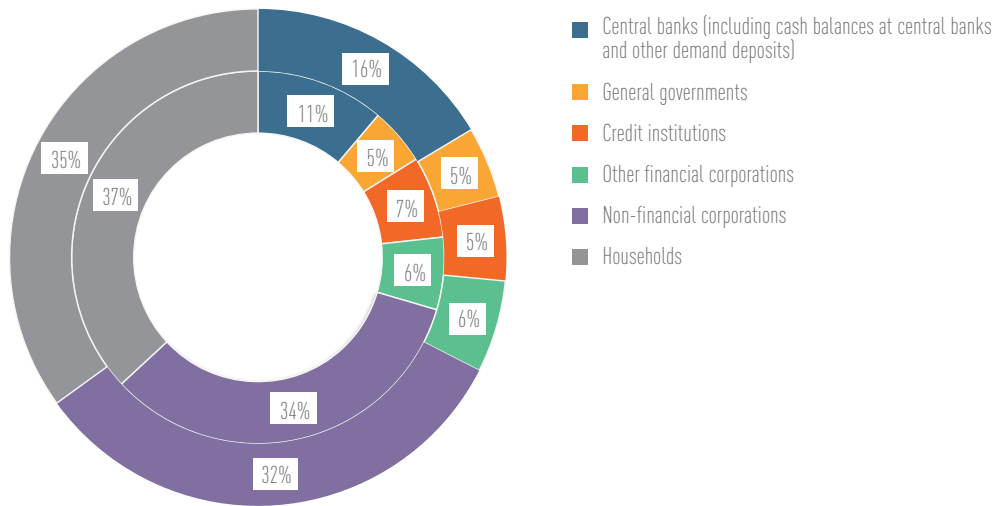
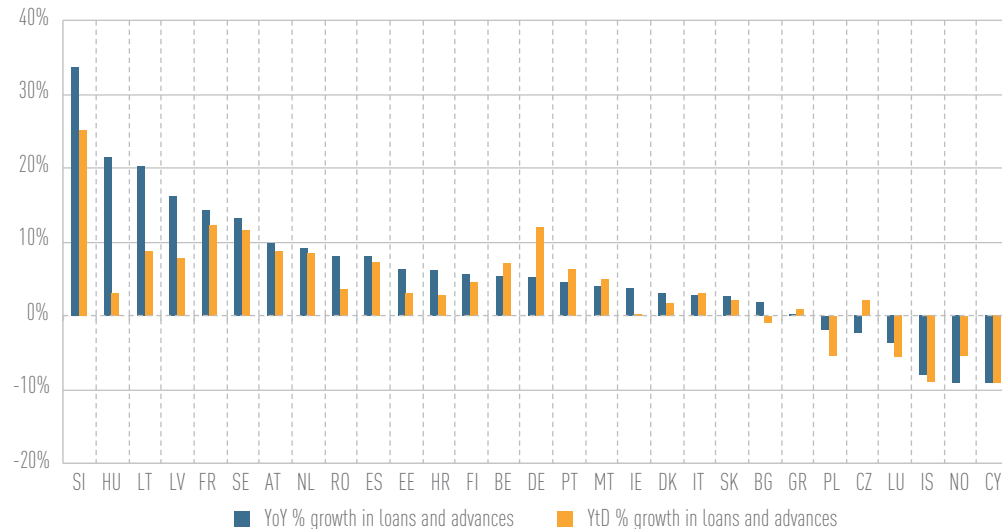


Figure 10: Growth in loans and advances (including cash balances at central banks) by country, June 2019 to June 2020 ^[37]
Source: Supervisory reporting data.



^[36] For a further analysis of this topic, see the EBA's Risk Assessment Reports from previous years, the EBA's Risk Dashboard and the European Systemic Risk Board's report on macroprudential implications of financial instruments in levels 2 and 3 for accounting purposes.

^[37] Trends in loan volumes are also affected by changes in exchange rates. This applies in particular for countries outside the euro area, as the data is translated into Euro, but also for any exposures denominated in foreign currencies.

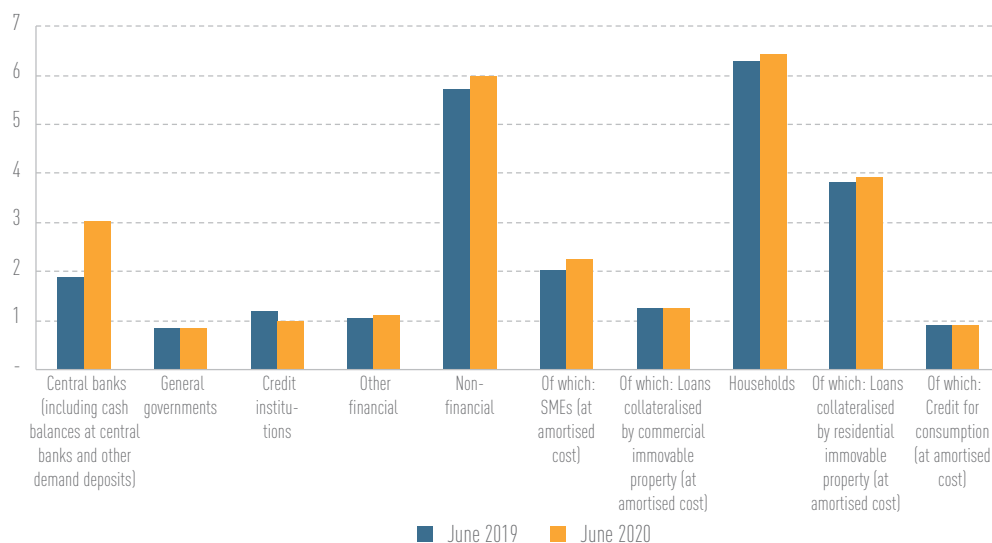
The volume of household lending at amortised cost increased by 2.6% during the past year, not least supported by an increase in mortgage lending (2.6% YoY). However, when looking at the most recent two quarters only, growth in household lending, including mortgages, was muted. The ECB lending survey similarly confirms that the demand for mortgages declined, especially during the second quarter of the year, although it rebounded in the third quarter while credit standards for loans to households for house purchase tightened further ^[38].

The EBA 2019 risk assessment report and the EBA thematic note on consumer lending stressed the considerable growth in the consumer credit segment during previous years ^[39]. This was favoured by benign macroeconomic conditions and banks' search for yield behaviour. This trend continued until December 2019, as consumer credit exposures increased by around 8% during 2019. However, this segment has been particularly hit by the COVID-19 crisis, and exposures decreased by

around 3.7% during the first half of this year. This is, again, confirmed by the ECB lending survey, which shows that credit standards and terms and conditions for consumer credit tightened considerably. At the same time, rejection rates for consumer credit applications were at their highest level mainly due to the deteriorating income and employment situation. In this context, demand for consumer credit reached a record low in the second quarter but increased slightly in the third quarter ^[40].

In comparison with 2019, EU banks also reported a considerable increase in NFC exposures at amortised cost of around 5% driven by the increase in SME lending (+EUR 210 billion, +10%), which was not least supported by the introduction of PGS in the first half of 2020 ^[41]. Part of the increase might, in some cases, also be explained by moratoria on loan repayments, which preserve the balance of the loan and might add the accrued interest to this balance (Figure 12).

Figure 11: Evolution of loans and advances by segment (EUR trillion), June 2019 and June 2020
Source: Supervisory reporting data.



^[38] See the ECB's euro area bank lending survey, October 2020.

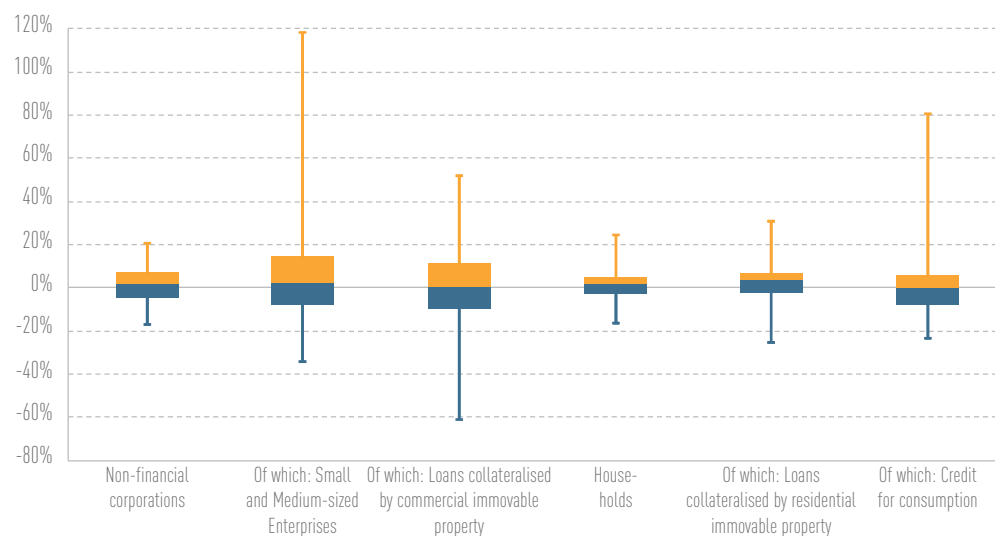
^[39] See the EBA's risk assessment report 2019 and the EBA's thematic note on consumer lending, published in March 2020.

^[40] See the ECB's euro area bank lending survey, October 2020.

^[41] See the EBA's overview of public guarantee schemes issued in response to the COVID-19 pandemic.

Figure 12: Dispersion of YoY growth rates of loans and advances at amortised cost by each sub-segment, June 2019 to June 2020

Source: Supervisory reporting data



At country level, 11 countries reported at least 10% growth in the SME segment, more than any other sub-segment. However, dispersion of SME lending growth rates is quite wide across banks. This might be potentially explained by the differences in the PGS offered by each country, in terms of both the general scheme envelope and the percentage of the exposure covered by the guarantee offered, or the composition of banks' exposures to various sectors.

Banks also reported an increase of around 1.5% YoY in exposures to large corporates due to the dynamics in the first half of 2020 (+2.5%). This rise was unevenly split between the two quarters, with a 4.5% increase in large corporate lending in the first quarter, when uncertainty was at its highest and capital markets were hard to access. In this context, large corporates made use of their committed credit lines to meet potential emergency liquidity needs. As corporates were able to access capital markets again, parts of the credit lines were repaid, leading to a 1.9% decrease in lending volumes in the second quarter.

The increase in NFC lending is also reflected in the credit standards that remained largely unchanged, and, in contrast to households, the rejection rate for NFC loans decreased while demand for loans surged further^[42]. However, during the third quarter of 2020,

demand for corporate loans normalised and credit standards tightened^[43].

Sectors affected by COVID-19 make use of support measures

During the second quarter of 2020, banks significantly increased their loan exposures to the NFC sectors that were the most affected by COVID-19-related confinement measures. These include accommodation and food services industries, arts and entertainment, education, and transport and storage. The increase in outstanding loans was not least supported by the introduction of PGS, as the strongest growing sectors were also those that made more use of these support measures^[44].

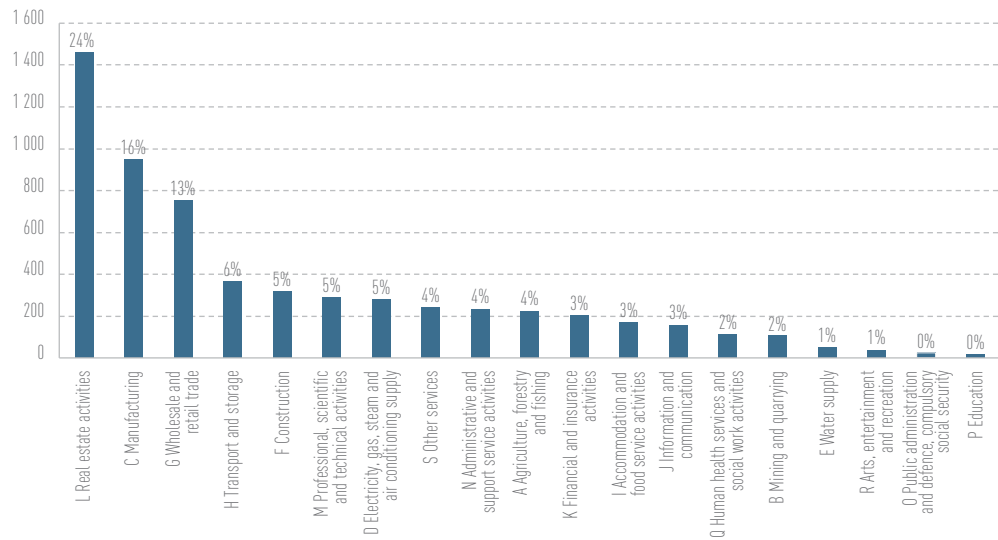
With regard to the mix of NFC exposures by NACE codes (nomenclature statistique des activités économiques), the highest exposure by sector was to real estate activities (around 24% of total NFCs loans, EUR 1.46 trillion). This was followed by manufacturing (16%, EUR 0.95 trillion) and wholesale and retail trade (13%, EUR 0.75 trillion). Exposures to sectors that were particularly affected by the pandemic were lower (Figure 13).

^[43] See the ECB's euro area bank lending survey, October 2020

^[42] See the ECB's euro area bank lending survey, July 2020.

^[44] See the EBA's thematic note on moratoria and government guarantees.

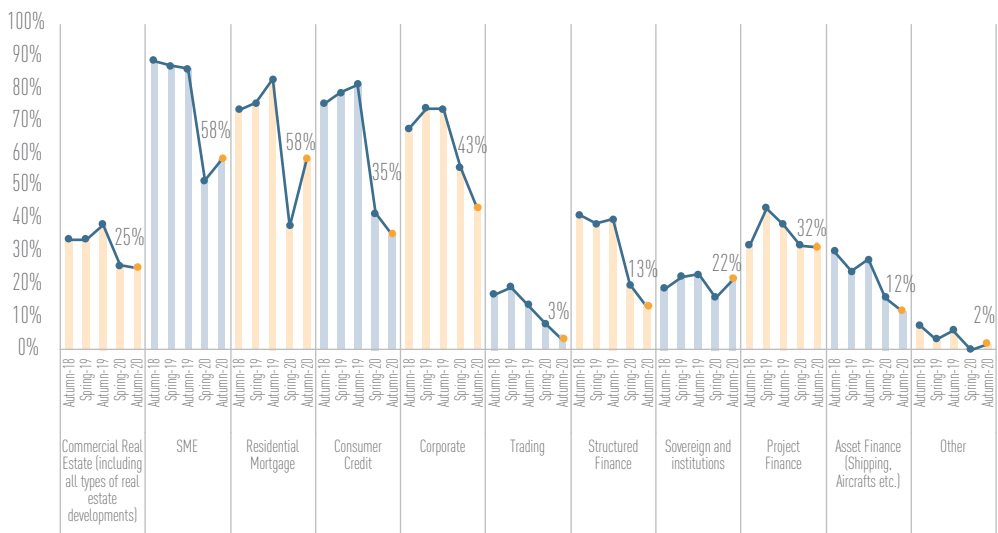
Figure 13: Distribution of NFC exposures by industry (NACE code) (EUR billion), June 2020
 Source: Supervisory reporting data.



Looking forward to the next 12 months, RAQ results show that banks are particularly reluctant to extend new loans, especially in the corporate, consumer credit and commercial real estate (CRE) segments. However, compared with earlier this year, this reluctance has somewhat eased for SMEs and residential mortgages portfolios. Banks in peripheral

EU/EEA countries plan to increase their exposures to SMEs and corporates, whereas Nordic countries and “core” EU/EEA countries plan to increase their residential mortgage exposure. On the contrary, peripheral countries overwhelmingly indicated that they are planning to reduce their exposures to the CRE segment (Figure 14).

Figure 14: RAQ results – Which portfolios do you plan to increase in volume during the next 12 months?
 Source: EBA RAQ for banks.



Sovereign-bank nexus on the rise

In June 2020, the total gross carrying amount of sovereign exposures stood at EUR 3.4 trillion, an increase of around EUR 290 billion compared with 1 year ago or an increase of around 9%. Compared with December 2019, the increase was even more pronounced (11%). In the first two quarters of 2020, banks in France reported the largest increase in sovereign exposures (EUR 172 billion or 19%), followed by Italy (EUR 57 billion or 14%) and Germany (EUR 45 billion or 9%).

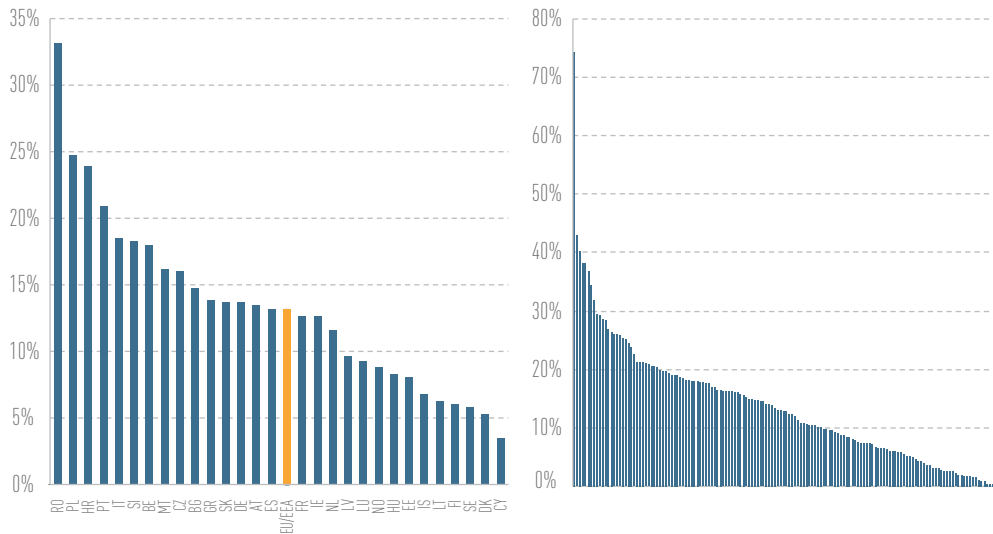
The increase in sovereign holdings might be related to the stabilising role of banks, as they tend to meet the growing needs of sovereign financing during periods of increased uncertainty and stress in the economy. In addition, sovereign exposures are safe assets to which banks can allocate the large increase in liquidity positions derived from

monetary policy measures. In June 2020, 49% of EU banks' sovereign exposures was to their respective home countries, and close to 78% of their total sovereign exposures was to an EU/EEA country, broadly the same as in June 2019.

Banks have not only increased their exposures to sovereign bonds but also extended new loans to NFCs secured by government guarantees, which are not included in the above data. In addition, in recent years – in the context of de-risking in the banking sector – some countries have also deployed asset protection schemes or private loss-sharing schemes. In June 2020, sovereign exposures were close to 13% of their total assets. Banks in central and eastern European (CEE) countries and southern Europe generally reported a higher ratio of sovereign exposures to total assets than, for instance, their peers in the Nordic countries (Figure 15).

Figure 15: Sovereign exposures as a percentage of total assets by country (left) and by bank (right), June 2020

Source: Supervisory reporting data.



Although the autumn 2020 RAQ results show that, going forward, only around 20% of the banks plan to increase their sovereign expo-

sure, these developments have further intensified the sovereign-bank nexus in the EU (Figure 14).

Box 3: Banks’ climate risk-related exposures

Managing risks stemming from environmental, social and governance (ESG) factors can be extremely challenging. In this regard, given the significant role that the financial sector is expected to play in supporting the transition towards a low-carbon economy, climate-related risks are a source of potential financial risks for institutions.

As announced in the EBA action plan on sustainable finance, in 2020 the EBA launched a pilot sensitivity exercise on climate risk with a sample of volunteer banks ⁽⁴⁵⁾. Since climate risk stress test frameworks are still developing, the pilot sensitivity analysis was designed as a learning exercise for both the EBA and participating banks ⁽⁴⁶⁾. The exercise focuses only on transition risk, and its main objectives are (i) to explore data and methodological challenges related to climate risk assessment; (ii) to test banks’ readiness to apply the EU green taxonomy for classifying their own exposures; and (iii) to provide a preliminary comparable assessment on banks exposures in respect to climate risk, based on different data classifications ⁽⁴⁷⁾. Over-

all, this exercise will represent the starting point for a more comprehensive discussion of how to embed climate risk in a stress test framework in the coming years. The findings of this box are based on a subset of 29 EU banks and are preliminary

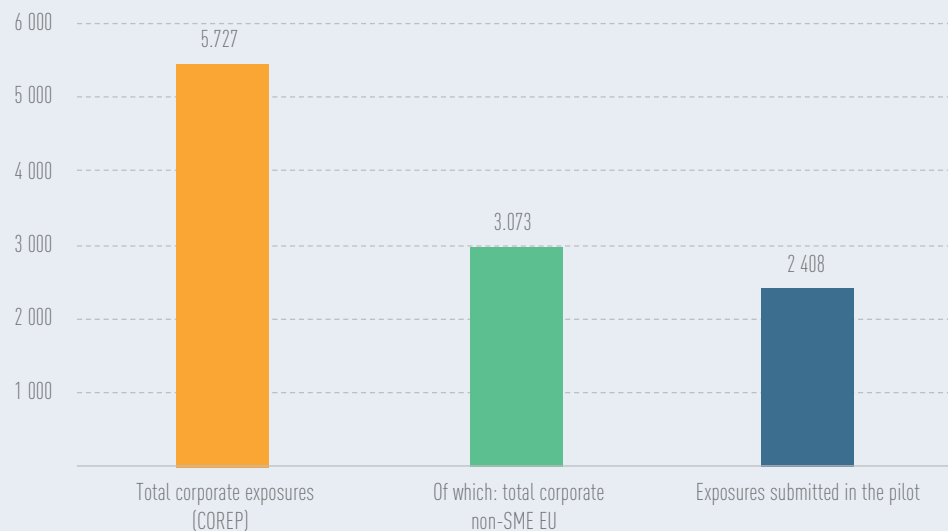
Data, scope and sample characteristics

The data analysed in the pilot exercise covers non-SME corporate exposures to non-financial obligors domiciled in EU countries under both the internal ratings based (IRB) approach and the standardised approach. These data were provided at obligor level as of December 2019. Participating banks were asked to provide the original exposure value, risk parameters, risk weighted assets and information on the sector (NACE Rev. 2 level 4) for each obligor in the scope ⁽⁴⁸⁾.

The total original exposure submitted by banks amounts to EUR 2.4 trillion. This represents 42% of total corporate exposure (EUR 5.7 trillion) and 78% of non-SME corporate exposures to obligors domiciled in EU countries (EUR 3.0 trillion) ⁽⁴⁹⁾, as reported by participating banks in common reporting (prudential supervisory reporting, COREP) (Figure 16).

Figure 16: Total exposure collected in the pilot exercise and a comparison with COREP data (data from participating banks in EUR billion) in December 2019

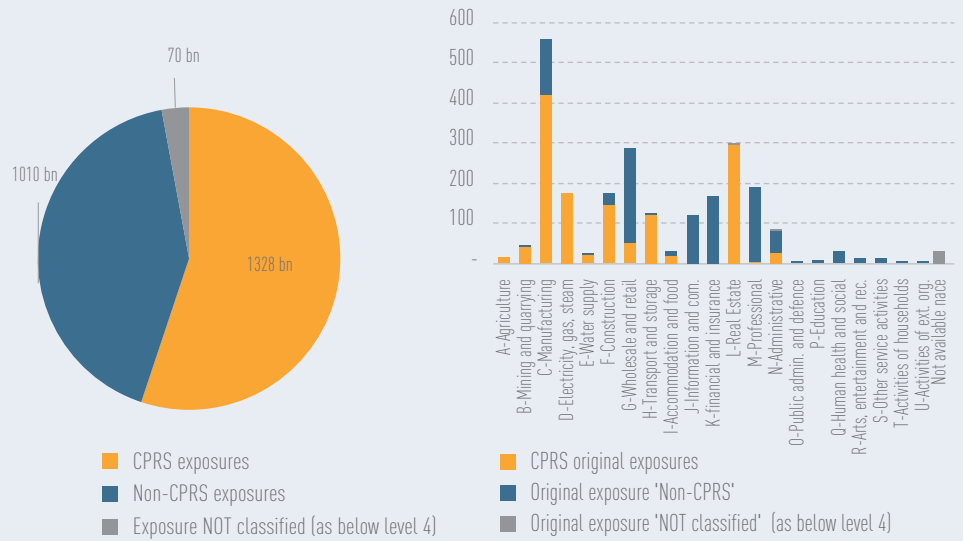
Source: 2020 EBA analysis of climate risk.



⁽⁴⁵⁾ See the EBA’s action plan on sustainable finance.
⁽⁴⁶⁾ The EBA launched a pilot sensitivity exercise on climate risk in May 2020, asking banks to join it on a best efforts basis. For the list of 29 banks from 10 countries see Annex I.
⁽⁴⁷⁾ Transition risks (in the context of climate risk) are defined as ‘risks to the company that arise from the transition to a low-carbon and climate-resilient economy’. See the European Commission’s ‘Guidelines on non-financial reporting: Supplement on reporting climate-related information’.

⁽⁴⁸⁾ In this exercise, we have not checked the consistency of the obligor NACE 2 level 4 codes among banks. This means that different banks may have used different NACE 2 level 4 codes to classify the same obligor.
⁽⁴⁹⁾ The only financials in the NACE level 4 sectors within the scope of this exercise are activities of holding companies (64.20); other monetary intermediation (64.19); and trusts, funds and similar financial entities (64.30). The non-SME corporate exposures to obligors domiciled in EU countries reported in COREP also include exposures to financials.

Figure 17: CPRS classification at EU level (left) and CPRS classification by NACE 2 level 1 (right), (in EUR billion) in December 2019
 Source: 2020 EBA analysis of climate risk.



Classification approaches

A sector-based method

Creating a harmonised classification of environmentally sustainable activities is a priority for the European Commission. The introduction of the EU green taxonomy, which provides a universal and harmonised definition of green activities, is the first step towards achieving this goal. However, a standard definition of brown activities would be key when it comes to assessing transition risk.

So far, some of the initiatives run by competent authorities and financial institutions to measure transition risk rely on sector-based approaches to classify climate-relevant exposures, for example employing the NACE 2 classification. The limitation of such a classification method is that it does not capture the different activities that an obligor might be involved in, since it only classifies each obligor by its main activity.

In this analysis, the classification approach introduced by Battiston et al. (2017) is applied (50). It consists of remapping all sub-sectors

at NACE2 level 4-digit into new climate policy-relevant sectors (CPRS), by combining criteria, including carbon emissions, the role of the sector in the supply chain and the existence of traditional climate-related policies for the sectors (51). Exposures to CPRS are defined as those exposures that may be potentially affected by transition risk. Overall, almost 98% of the EUR 2.4 trillion exposures submitted by banks are classified according to the CPRS method.

A total exposure of EUR 1.3 trillion (55% of the total) is allocated to CPRS, and a total exposure of EUR 1 trillion (42% of the total) is allocated to non-CPRS, whereas the residual amount is not classified as it refers to obligors that do not have a NACE 2 level 4 classification (Figure 17).

These data also provide information on the sectors (NACE 2 level 1) in which climate-relevant exposures are more concentrated. The results show that the bulk of climate-relevant exposure can be found in five NACE 2 level 1 sectors – manufacturing (sector C), electricity, gas, steam and air conditioning supply (D), Construction (F), transporting and storage (H) and real estate activities (L) – amounting to almost EUR 1 153 billion.

(50) See Battiston, S., Mandel, A., Monasterolo, I., Schuetze, F. and Visentin, G., 2017, 'A climate stress-test of the EU financial system', *Nature Climate Change*, vol. 7, pp. 283-288. In this exercise, the classification is applied to the original exposure, and not to the exposure value, so that the value adjustments related to the exposure can also be taken into account (e.g. those concerning guarantees and credit mitigation). With regard to exposure value, see column 010 of COREP 09.01 and 09.02 for the IRB approach and the standardised approach, respectively. The amount refers to the exposure net of value adjustments after taking into account outflows and inflows due to credit risk mitigation (CRM) techniques with substitution effects on the exposures.

(51) Some NACE level 1 sectors, such as agriculture (A), electricity (D) and real estate (L), are entirely considered CPRS without any additional breakdown at NACE level 4. See also Battiston et al. (2017), who reclassify the NACE 2 codes as 9 main categories and 26 sub-categories. The main categories are (1) fossil energy, (2) utility, (3) energy-intensive, (4) buildings, (5) transport, (6) agriculture, (7) finance, (8) scientific research and development and (9) others.

Among these sectors the total exposure that is not relevant from a climate policy perspective amounts only to EUR 170 billion (7% of the total exposures submitted by banks). Exposures to other NACE 2 level 1 sectors, such as mining and quarrying (B), information and communication (J), and wholesale and retail trade (G), which all incorporate climate-relevant sub-sectors, are less significant.

In addition, exposures to those sectors that the approach considers to be entirely not climate relevant (from sectors O to U) represent only 2% of total exposures submitted by banks. Finally, banks show total original exposures towards financial and insurance activities (K) of EUR 167 billion (49). These corporate loans are provided

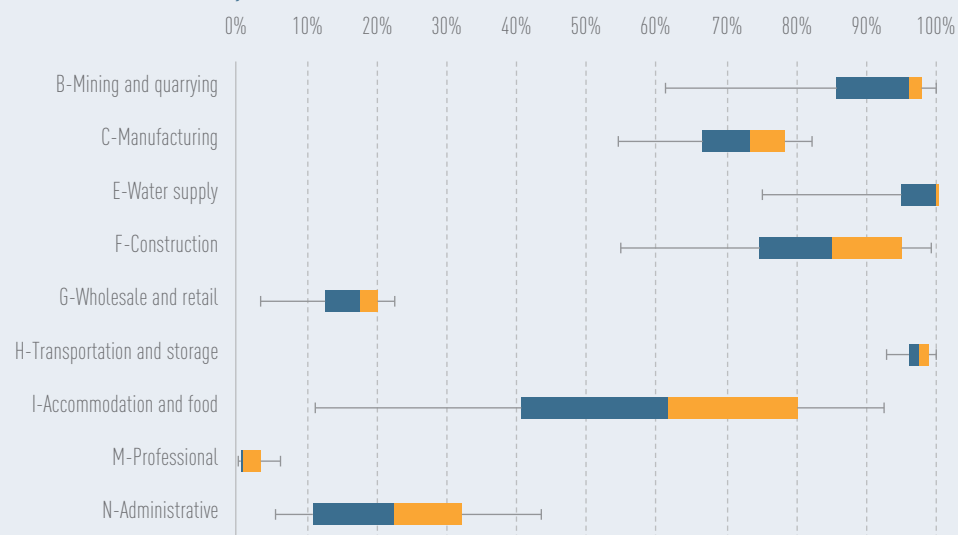
directly to the holding company without a specific link to the sub-sector in which they are used.

Therefore, although some exposures are classified as 'non CPRS', in this particular case more detailed information on the related activity would be needed to overcome the limitations of the CPRS approach and run a more accurate assessment.

Apart from those sectors (A, D, L) that are considered entirely climate relevant according to the CPRS approach, half of the sample has a share of CPRS-related exposures to manufacturing (C), construction (F), transporting and storage (H), water supply (E) and mining and quarrying (B) (Figure 18) that is greater than 70%.

Figure 18: Share of CPRS-related exposures over total exposures by NACE 2 level 1 – banks distribution (10th, 25th, 50th, 75th and 90th percentiles) in December 2019

Source: 2020 EBA analysis of climate risk.



An emission-based method

To complement the CPRS analysis, an alternative approach based on greenhouse gas (GHG) emissions is applied (52). As the disclosure of carbon emissions is still developing, the availability of these data represents a challenge, especially for medium-sized/small companies. As a result, only 30% of the total exposures within the scope are matched directly with individual GHG data, whereas 60% of the exposures are assigned to obligors by using average GHG emission intensity at NACE 2 level 4 (53).

Banks' exposures are classified in relation to GHG emission intensity ranges, which are defined based on the distribution of individual companies' GHG emission data (54). Almost EUR 816 billion of original exposures is assigned to obligors with medium/high, high or very high CO₂ emission intensity (Figure 19).

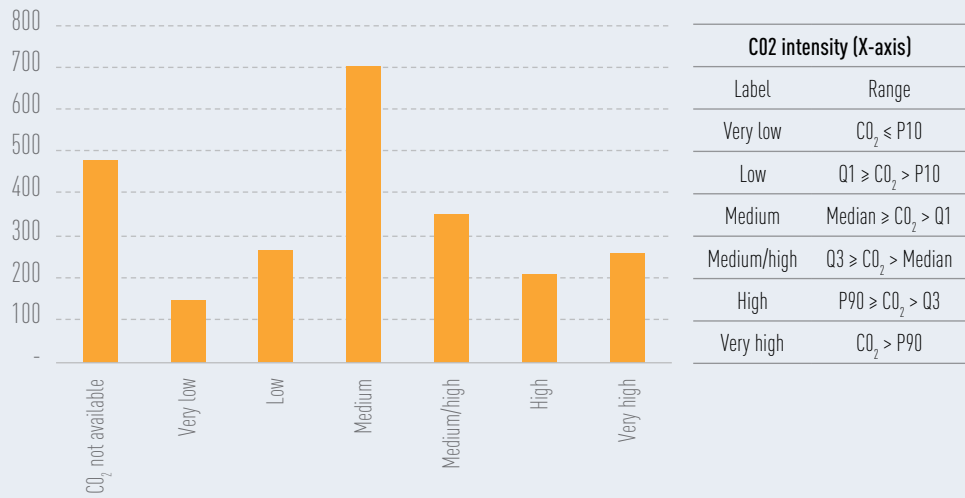
(52) The source of the CO₂ emission intensity is Trucost (S&P Global).

(53) This is computed by using individual GHG emission data of almost 8 500 companies located in developed countries.

(54) Defined in terms of annual consolidated revenues in millions of US dollars (CO₂ emission/USD million). Total emissions are defined as 'direct emissions' (corresponding to the GHG Protocol's scope 1 emissions and any other emissions derived from a wider range of GHGs that are relevant to a company's operations) and 'first-tier indirect emissions', which are defined as GHG Protocol scope 2 emissions, plus the company's first-tier upstream supply chain – their direct suppliers. The latter also includes scope 3 emissions from truck, rail and air transport sources (which belong to 'Transport and distribution' under the GHG Protocol's 'Corporate Value Chain (scope 3) Standard').

Figure 19: Original exposures to CO₂ emission intensity ranges (ranges computed based on percentiles, EUR billion)

Sources: 2020 EBA analysis of climate risk and Trucost, EBA calculations.



Next steps

The EBA will perform a further analysis of the classification approaches and aims to publish a final report on the pilot exercise in 2021. This report will also include a sensitivity analysis of the risk parameters based on the CPRS and emission-based classification. Moreover, it will also show findings from the

ongoing data collection related to the EU green taxonomy classification, which is also run on a best efforts basis by participating banks. The main objective of this additional step is to test banks’ readiness to apply the EU green taxonomy and highlight the main challenges behind its application. In addition, it will also provide a first estimate of the greenness of the EU banking sector.

Box 4: Leveraged finance – evolution of the main leveraged loan indices and a summary of EU banks exposures

The ‘leveraged finance’ segment involves lending to corporate borrowers with high levels of debt, low credit ratings (usually below investment grade) or high spreads [55]. It comprises both leveraged loans and high-yield bonds, as well as collateralised loan obligations (CLOs), i.e. securitisation vehicles whose underlying assets are mainly leveraged loans.

The features of leveraged finance allow banks to gain exposure to higher yields in a low interest rate environment. In addition, originating institutions obtain significant fees for arranging these facilities and distributing them to other investors.

In 2019, the direct exposures to the leveraged finance of the largest EU banks amounted to EUR 410 billion, with most of them (EUR 383 billion) being in the form of

leveraged loans. They represented around 2.5% of total assets and 50% of CET1 capital of these institutions [56].

Beyond the risk inherent to the features that define leveraged finance, the riskiness of these exposures has increased substantially over the past few years due to a relaxation of lending standards. In this regard, over the past few years debt-to-earnings before interest, taxes, depreciation and amortisation ratios have increased, whereas covenant-lite loans, i.e. loans with few or no clauses preventing borrowers from taking actions that may negatively affect their ability to honour their debts, have become a market standard [57]. Therefore, under current extraordinary economic challenges (see Chapter 1), default rates could become higher and the number of recoveries could become lower than in previous downturns.

[55] For definitions of leveraged finance, see for example the ECB’s Guidance on leveraged transactions or S&P Market Intelligence’s Leverage Loan Primer.

[56] See the EBA’s thematic note on leveraged finance. The analysis was performed in 2019 for a sample of 26 banks, representing most of the largest banks in the EU.

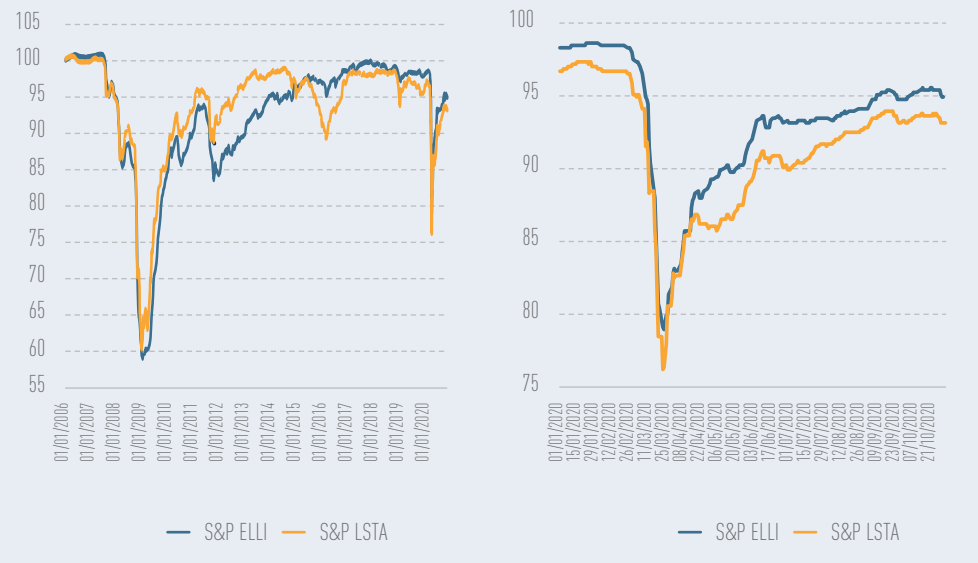
[57] ECB-Banking Supervision, 2019, ‘Keeping an eye on bank’s leveraged lending’, 15 May.

With regard to liquidity risk, the risks are that banks may face material drawdowns on the revolving credit facilities granted to leveraged borrowers. Moreover, if investor interest – in particular from CLOs – vanishes, banks may be left holding leveraged loans that they intended to securitise or sell ('hung deals').

In this context, the main leveraged loan indices suffered a sharp fall in March, while new issuance came to a temporary halt. Although prices have recovered most of the lost ground and primary market activity – especially in the high-yield bond segment – has resumed, defaults may keep increasing as the weaknesses of the borrowers most affected by the pandemic are revealed (Figure 20).

Figure 20: The evolution of Standard & Poor's (S&P) European Leveraged Loan Index (ELLI) and Loan Syndication and Trading Association (LSTA) Index since 2006 (left) and in 2020 (right)

Source: Bloomberg.



2.2. Asset-quality trends

Confinement measures to limit the spread of COVID-19 have led to a contraction of economic activity in all Member States (see Chapter 1). The unprecedented relief measures provided in a coordinated manner across Europe (see Box 1 in Chapter 1) have offered borrowers breathing space. However, supervisory data already show signs of deterioration in asset quality, such as elevated cost of risk and provisions on performing loans (see Chapter 5 on cost of risk), increasing volumes of forborne loans, and a migration of assets to stage 2 under IFRS 9. Although NPLs and stage 3 loans are still stable, a substantial deterioration in asset quality is expected in the quarters to come ^[58].

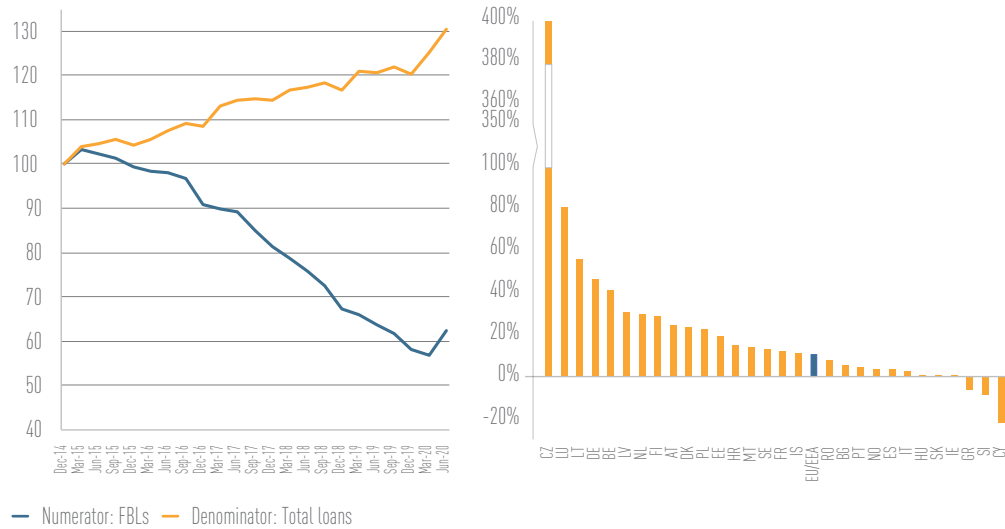
COVID-19 effects on the performance of loan portfolios are already visible in forborne loans and stage 2 assets

The volume of forborne loans (FBLs) increased by around 10% in the second quarter and stood at just above EUR 360 billion. The increase was solely driven by forborne performing loans, which increased from around EUR 125 billion in March 2019 to almost EUR 155 billion in June 2020 (+21%). In June 2020, the FBL ratio stood at 2%, up from 1.9% the previous quarter but still down from 2.1% in June 2019. The change in FBLs during the past quarter varied significantly among countries, ranging from an increase of 400% in Czechia and an increase of 80% in Luxembourg to a 22% fall in Cyprus (Figure 21). In some cases, the significant increase in FBLs might be due to the moratoria on loan repayments not being compliant with the EBA's respective guidelines, which might be considered a forbearance measure in the meaning of the CRR (see also Box 5 on moratoria) ^[59].

^[58] For more information on the potential impact of the COVID-19 crisis on asset quality, capital and other aspects, see the EBA's thematic report on the first insights into the COVID-19 impacts – a sensitivity analysis on credit risk impact.

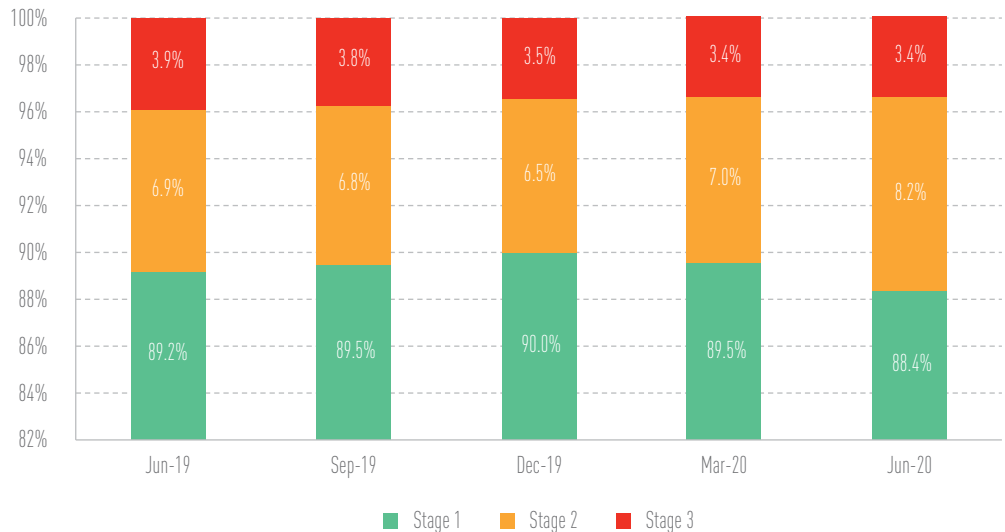
^[59] See Article 47b of the CRR.

Figure 21: FBL and total loans evolution (December 2014 = 100; December 2014-June 2020) and change in FBLs between March 2020 and June 2020 by country
 Source: Supervisory reporting data.



The allocation of loans by IFRS 9 impairment stages provides a forward-looking view on banks' expectation as regards the deterioration in the credit quality of their loan portfolios. Banks have markedly increased the classification of loans in stage 2, with an equivalent decrease in the share of stage 1 loans. In June 2020, EU banks classified 88.4% of their loans and advances recognised at amortised cost into stage 1 (89.2% in June 2019), 8.2% into stage 2 (6.9%) and 3.4% into stage 3 (3.9%). In the second quarter of the year, the total volume of stage 3 loans at amortised cost reached EUR 0.5 trillion (-10% compared with June 2019), whereas stage 2 loans amounted to EUR 1.2 trillion (23% higher than in June 2019) (Figure 22).

Figure 22: Evolution in stage allocation of EU banks of loans and advances at amortised cost over time
 Source: Supervisory reporting data.



The largest shares of stage 3 assets in June 2020 were in Greece (34.2%) and Cyprus (22.4%). Slovakia (9.1 p.p.), Ireland (8.3 p.p.), Iceland (8 p.p.) and Austria (6.4 p.p.) reported the highest increases in allocation of both loans to stage 2 and loans to stage 3 (Figure 23 and Figure 34).

Figure 23: Distribution (%) of loans and advances among stages 2 and 3, by country, June 2019 and June 2020

Source: Supervisory reporting data.

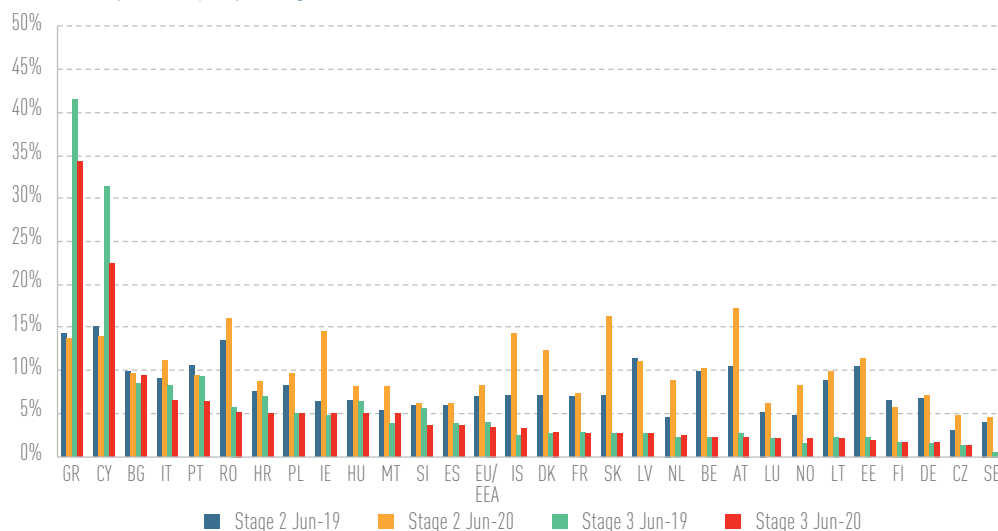
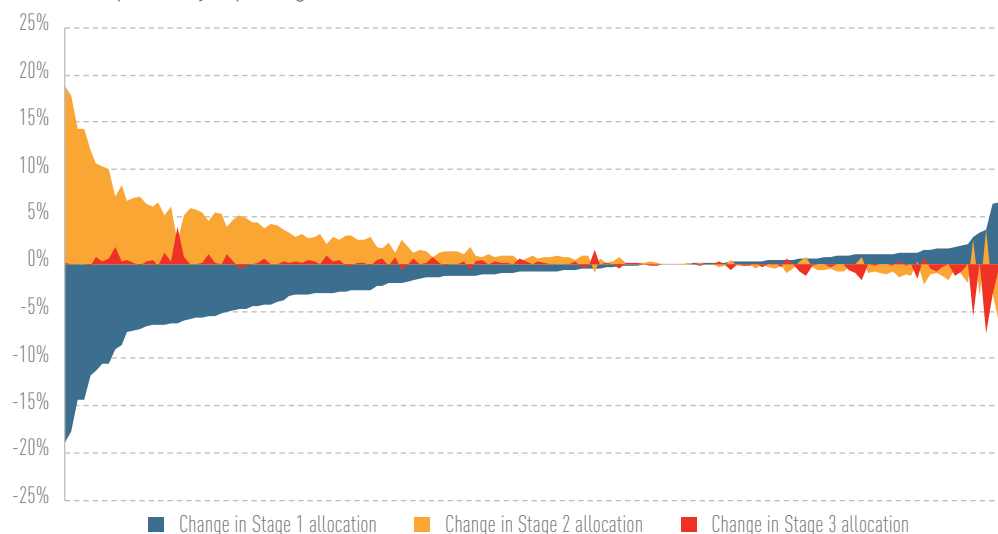


Figure 24: Changes in the allocation of loans by stages by bank (in p.p.), between December 2019 and June 2020

Source: Supervisory reporting data.



Box 5: EBA-compliant moratoria on loan repayments in the banking sector ⁽⁶⁰⁾

According to the EBA guidelines on legislative and non-legislative moratoria, payment moratoria do not automatically trigger classification as forborne or defaulted under distressed restructuring if the moratoria meet the conditions set out in these guidelines ⁽⁶¹⁾.

EU banks reported, in June 2020, around EUR 870 billion of loans with granted EBA-

compliant moratoria on loan repayment, which represents around 7.5% of the total outstanding loans to households and NFCs of the reporting banks ⁽⁶²⁾. The use of moratoria was widely dispersed across countries. For example, Cypriot banks reported that close to 50% of their total loans to NFCs and households were under moratoria on loan repayments. Banks in Hungary and Portugal also reported the extended use of moratoria schemes, as more than 20% of their reported loans to NFCs and households were under moratoria (Figure 25).

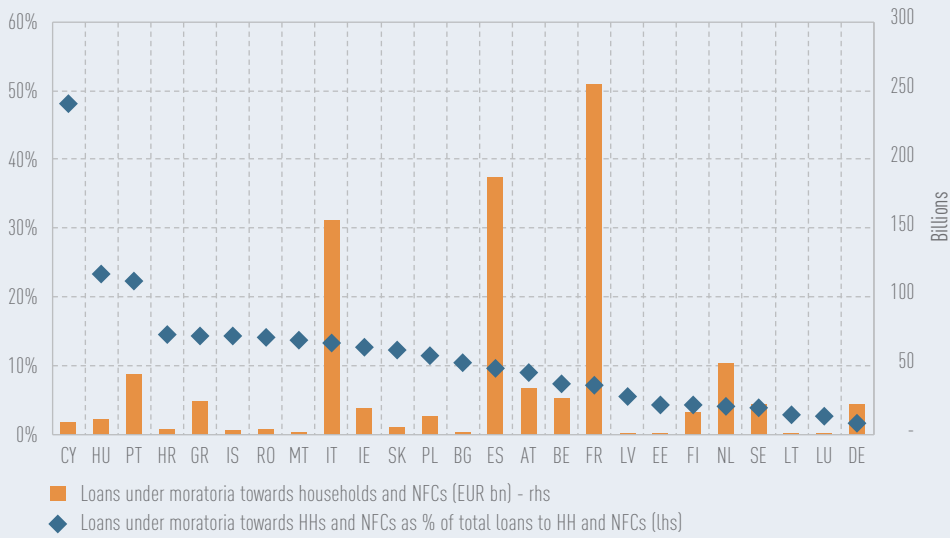
⁽⁶⁰⁾ On this topic, see also the EBA’s thematic note on moratoria and government guarantees.

⁽⁶¹⁾ See EBA Guidelines on legislative and non-legislative moratoria on loan repayments applied in the light of the COVID-19 crisis.

⁽⁶²⁾ The sample of banks in this box is 126 banks (of which 96 are at the highest level of consolidation), representing more than 95% of total loans to households and NFCs in the EBA’s overall sample.

Figure 25: Loans to households and NFCs with granted moratoria on repayment (EUR billion and as a percentage of total loans to households and NFCs, by country, June 2020)

Source: Supervisory reporting data.

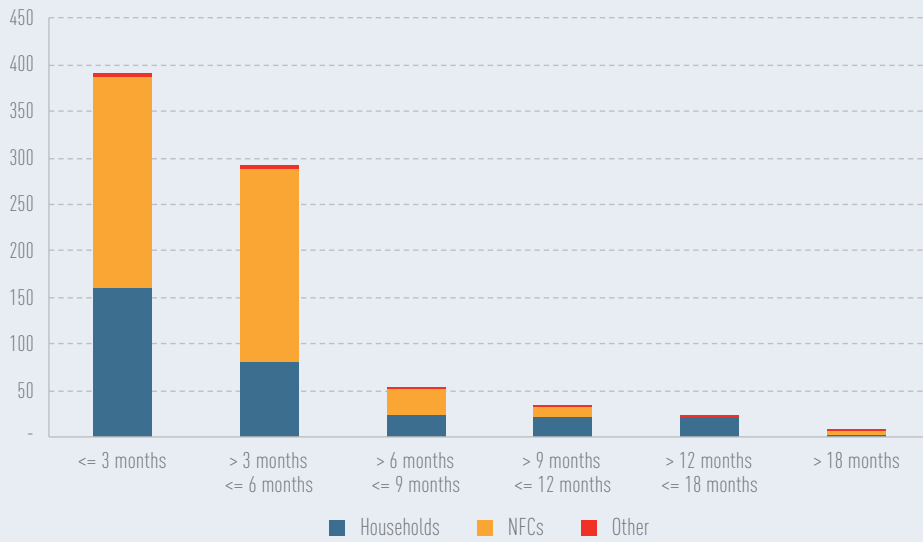


NFC loans under moratoria were around 9%, whereas 6% of household loans had a payment break in June 2020. Around 16% of the SME exposures were granted moratoria – the largest share across all

segments. In June 2020, around 50% of the moratoria had a maturity of less than 3 months, and around 85% will expire before December 2020 (Figure 26).

Figure 26: Distribution of granted moratoria (EUR billion) by residual maturity, June 2020

Source: Supervisory reporting data.



Banks should remain vigilant and continuously assess the asset quality of these exposures. Stage 2 allocation and NPL ratios are key monitoring metrics for assessing potential risks. Around 17% of loans under moratoria were classified as stage 2 loans, which is more than double the share

of stage 2 loans for all loans. The NPL ratio for loans subject to moratoria was 2.5%, which is lower than the EU average (2.9%). This, however, is expected, as many schemes allowed only performing loans to make use of moratoria.

Decreasing trend in NPLs stopped in the past quarter

Although there are early warnings of the deterioration in the asset quality, this is not yet reflected in the NPL ratio. In June 2020, the NPL ratio stood at 2.9%, around 50 bps lower than in June 2019 and 20 bps lower than in December 2019. In June 2020, the total NPL

volume stood at EUR 528 billion, 10% less than 1 year earlier (EUR 581 billion). Following a multi-year period of decreasing NPL volumes, the volume of NPLs increased for the first time, albeit marginally, during the second quarter of 2020 (EUR 4 billion increase). The impact on the NPL ratio was already offset by the comparatively higher growth of total loans (see Chapter 2.1).

Figure 27: Evolution of NPL ratios (%) and NPL volumes (EUR billion) (left) and NPL volumes and total loans (December 2014 = 100) (right)

Source: Supervisory reporting data.

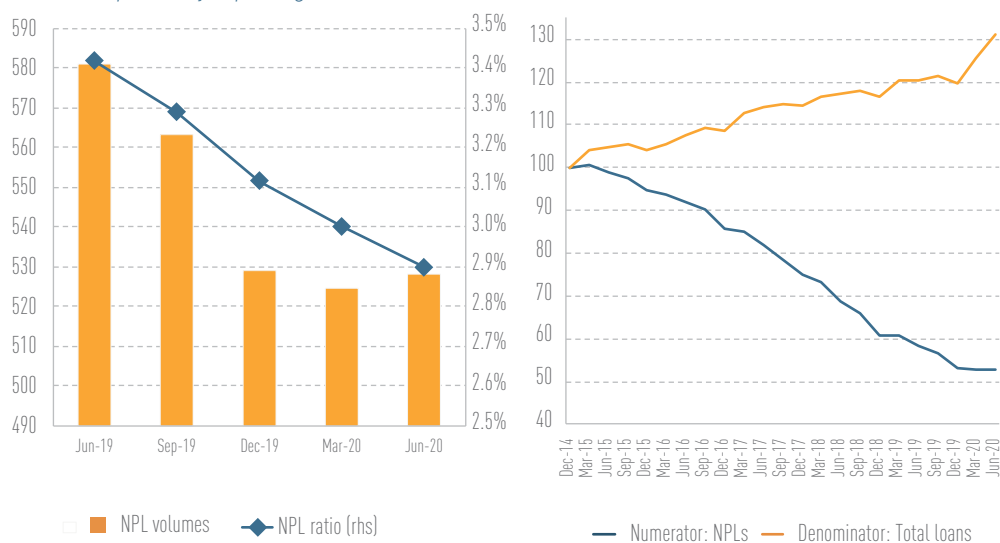
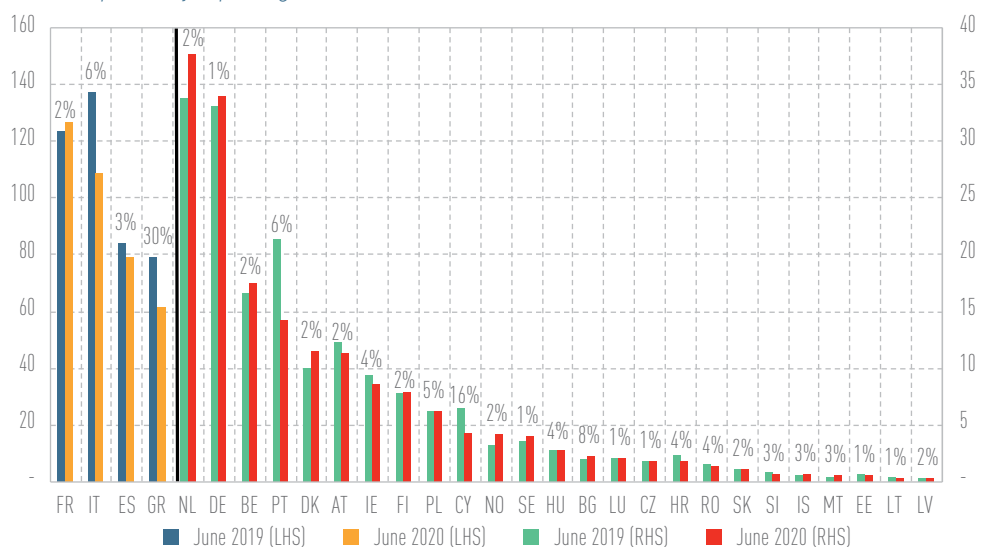


Figure 28: NPL volumes (EUR billion) and NPL ratios (%) in June 2019 and June 2020, by country

Source: Supervisory reporting data.



In June 2020, France reported the highest volume of NPLs (EUR 127 billion), which was slightly up from the previous year. Italy followed with EUR 108 billion, although this was EUR 29 billion less (-20%) than the figure recorded in June 2019. In their efforts to reduce NPLs, banks in Greece and Italy widely relied on nationally deployed securitisation

schemes (Hercules and GACS) to divest legacy loans in NPL secondary markets⁽⁶³⁾.

Greece (30.3%) and Cyprus (15.5%) reported the highest NPL ratios. Although no other country had a double-digit NPL ratio, Bulgaria (7.7%), Italy (6.1%) and Portugal (5.7%) still

⁽⁶³⁾ For example, since 2016 the GACS scheme has contributed EUR 77 billion transactions according to market data/research.

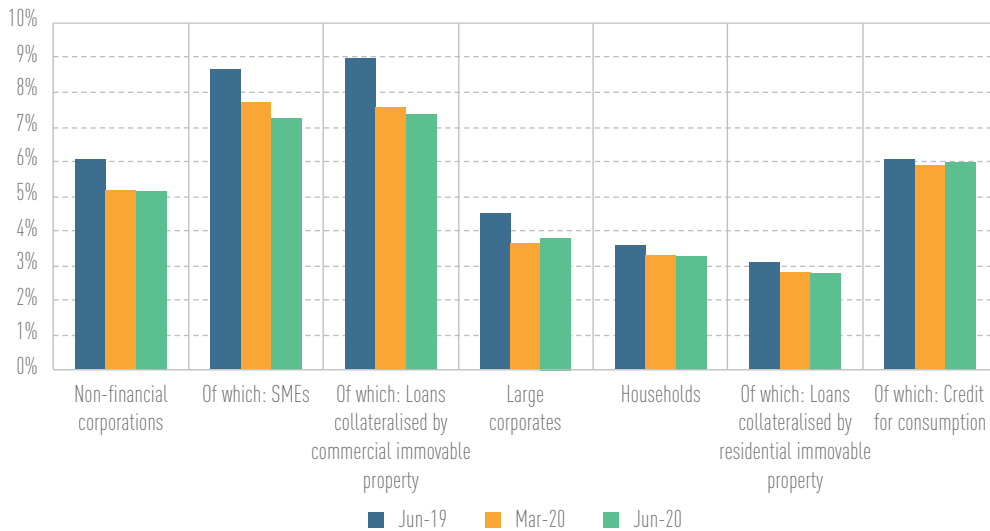
reported relatively high ones. In the EU, all but six countries have reported an improvement in their NPL ratio over the past year. Following the trend in previous years, the largest declines are reported by banks from Greece (-8.9 p.p.), Cyprus (-6.0 p.p.) and Portugal (-3.2 p.p.), mainly due to sales of NPL portfolios.

In June 2020, NFC and household NPLs made up more than 95% of total NPLs and reached EUR 510 billion. The rest of the NPLs report-

ed by EU banks were to sovereigns and financial institutions (around EUR 19 billion). NPL ratios vary significantly across segments, which also reflects the riskiness of the exposures. In June 2020, the EU NPL ratio for NFC loans stood at 5.1%, around 90 bps down from the previous year. The decrease in NPL ratios was more evident for the CRE (7.3% in June 2020 versus 8.9% in June 2019) and the SME (7.2% versus 8.7%) segments. EU banks also reported a decrease in the NPL ratio for households YoY, although this was smaller than that for NFCs. In June 2020, the NPL ratio of the household segment stood at 3.3% – 30 bps lower than in June 2019 – which was flat compared with March 2020 (Figure 29).

Figure 29: EU NPL ratios by segment⁶⁴ (loans at amortised cost ⁶⁵)

Source: Supervisory reporting data.



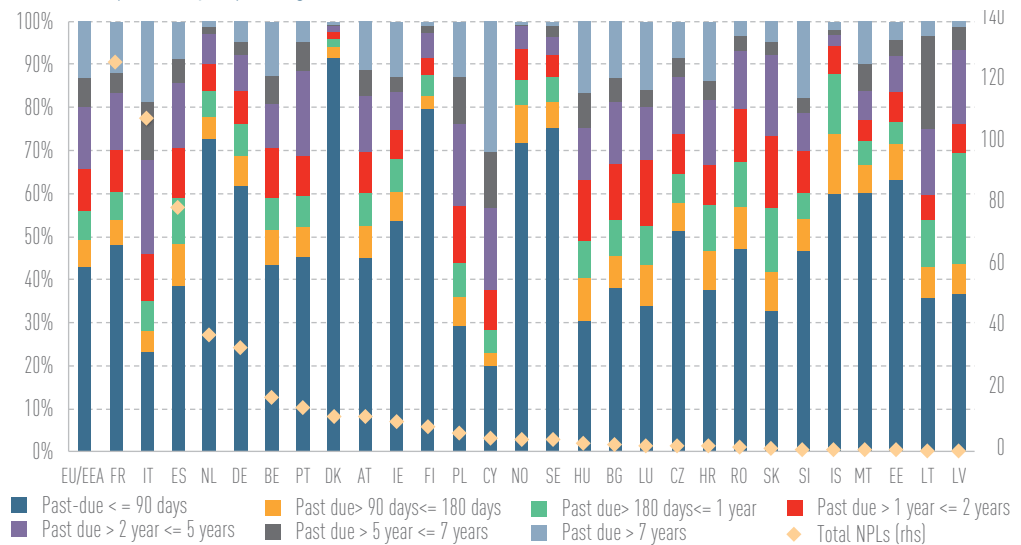
Despite the substantial progress that has been made in dealing with legacy assets across all countries, a significant number of EU banks have not yet managed to repair their balance sheets, and entered the COVID-19 crisis carrying over substantial amounts of legacy non-performing assets. In addition, the NPL vintage profile shows that some banks still face challenges with older

NPLs, which are in general more difficult to tackle. In June 2020, the share of NPLs classified as unlikely to pay and less than 90 days past due was 43%. Around 34% of total NPLs had been past due for at least 2 years, and 13% had been past due for more than 7 years. Cyprus and Greece had close to 30% of their total NPLs past due for more than 7 years, the highest among all countries.

⁶⁴ The volume of large corporate NPLs is calculated as total corporates NPLs - SME NPLs.

⁶⁵ More than 98% of NFC and household NPLs were accounted for at amortised cost.

Figure 30: Distribution of NPL volumes (%) by past-due category and by country, June 2020
 Source: Supervisory reporting data.

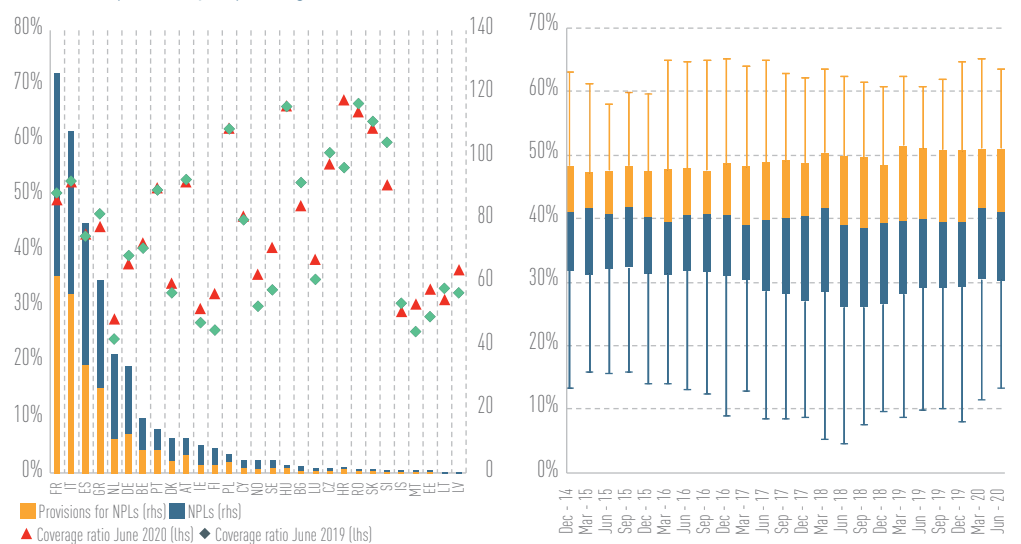


Coverage ratios substantially increased for performing loans

Promptly assessing the credit risk associated with exposures and acknowledging the problematic loans are of utmost importance for prudent NPL management. This goes hand in hand with the provision of expected losses on both non-performing and performing exposures. In June 2020, the aggregated

EU coverage ratio of NPLs stood at 45.5%, marginally lower than a year earlier (46.1%). The dispersion of coverage ratios for NPLs varies considerably among both countries and banks, ranging from 28% in the Netherlands to 67% in Croatia. These differences presumably reflect the different types of exposures as well as the varying provisioning policies (Figure 31).

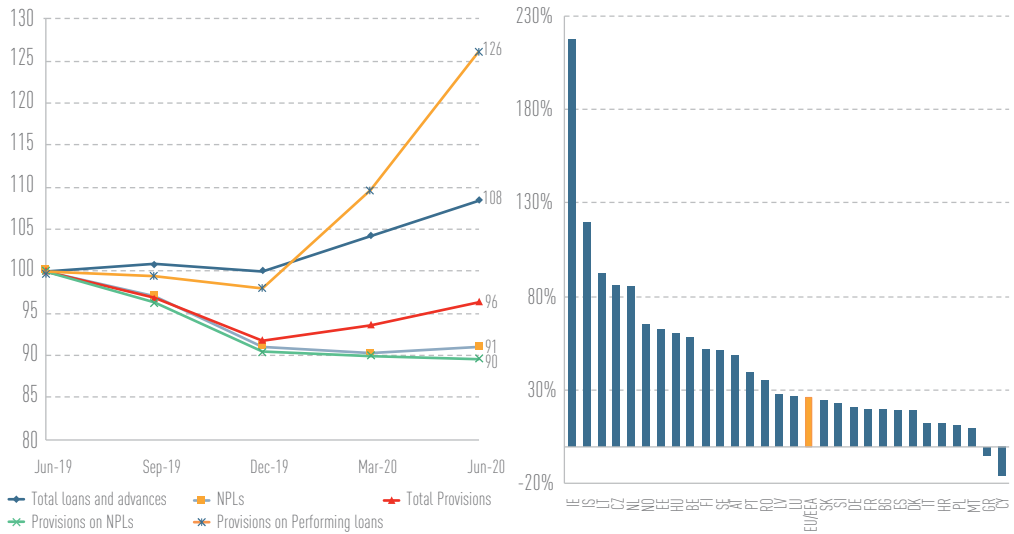
Figure 31: NPL volumes and accumulated impairments in June 2020 (EUR billion) and coverage ratio (%) by country in June 2019 and June 2020 (left), and coverage ratio dispersion by bank (5th, 25th, median 75th and 95th percentiles) (right)
 Source: Supervisory reporting data.



Accumulated impairments for performing loans increased by around EUR 16 billion (or 26%) compared with 2019, driven by the increase in provisions booked during the first half of this year. In June 2020, the total impairments booked for performing loans stood

at EUR 78 billion (0.43% of total performing loans). Similar to the stage 1 and stage 2 coverage, provisioning levels of performing loans during the past year vary significantly across countries (Figure 32; see also Chapter 5).

Figure 32: Evolution of total loans and advances, NPLs and provisioning levels for performing and non-performing loans (June 2019 = 100) (left), and YoY growth in accumulated impairments for performing loans by country, June 2019 to June 2020 (right)
 Source: Supervisory reporting data.

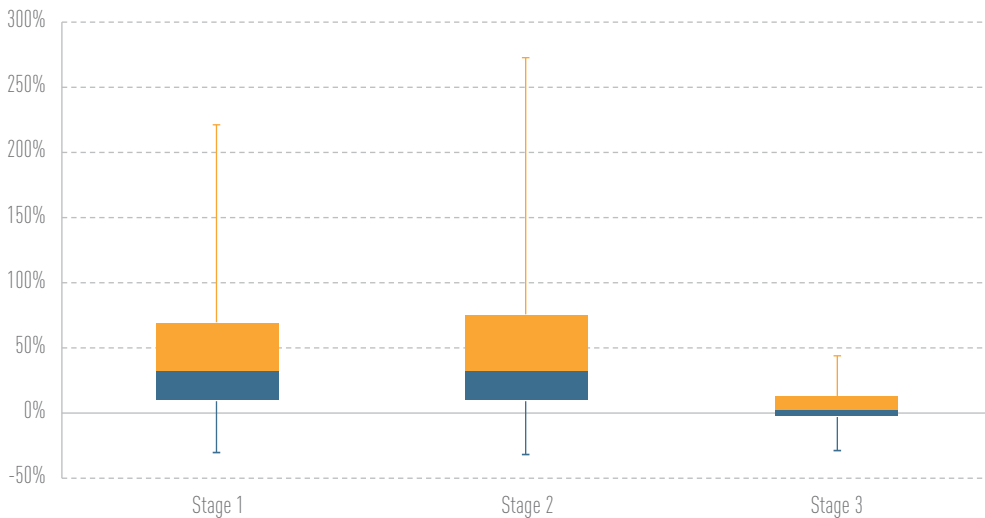


At sub-segment level, coverage ratios remained roughly unchanged in the past year, as impairments for NPLs decreased in line with the volume of NPLs (around -10%). The highest coverage ratio was reported for credit for consumption (62%), and the lowest coverage ratio was reported for mortgages (26%) and CREs (38%). Coverage ratios regarding performing loans have significantly increased for all sub-segments, with the unsecured exposures (SMEs, large corporates and consumer credit) driving this increase.

Wide dispersion of provisioning for stage 1 and stage 2 loans

Growth in provisioning levels (coverage), especially for stage 1 and stage 2, shows a very wide dispersion at bank level. In particular, 75% of banks have increased, by more than 10%, their coverage for stage 1 or stage 2, whereas 25% of them have increased, by at least 70%, their coverage for these two stages. On the contrary, the dispersion in coverage against stage 3 loans is very narrow, with an interquartile range of just 15 p.p. (Figure 33).

Figure 33: Distribution of growth in provisions (coverage) by stage, December 2019 to June 2020
 Source: Supervisory reporting data.



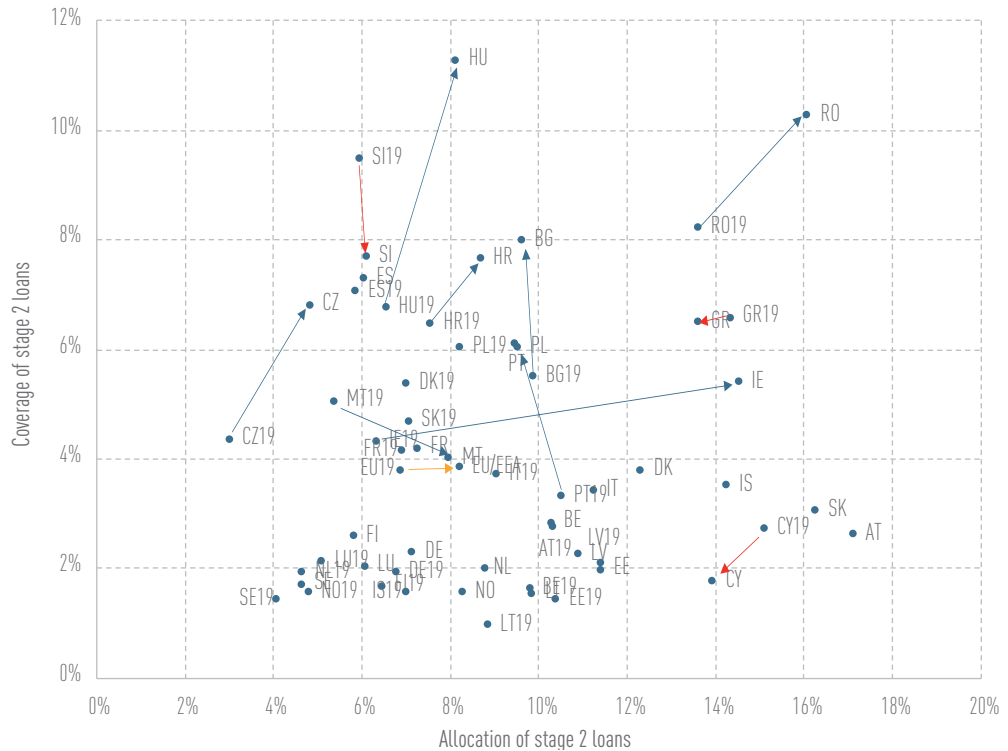
The combination of the stage moves and coverage ratios shows that banks in a number of countries have already moved a substantial share of loans under stage 2 and have

increased provisions accordingly. However, there are substantial differences between banks that may be driven by an uneven impact of the crisis on specific portfolios or coun-

tries' exposures. Differences may also be explained by the different accounting practices followed by banks under IFRS 9, which remains largely principle based and leaves room for judgement to banks. This is a point of attention for regulators and supervisors, with a number of initiatives currently ongoing

on the implementation of this standard and approaches followed by banks. Czechia, Croatia, Hungary, Ireland and Romania, for example, have not only substantially increased the allocation of stage 2 loans but also increased the coverage ratio (Figure 34).

Figure 34: Movement of the allocation of stage 2 loans and coverage ratio, from June 2019 to June 2020, by country
 Source: Supervisory reporting data.



The differences identified at country level are even more pronounced at bank level. Some banks have increased the allocation of stage 2 loans by more than 10 p.p. Only a few banks have substantially increased the allocation of stage 3 loans. A number of banks have reported a decrease in the allocation of stage 2 and 3 loans. These are predominantly banks from countries that have seen an overall decrease in NPL levels (Figure 24).

Banks have booked higher provisions for large ticket exposures and sectors particularly affected by confinement measures

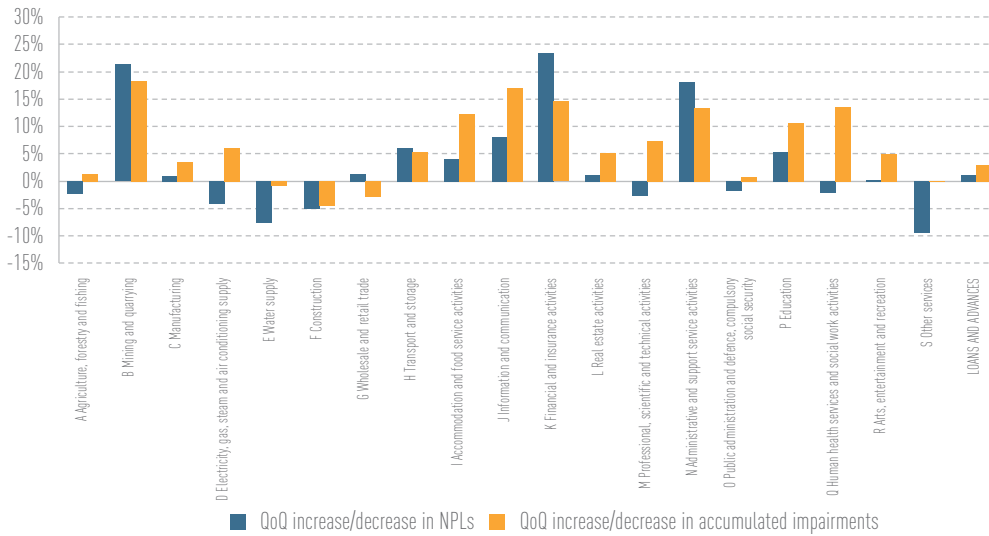
The COVID-19 crisis has had a heterogeneous impact across the sectors, as some

industries have been more affected by the confinement measures applied. The largest increases in NPL volumes were observed in financial and insurance activities (23%), followed by mining and quarrying (21%). However, these were mainly due to idiosyncratic large ticket exposures. EU banks also reported an increase in NPLs of around 5% to sectors particularly affected by confinement measures, such as hospitality, transport and education. For these specific sectors, EU banks recognised significantly higher impairments during the past quarter, anticipating a further deterioration in their asset quality, and reported the highest percentage of loans under moratoria in these sectors (Figure 35) ^[66].

[66] See the EBA's thematic note on moratoria and government guarantees.

Figure 35: Percentage of quarter on quarter (QoQ) growth in NPL volumes and accumulated impairments by NACE code, June 2020

Source: Supervisory reporting data.

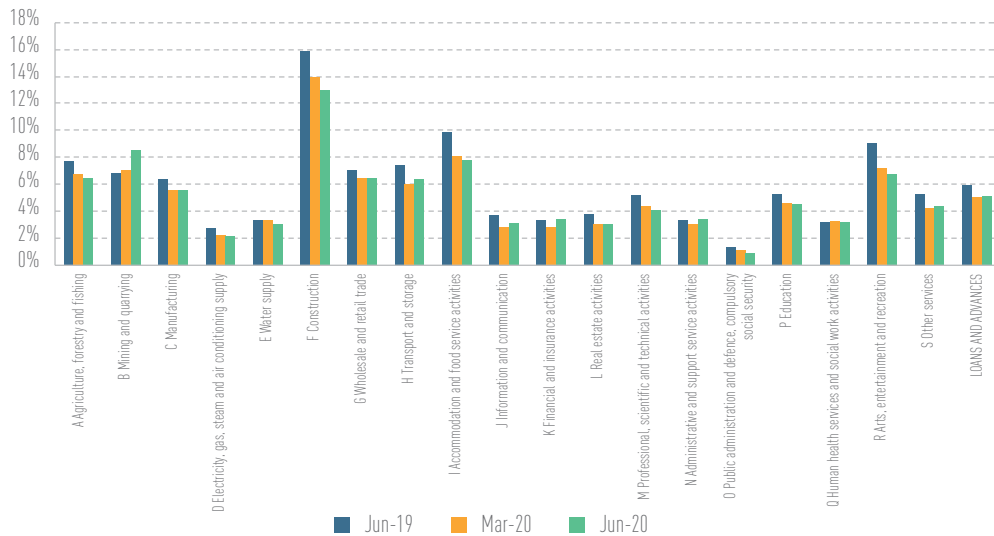


Despite the reported increase in NPL volumes and recognised impairment levels, with the exception of mining, quarrying and construction sectors, NPL ratios have not

materially changed in the past quarter. This is mainly due to the parallel increase in loans, helped by public guarantee schemes (see Chapter 2.1) (Figure 36).

Figure 36: Trend in NPL ratios by sector, June 2019 to June 2020

Source: Supervisory reporting data.



Banks and analysts expect a deterioration in asset quality

In RAR 2019, the EBA underlined the pessimistic outlook on asset quality based on the RAQ responses. The outlook has further deteriorated across all portfolios. RAQ responses show a rising percentage of banks and analysts expecting a deterioration in asset quality. Market participants are particularly concerned about the prospects of SME

lending and consumer credit, whereas they seem less concerned about residential mortgages exposures. With regard to the less common portfolios, such as asset finance, which includes shipping and aircraft, the vast majority of banks and analysts expect asset quality to deteriorate significantly. The increase in provisions on loans to transport and storage is in line with this view (Figure 37 and Figure 38).

Figure 37: RAQ results – In which portfolios do you expect asset quality to deteriorate in the next 12 months?

Source: EBA RAQ for banks.

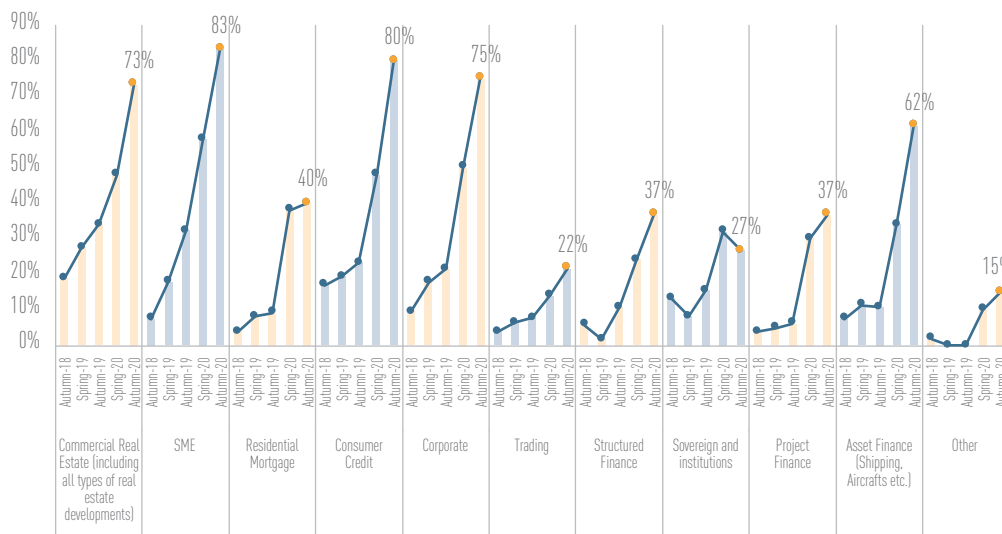
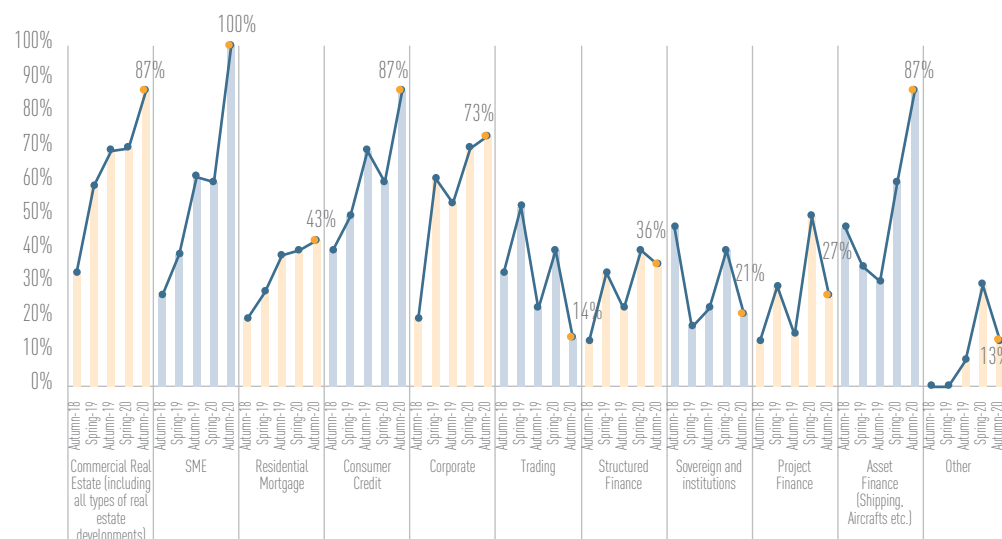


Figure 38: RAQ results – In which portfolios do you expect asset quality to deteriorate in the next 12 months?

Source: EBA RAQ for analysts.



Box 6: COVID-19 sensitivity analysis versus actual Q2 data – an analysis of stage moves so far versus those assumed in the sensitivity analysis

A sensitivity analysis performed by the EBA earlier this year showed that the COVID-19-related crisis could deplete banks' CET1 ratios by between 230 bps and 380 bps ⁽⁶⁷⁾.

⁽⁶⁷⁾ See the EBA's thematic note, 'The EU banking sector: first insights into the COVID-19 impacts'. The described impact on CET1 ratios is also a result of rising RWAs, which is not further analysed/referred to in this box. The sensitivity analysis was based on a sample of 117 banks.

This impact was calculated based on the application of shocks to migrations between IFRS 9 stages to reflect a severe worsening of credit quality.

The actual transfers to worse IFRS 9 stages during the first 6 months of 2020 were, on average, less than 10% of the total amount projected in the least adverse sensitivity analysis (Figure 39) ⁽⁶⁸⁾. Although the sensitivity analysis had an implicit horizon that

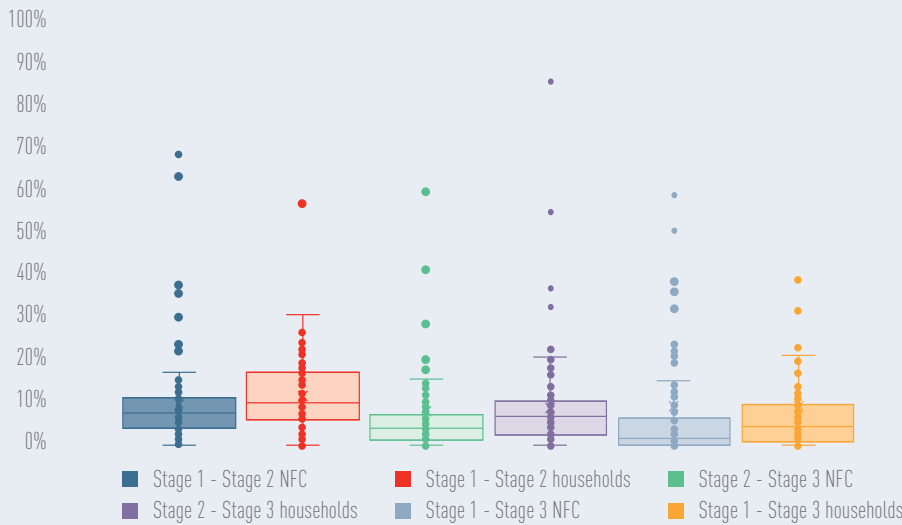
⁽⁶⁸⁾ The transitions range between 5% (stage 2 to stage 3 NFCs) and 13% (stage 1 to stage 2 households). These percentages decrease to 3% and 9%, respectively, if the most adverse sensitivity analysis is considered.

was longer than 6 months, the observed stage downgrades are lower than those reflected in the results of the sensitivity analysis. During the course of the crisis, this will possibly worsen and result in further stage migrations. The current trend might be partially explained by the use of public

support measures, such as moratoria and PGS. Given the usual lag in the deterioration of asset quality during crises, it also needs to be seen how the crisis further unfolds and how this might imply further stage moves of exposures.

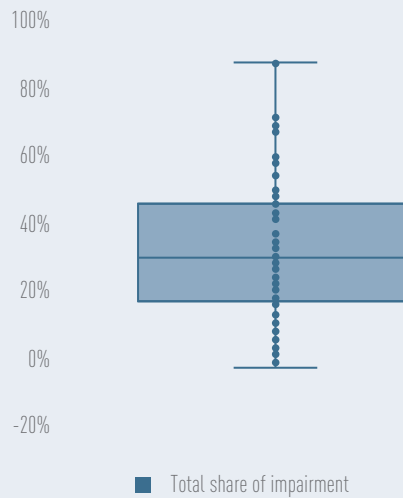
Figure 39: Ratio of transitions to worse IFRS 9 stages during the first semester of 2020 to transitions estimated in the least adverse sensitivity analysis (distribution by bank, NFCs and households, median, interquartile range, and 1.5 times the interquartile range)

Sources: Supervisory reporting data, the EBA’s thematic note on the preliminary analysis of the impact of COVID-19 on EU banks, EBA calculations.



Although, to date, the volumes of transitions to worse IFRS 9 stages remain low compared with those projected in the EBA sensitivity analysis, the impairment charges during the first half of 2020 reached a non-negligible share of the projected losses. Total impairment charges reached, on average, 32% of the total amount projected in the less adverse sensitivity analysis and 19% in the most adverse sensitivity analysis (Figure 40). Almost 25% of banks in the sample of the sensitivity analysis had already booked, in the first half of 2020, at least half of the losses estimated in the less adverse sensitivity analysis. These results reflect the fact that the increase in the cost of risk has been mainly driven by higher provisions for performing loans since the beginning of the year, as described in this chapter.

Figure 40: Share of losses during the first two quarters of 2020 compared with losses estimated in the least adverse sensitivity analysis (distribution by bank, median, interquartile range and 1.5 times the interquartile range)



Sources: Supervisory reporting data, the EBA’s thematic note on the preliminary analysis of the impact of COVID-19 on EU banks, EBA calculations.

3. Liability side: funding and liquidity

3.1. Funding

On the liability side of the balance sheet, banks continued their focus on customer deposits, which increased in 2020. Central bank funding has become increasingly common and attractive, and its importance has materially increased. Market-based funding was broadly resilient to the crisis after the initial turmoil subsided. Banks focused on building loss-absorbing capacity (minimum requirement for own funds and eligible liabilities – MREL). The share of secured debt in the funding mix increased between June 2019 and June 2020, reversing a trend observed in the previous year.

Growing importance of central bank funding

At the beginning of 2020, outstanding long-term central bank funding was trending downwards. In the first allotments of the ECB's TLTRO-3 programme launched in September 2019, euro area banks obtained relatively limited amounts that were below the volumes of repayments of the preceding TLTRO-2 programme. With the outbreak of the COVID-19 crisis, the volumes of central bank funding for banks increased significantly. As an immediate response to the unfolding crisis, the ECB introduced new central bank funding programmes, such as the temporary LTROs on 12 March 2020^[69], aimed at bridging possible funding gaps between the March and June TLTRO-3 allotments, and the PELTROs on 30 April 2020, aimed at ensur-

ing sufficient liquidity during the pandemic period.

Other European central banks beyond the euro area also provided additional liquidity facilities as an immediate response to the crisis. The ECB has introduced improved conditions for its TLTRO-3 programme for allotments from June 2020 to June 2021^[70], which have made the programme more attractive to participate in. The improved conditions include a reduced interest rate of up to 50 bps below the ECB's deposit rate, thus enabling banks to obtain ECB funding at markedly negative rates. The maximum amount that counterparties are entitled to obtain was raised from 33% to 50% of stocks of eligible loans.

The allotments in the first two tenders of the TLTRO-3 programme under improved conditions in June 2020 and September 2020 were very high at EUR 1.3 trillion and EUR 175 billion, respectively. Maturing temporary LTRO and TLTRO-2 funds, as well as early repayments of TLTRO-3 funds obtained before the COVID-19 crisis, contributed to the high usage of the improved TLTRO-3. However, additional net ECB funding obtained was still significant. Opportunities to reduce funding costs for participating banks and efforts to improve funding positions in a materially deteriorating economic environment were important drivers of high take-up volumes. A high demand for loans from non-financial corporates in the second half of 2020 also contributed to a high usage of TLTRO-3.

Figure 41: Maturing volumes of TLTRO-2 and TLTRO-3, and PELTRO

	2020	2021	2022	2023
Maturing TLTRO-2 and TLTRO-3 volumes	EUR 11 billion	EUR 22 billion	EUR 101 billion	EUR 1 598 billion
Maturing PELTRO volumes	N/A	EUR 24 billion	N/A	N/A

Source: ECB^[71], EBA calculations.

^[69] See the ECB's announcement of measures to support bank liquidity conditions and money market activity.

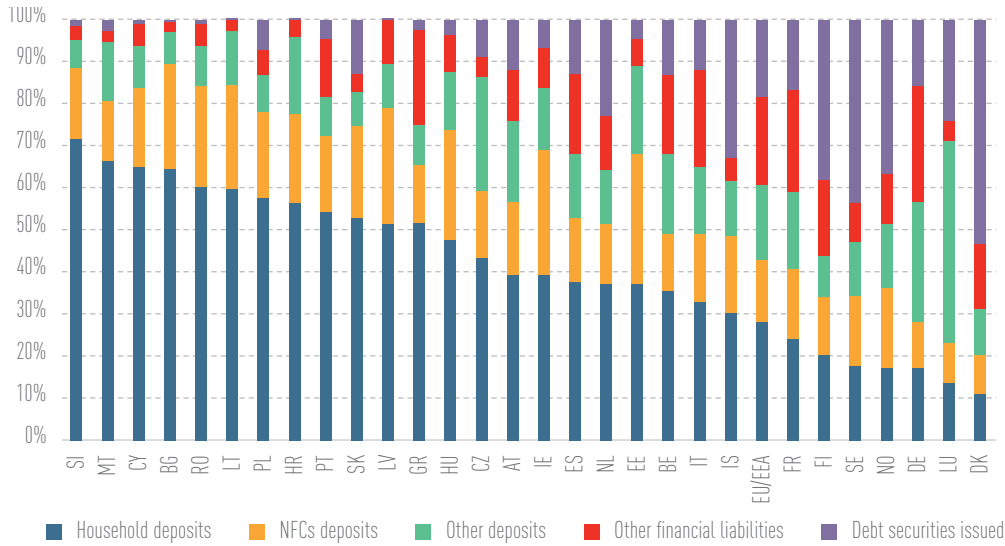
^[70] See the ECB's statement on the recalibration of their targeted lending operations.

^[71] The ECB data do not fully reflect early repayments.

The total outstanding balance of TLTRO programmes reached a record high of about EUR 1.75 trillion in September 2020 and underlines the importance that central bank funding has gained in banks' funding structures. In comparison, the usage of ECB funding facilities reached a high of EUR 900 bil-

lion in the GFC. The strong focus on central bank funding is not least reflected in banks' liability compositions. The share of other financial liabilities, which includes deposits from central banks, strongly increased to 20.7% in June 2020, compared with 18.3% in June 2019 (see June 2020 data in Figure 42).

Figure 42: Breakdown of liabilities composition by country, June 2020
Source: Supervisory reporting data.



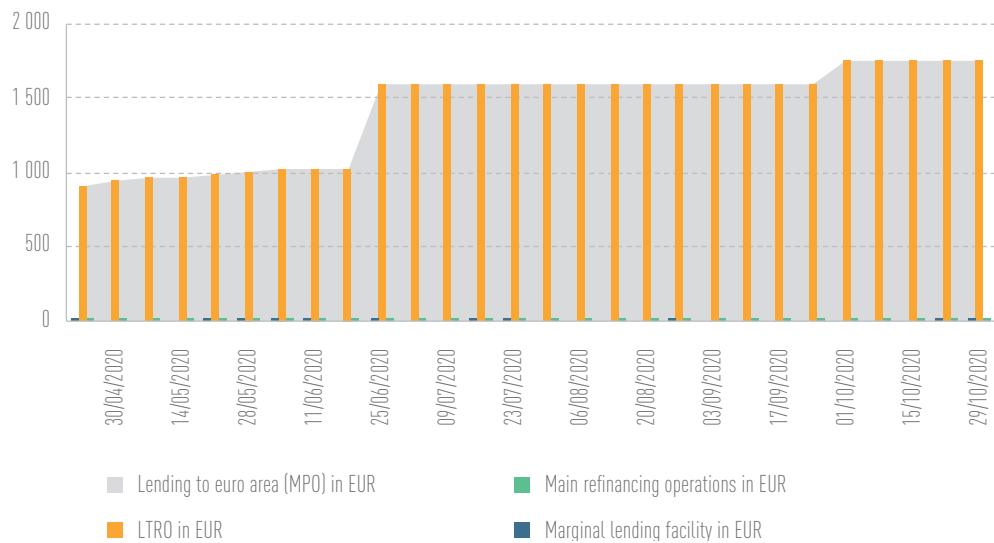
The ample funding facilities that central banks have swiftly provided since the outbreak of the COVID-19 crisis have been an important factor in limiting market concerns about EU banks in the crisis (see also Chapter 1), in reducing credit spreads from their temporary highs, and in improving general funding market conditions. In the early stages of the crisis, central bank funding also indirectly helped to support liquidity positions of corporates when they drew on credit lines to improve their liquidity positions.

A growing importance of central bank funding may pose structural challenges. Taking

into account the fact that ECB long-term funding has been provided since 2011, banks might become increasingly accustomed to and reliant on central banks. Central bank funding might, moreover, crowd out segments of market-based funding to the detriment of investors. For example, decreasing covered bond issuance volumes have been attributed to the preferences of banks for TLTRO-3. Going forward, banks may find it increasingly challenging to wean themselves off central bank funding and replace it with market-based funding or deposits.

Figure 43: Main refinancing operations, marginal lending facility, LTRO, lending to the euro area (EUR billion)

Source: ECB, EBA calculations.



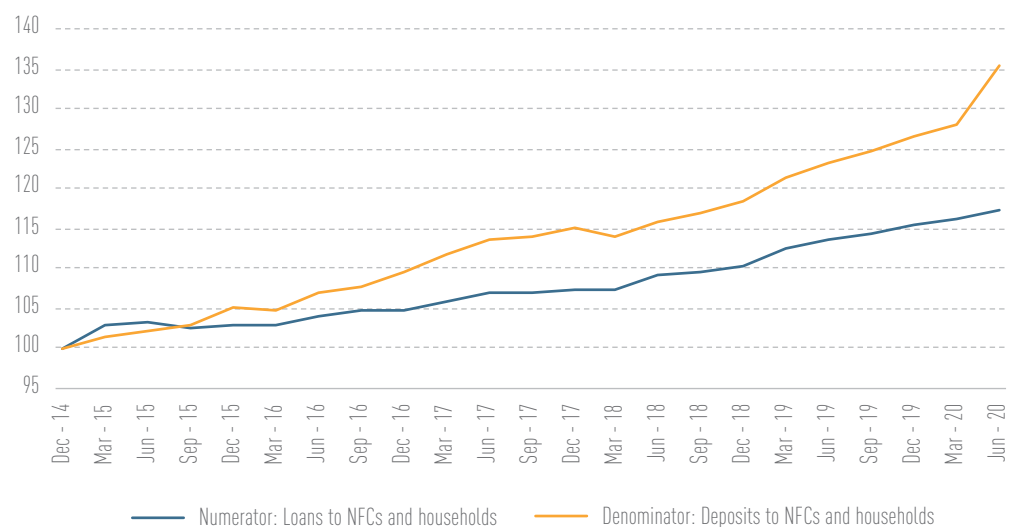
Deposit base keeps on increasing

Deposit volumes continued to increase strongly in 2020, in spite of no or little remuneration for depositors and a wide usage of negative interest rates, in most cases for deposits above certain thresholds. The share of customer deposits in banks' liability structures stood at 54.4% in June 2020, at the same level as in June 2019 and considerably higher than in previous years. The outbreak of the crisis did not materially affect deposits, with volumes remaining stable at the height of the crisis and having increased further since then.

The share of customer deposits from NFCs in total liabilities increased from 13.9% in June 2019 to 15.1% in June 2020 (see June 2020 data in Figure 42). This increase may be attributable to efforts of NFCs to improve their liquidity positions in the light of the high level of uncertainties in the COVID-19 crisis. NFC deposits increased in spite of widespread negative rates [72]. The total volume of household deposits also continued to increase (Figure 44; also see Chapter 3.2 and in particular Figure 52).

Figure 44: Loan-to-deposit ratio dynamics (trends in numerator and denominator; December 2014 = 100), over time

Source: Supervisory reporting data.



[72] In their responses to the RAQ, 50% of banks indicate that they charge negative interest rates to NFC deposits on current accounts.

The strong increase in deposits, which has occurred at a faster pace than the rise in loans, has resulted in a decreasing loan-to-deposit ratio, which was at 116% in June 2020 (123% in June 2019). These trends are confirming the strategy of EU banks to focus on more stable sources of funding. The strong inflow from customer deposits also potentially added to the rise in banks' liquidity (see Chapter 3.2).

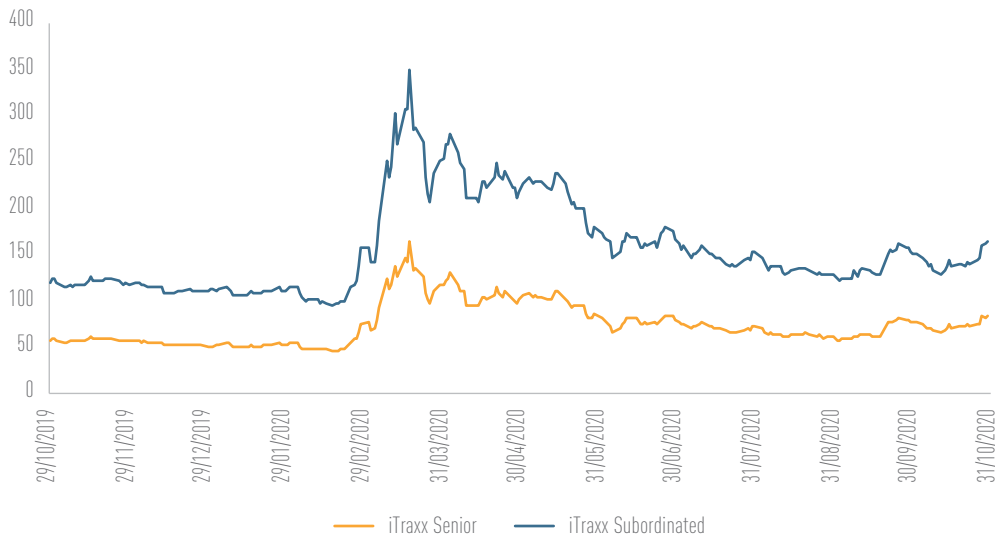
Responses to the RAQ indicate that, going forward, banks intend to place less importance on attracting retail deposits than in the past. Only 20% of respondents plan to attain more retail deposits in the next 12 months. Attaining more senior unsecured funding, senior non-preferred funding and subordinated funding has more importance in banks' plans. In autumn 2019, attaining more retail deposits was, for 35% of responses, of higher importance to banks (Figure 46).

Spread moves: recovery from market turmoil, but volatility persists

Spreads of all market funding instruments decreased to near record-low levels at the beginning of 2020, when funding market conditions were very favourable. With the outbreak of the COVID-19 crisis, spreads for European bank debt instruments sharply widened to levels not seen since the GFC, whereas market volatility spiked to unprecedented heights. Spreads have been broadly trending downwards since then, after wide-ranging monetary and fiscal support measures were introduced. Looking forward, spreads might sharply increase again, not least depending on adverse news related to COVID-19 and other issues, and current spread levels have not yet demonstrated their medium- to long-term sustainability.

Figure 45: iTraxx financials (Europe, senior and subordinated, 5 years, bps)

Source: Bloomberg, EBA calculations.



Spreads have also been more volatile in 2020, starting in March. Bouts of volatility have been mostly related not only to the course of the pandemic and rising COVID-19 infection rates, but also to political events, such as elections and Brexit-related negotiations. In a more volatile market environment and against the backdrop of the crisis, widening spreads reflect the increased risk perceptions of investors. After the temporary halt of market funding activities at the beginning of the crisis, covered bond issuing resumed first, followed by unsecured instruments, whereas the issuance of instruments that were lower in the hierarchy of capital stack resumed last.

Primary funding activity reflects the evolution of market conditions in 2020

Banks made use of a period of very benign market conditions at the beginning of the year, when yields decreased to near record-low levels, and issued large volumes of unsecured and secured debt instruments, in particular instruments eligible for MREL. Strong issuance activity and speeding up of 2020 funding plans early in the year supported banks in weathering a period of very high financial market turmoil when the COVID-19 crisis materialised in Europe in February.

No major listed unsecured debt instrument of an EU bank was issued during the unprecedented market volatility that occurred from 24 February 2020 to mid-April 2020. Another

key impact of the turmoil brought about by the outbreak of COVID-19 in Europe could be seen for money market funds (MMFs). In particular, low-volatility net asset value MFs, which invest for instance in commercial papers or certificates of deposits, faced significant outflows. MMFs are one of the key investors in banks' short-term debt, and are therefore an example of the interlinkages at financial markets ⁽⁷³⁾.

The announcements of the ECB to introduce additional programmes to provide medium- and long-term bank funding were an important factor in cautiously improving sentiment so that primary bank funding markets could reopen. The ECB announcement of improved conditions for its TLTRO-3 had a particularly positive impact on financial markets. Central banks beyond the euro area have also provided additional liquidity and funding facilities in response to the crisis, such as swap lines to provide liquidity in EUR and other currencies (see also Box 1 on COVID-related policy measures in Chapter 1). The pent-up demand of investors with ample liquidity positions in search for yield in the context of very low interest rates also facilitated the reopening of funding markets.

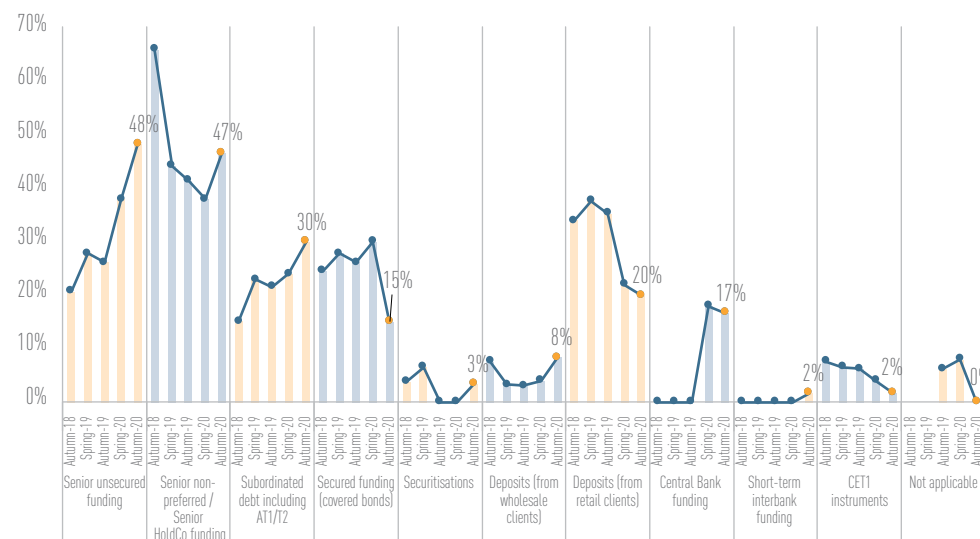
In line with a slowly improving market sentiment, the issuance activity of unsecured bank debt instruments has increased again since May. Large and medium-sized banks, including those with weaker market perceptions, have in general been able to issue instruments across the capital stack at rea-

sonable costs. However, some reluctance to place subordinated instruments persists for some banks with heightened risk perceptions and has been mainly connected to heightened pricing. The issuance activity of unsecured funding instruments continued to be rather high until September 2020, besides some seasonal reduced activity. Market information suggests that issuance activity has surpassed the volumes of previous years.

Besides rising issuance volumes of bail-in-able senior instruments, Tier 2 and AT1 were also key drivers of increased unsecured issuances. Tier 2 and AT1 increased in importance not least following the ECB's announcement that banks are allowed to partially use AT1 and Tier 2 instruments to meet their P2R ⁽⁷⁴⁾. Responses to the RAQ also indicate that senior non-preferred instruments and subordinated debt instruments, including AT1 and Tier 2, are among those instruments that banks intend to focus on in the next 12 months; the level of focus on these instruments has strongly increased compared with the previous RAQ (Figure 46).

In contrast to unsecured funding instruments, covered bond issuances have been low in 2020. Although they were in line with previous years at the beginning of the year, issuances were greatly reduced during adverse market conditions at the beginning of the COVID-19 crisis. However, unlike unsecured funding, covered bond issuances did not substantially increase when market conditions gradually improved.

Figure 46: Intentions to attain more funding via different funding instruments
Source: EBA RAQ for banks.



⁽⁷³⁾ See, for instance, European Securities and Markets Authority's (ESMA) Report on Trends, Risks and Vulnerabilities (No 2, 2020) and the ECB's Financial Stability Review (May 2020), according to which MMFs held around EUR 250 billion of euro area banks' commercial papers and short-term debt as of year-end 2019.

⁽⁷⁴⁾ See the ECB's statement on their COVID-19-related relief measures.

Central bank buying of covered bonds under APPs, in particular the ECB's PEPP and covered bond purchase programme, also led to some crowding out of private sector investors into covered bonds. Moreover, the focus of banks' market funding activity since the introduction of TLTRO-3 has been on instruments that offer more regulatory benefits for issuing banks and, in particular, those with eligibility for loss-absorbing capacity.

Responses to the RAQ underline expectations that fewer banks intend to focus on covered bonds in their funding strategies (Figure 46). Analysts confirm the expectations and observed trends. No analyst in the RAQ expects banks to attain more covered bonds, whereas 53% of analysts expect banks to attain more central bank funding and more subordinated debt.

Progressing towards attaining required amounts of MREL, but challenges remain

Resolution authorities across the EU have advanced in agreeing resolution strategies and setting MREL requirements. MREL targets have been communicated to all G-SIIs and other systemically important institutions (O-SIIs) in the EU. Although a growing number of banks concerned has already attained their required amounts of MREL-eligible instruments, substantial amounts of MREL-eligible debt still need to be issued to close shortfalls of required eligible amounts. The EBA estimates suggest that 117 banks out of a sample of 222 have an MREL shortfall of EUR 178 billion as of year-end 2018 ^[75]. Responses to the RAQ confirm that the implementation of MREL requirements is a key driver of funding strategies and indicate that instruments eligible for MREL are among the most important sources of funding that banks intend to attain (Figure 46).

Some resolution authorities have responded to the crisis by extending the timeline until the point at which MREL targets have to be attained. The Single Resolution Board (SRB) communicated that it would assume a forward-looking approach to attain intermediate MREL targets for euro area banks that may face difficulties in meeting those targets by 2022, thereby providing these banks with more flexibility ^[76]. Final original MREL targets, nevertheless, still need to be met by 2024.

More flexibility or more time to attain final MREL targets might explain the fact that, according to responses to the RAQ, senior unsecured instruments are the most popular funding instrument that banks intend to focus on in the next 12 months, next to senior non-preferred instruments (Figure 46). About one third of respondents to the RAQ also identify uncertainty about required MREL amounts as a constraint on issuing eligible instruments (Figure 47). These banks might, for the time being, focus their funding strategies on attaining cheaper preferred senior unsecured instruments, rather than senior non-preferred/senior holding company (HoldCo) funding.

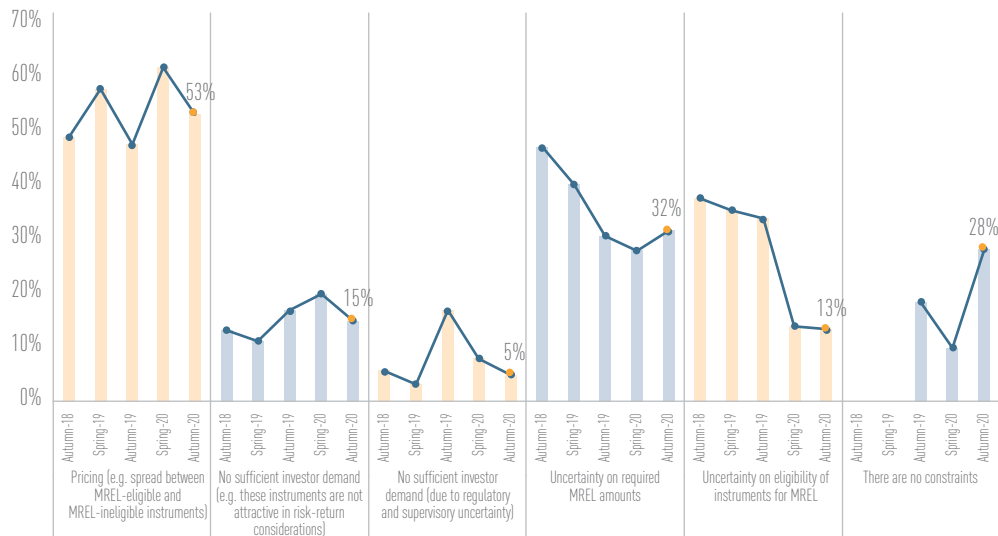
Increased challenges to meet MREL requirements due to the COVID-19 crisis

The COVID-19 crisis has aggravated challenges to attaining required volumes of MREL that were present before the crisis. The challenges relate particularly to banks with weaker market perceptions and some medium-sized banks domiciled in countries more affected by the crisis and sovereign debt concerns. Pricing to issue MREL-eligible instruments remains higher than before the crisis and makes attaining MREL targets more expensive for banks, which often face other major profitability challenges.

^[75] See EBA quantitative MREL report, 29 October 2020.

^[76] See SRB communication on their approach to MREL targets.

Figure 47: Constraints to issuing subordinated instruments eligible for MREL
 Source: *EBA RAQ for banks.*



RAQ responses from autumn 2020 confirm such challenges and show that banks still consider that the pricing of instruments eligible for MREL is the most relevant constraint on issuing these instruments (Figure 47). Conversely, the share of RAQ responses pointing to doubts about sufficient investor demand has decreased. This may indicate not only diminishing concerns about market

capacity to absorb all the MREL volumes that banks still need to issue but also an assumed growing interest of yield-searching investors in instruments that have been pricing higher since the crisis. The latter may also explain the strong increase in the share of responses that are not expecting any constraints to issuing instruments eligible for MREL.

Box 7: Discontinuation of benchmark rates: quickly nearing cessation dates

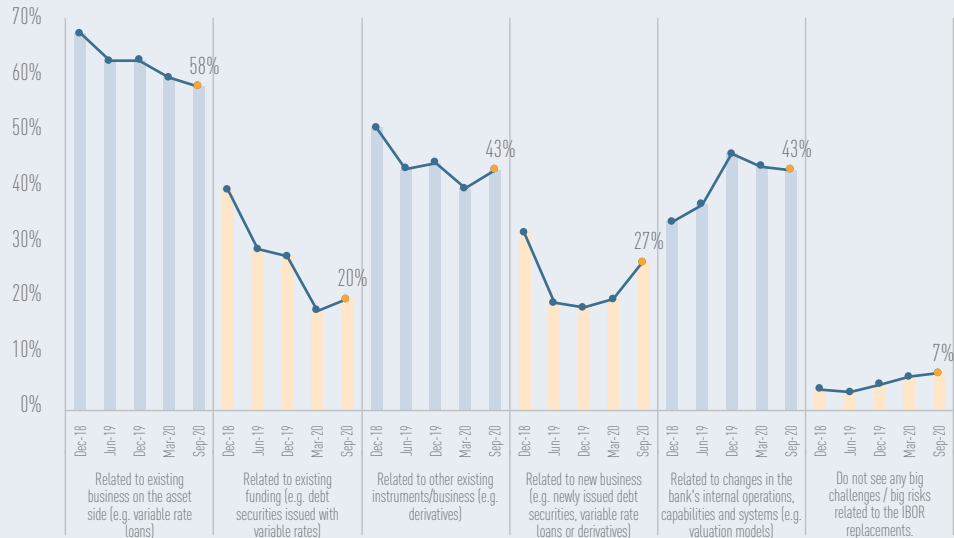
Benchmark rates play a major role in banks' daily business, such as in lending, bond investments or issuances, or related to derivatives. They affect the pricing of such products as well as their valuation and risk management. Several benchmark rates are nearing their cessation, including the Euro Overnight Index Average (EONIA), which will be discontinued on 3 January 2022, and the London Interbank

Offered Rate (LIBOR), which must cease at the end of 2021 ⁽⁷⁷⁾. Alternative benchmark rates have been identified, such as the Euro Short-Term Rate (€STR), the Secured Overnight Financing Rate (SOFR) for USD and the Sterling Overnight Index Average (SONIA) for GBP.

⁽⁷⁷⁾ With regard to respective dates and the replacements of existing benchmark rates, see, for example, the timeline on the transition from EONIA to €STR, as published by the ECB, the US Securities and Exchange Commission and the Financial Conduct Authority.

Figure 48: Interbank Offered Rates (IBOR) replacements – the areas in which banks see the largest challenges and potentially the largest risks in their preparations in view of the IBOR replacements

Source: EBA RAQ for banks.



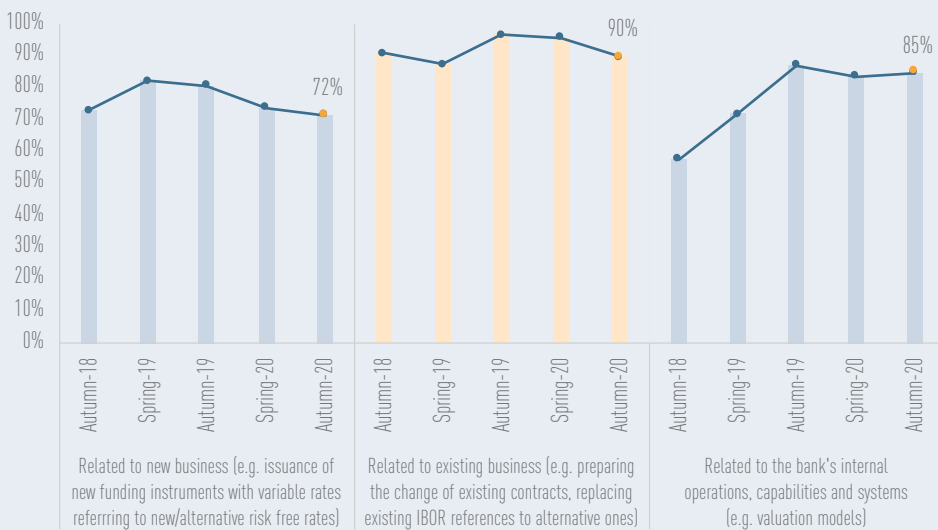
The impact of the replacement of benchmark rates can be significant for banks, and implies, for instance, a change of contracts at granular level or can affect ICT systems, such as for the valuation of products referring to benchmark rates. Given this, the preparedness of banks for these events remains a key risk in the foreseeable future. RAQ responses also confirm that banks see key challenges and risks related to the transition for existing business on the asset side (agreement of 58%), to

derivatives and internal operations (agreement of 43% for the last two; Figure 48).

Responses to the RAQ confirm that most banks continue to work on solutions for existing business, such as changes to existing contracts (agreement of 90%). The work on banks' internal operations, capabilities and systems also remains high on the agenda (agreement of 85%). The level of agreement has been comparable in recent RAQ editions (Figure 49).

Figure 49: IBOR benchmark rate replacements: areas that banks are working on

Source: EBA RAQ for banks.



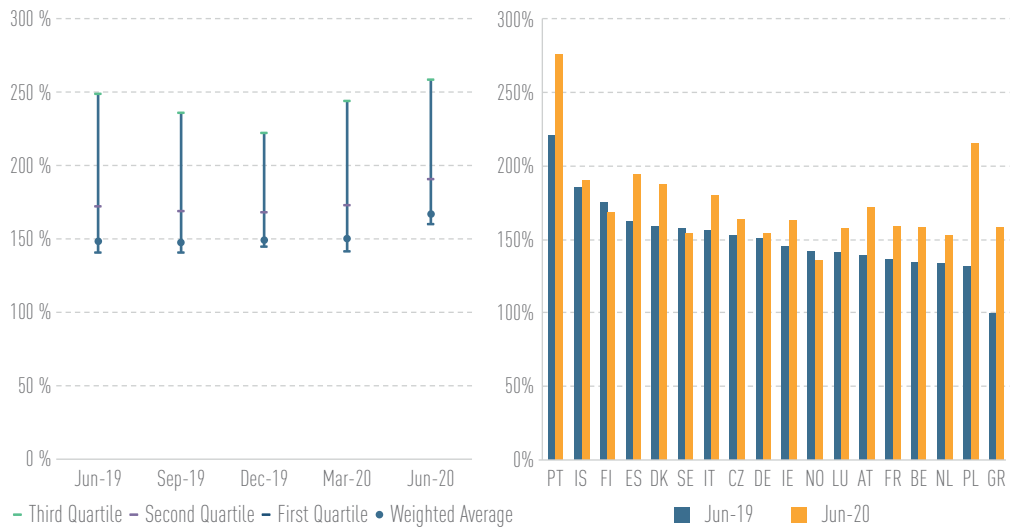
3.2. Liquidity

Strong liquidity positions due to central bank measures

The LCR shows a solid short-term liquidity position that increased in the second quarter

of 2020, mostly due to central bank measures (Figure 50). In June 2019, the weighted average LCR was equal to 147.7% and remained roughly stable up to June 2020, when the LCR increased to 166%. Euro area countries show the largest increases, whereas for many non-euro area countries the LCR remained largely stable.

Figure 50: Liquidity coverage, at EU/EEA level, over time (left) and by country (right)
Source: Supervisory reporting data.



The largest part of LCR liquidity buffers relies on level 1 assets, which include, for instance, central banks' reserves and marketable securities representing claims on or guaranteed by sovereigns or central banks. Between June 2019 and June 2020, the increase in level 1 cash and reserves was mainly due to growing exposures to central banks and partially due to the contraction of sovereign spreads and the resulting increase in the value of government bonds. This trend

was particularly pronounced during the second quarter of 2020 (Figure 51). The new TLTRO-3 allotment in June resulted in supplementary excess liquidity, which is visible in the LCR in withdrawable central bank reserves (for more information on TLTRO-3, see Chapters 1 and 3.1). Looking forward, a higher level of liquid assets can be used to provide support to the real economy. In such a case, the LCR will decline in the upcoming quarters.

Figure 51: Liquid assets composition (after weights and pre cap), at EU/EEA level, June 2019 and June 2020
Source: Supervisory reporting data.

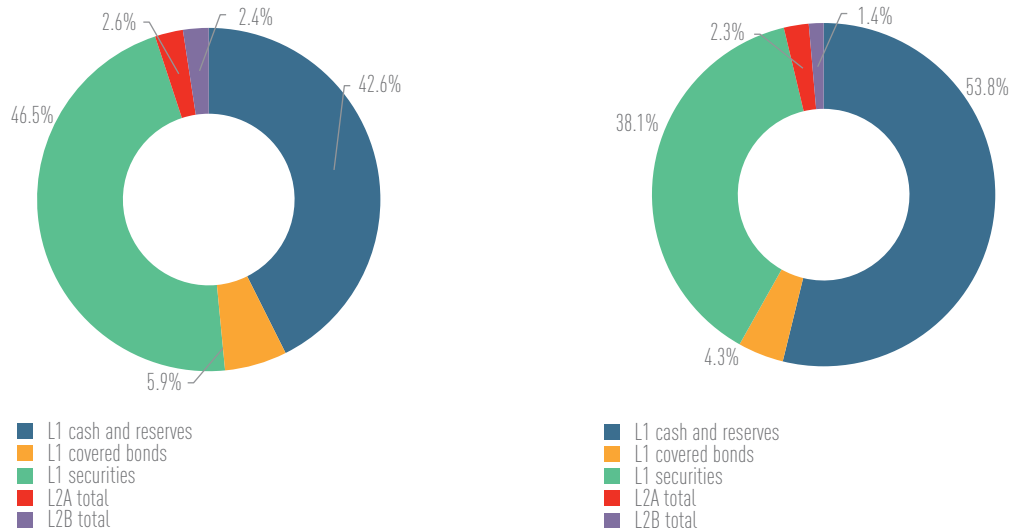
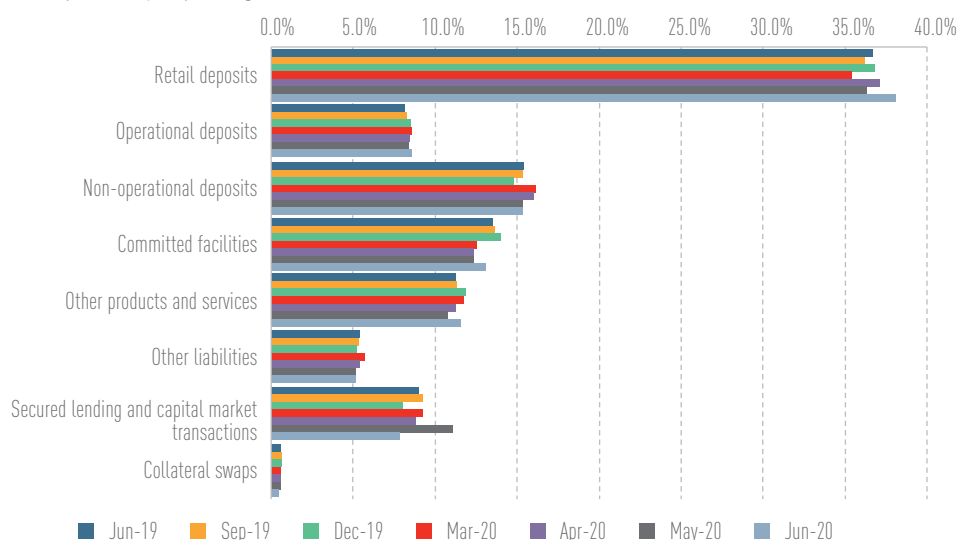


Figure 52: Outflows (pre weights) as a share of total outflows, at EU/EEA level, over time

Source: Supervisory reporting data.



The collateral used for the enhanced TLTRO-3 facilities has partially affected the counterbalancing capacity, since most of the collateral refers to non-marketable instruments such as 'loans and advances other than loans on demand' (not included among liquid assets for the LCR purposes) ⁽⁷⁸⁾. For this reason, the encumbrance ratio of central banks' eligible loans and advances other than loans on demand increased from 56.4% in June 2019 to 64.6% in June 2020. The jump in the encumbrance ratio for this category of ECB eligible assets is even more visible if compared with December 2019 data, when the ratio was equal to 52.1%.

Asset encumbrance ratio on the rise

The overall asset encumbrance ratio increased from 25.9% in June 2019 to 27.5% in June 2020. The increase took place during the first half of 2020 amid the extensive use of central bank facilities. During this period, the encumbrance ratio of central bank eligible assets and collateral rose from 44.4% to 49.3%. These rises have occurred despite the increase in the denominator, which comprises total assets and collateral received.

Increasing role of retail deposits

With the June TLTRO-3 allotment, banks refunded some previous long-term funding instruments (such as 3 month LTROs). This is visible in the 'secured lending and capital market transactions' in LCR reporting, which rose temporarily in the May data due

to the ending of LTRO funding (Figure 52; for more information on the LTRO as a bridge-like measure for the TLTRO-3 allotment see Chapter 3.1). The spread tightening that has been observed in sovereign bonds since April allowed banks to claim more liquidity for the same volume of encumbered assets. If this recovery had not taken place, the encumbrance ratio of central banks' eligible assets would have increased further.

The composition of the outflow (before application of weights) shows that banks mostly rely on low-volatility instruments such as retail deposits for short-term funding. Its weight over total outflows increased from 36.7% in June 2019 to 38.0% in June 2020 (for more information on the increase in retail deposits, see Chapter 3.1). The undrawn committed facilities represent more than 10% of total outflows, and they have almost recovered from the depletion recorded in March, April and May 2020, presumably due to public guaranteed loans replacing committed facilities (see also Chapter 2.1). Other outflows remain broadly stable (Figure 52).

Short-term currency mismatch is showing some signs of deterioration

Some banks hold significant amounts of foreign (non-domestic) currencies in their funding profiles. Weighted average LCRs have been above 100% for USD and GBP in recent quarters. However, in the past quarter, the net liquidity outflows increased compared with June 2019 figures. Both USD and GBP are slightly above 100% (Figure 53), with relatively wide interquartile ranges, meaning the short-term funding in USD and GBP differs significantly among banks.

⁽⁷⁸⁾ Counterbalancing capacity represents the stock of unencumbered assets or other funding sources that are legally and practically available to banks to cover their potential funding gaps. The counterbalancing capacity might not include all central bank eligible assets.

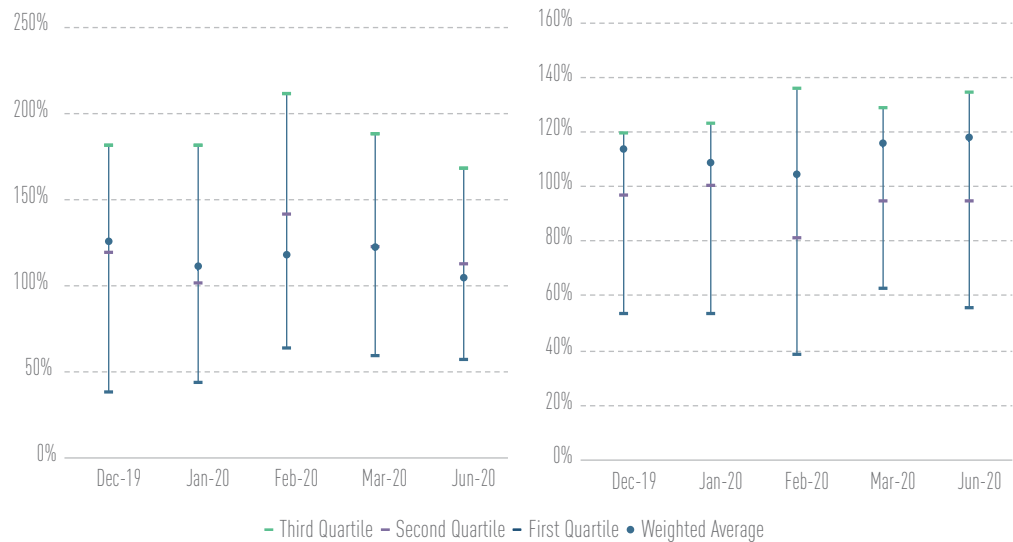
The USD liquidity buffers represent 13% of the overall liquidity buffers of banks reporting USD as a significant currency in June 2019. The percentage slightly declined in Q2 to 12%. In contrast, the net USD liquidity outflows increased from 15% to 17% of the overall net liquidity outflows. The overall shortfall (the difference between the liquidity buffer and net liquidity outflows at bank-by-bank level, i.e. the number of banks that have a shortfall) that banks may have needed to fund in June 2020 amounts to 0.4% of the total assets (0.3% in June 2019).

Liquidity buffers in GBP represent less than 3% of the overall liquidity buffers of banks reporting GBP as a significant currency in June 2019. The percentage remained substantially stable in June 2020. The net liquidity outflows remained relatively stable at around 3% of the overall net liquidity outflows (however, it increased in absolute value). The shortfall that banks may have needed to fund in June 2020 represents 0.1% of the total assets of banks that report GBP as a significant currency (the percentage was substantially the same in June 2019).

Although the LCR in USD showed a reduction in June 2020, central banks' measures, such as USD swap lines, have alleviated any potential stress in the USD funding market. Indeed, at the beginning of the COVID-19 crisis, amid USD funding tensions, banks made extensive use of these facilities ⁽⁷⁹⁾.

However, in the light of relatively low liquidity positions in these foreign currencies, it is still important that banks carefully manage foreign currency positions in their funding profiles, including short-term liquidity. The avoidance of significant currency mismatches in banks' balance sheets is also important to keep foreign exchange-related risks limited. This is particularly relevant in an environment of persisting significant uncertainty with risks of suddenly increasing risk premia. The ability to swap foreign currencies might also be constrained in stressed conditions with potential challenges to accessing liquidity. The challenge might be even more relevant when monetary policies change suddenly, for example in the event of interest rate or similar decisions or when the change to long-term inflation levels is announced or publicly discussed.

Figure 53: LCR by currency, for USD (left) and GBP (right), at EU/EEA level, over time
Source: Supervisory reporting data.



⁽⁷⁹⁾ See the Federal Reserve Bank of New York data on central bank liquidity swap operations.

Box 8: An analysis of banks' liquidity risk position

Central bank measures adopted in response to the COVID-19 outbreak have widely increased banks' short-term liquidity positions as it can be seen in the LCR's

trend. This analysis assesses if banks have sufficient liquidity resources to meet their payments over time, even under additional potential liquidity stress situations ⁽⁸⁰⁾. The aim is to identify the longest period of time

⁽⁸⁰⁾ This analysis is based on a sample of 113 banks.

during which banks' liquidity resources are expected to be sufficient to meet banks' outflows over time. This time interval is defined as banks' survival period, and over longer time horizons banks might encounter liquidity issues.

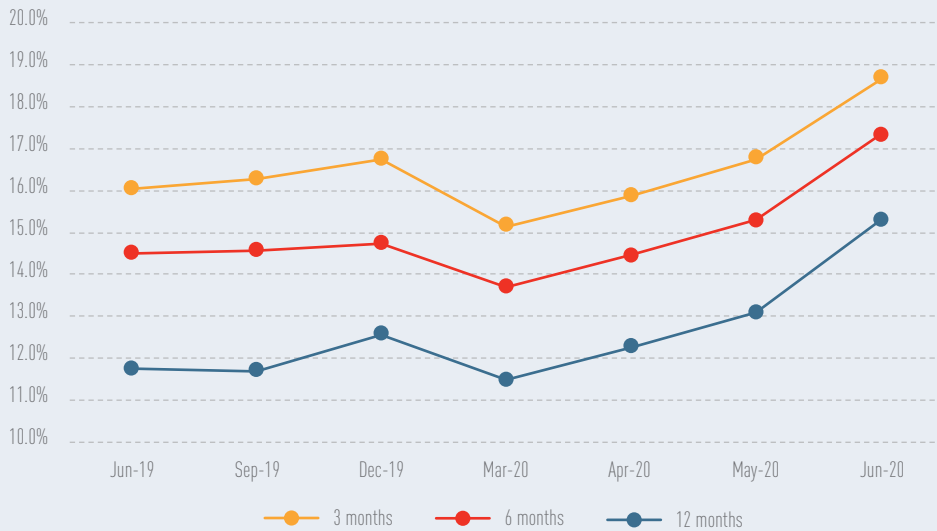
The set of liquidity resources includes the liquid assets that banks hold (such as cash, central banks deposits and unencumbered securities) and incoming flows of liquidity (such as inflows from loans and interbank deposits) over time. Those liquidity resources are compared with the payments expected during the same period of time (such as outflows due to the repayment of

liabilities, withdrawals of deposits and collateral posted in derivatives transactions).

In the analysis, the gap between the liquidity resources and the payments expected in the next 3, 6 and 12 months is expressed as a share of total assets. The results of the analysis show that the liquidity position of banks was somewhat affected by the COVID-19 outbreak. This was followed by a recovery, which reflects central bank measures, as the actions undertaken by central banks increased banks' liquidity position from May 2020 onwards and caused it to reach to the highest level seen since 2019 (Figure 54).

Figure 54: Banks' liquidity position with a time horizon of 3, 6 and 12 months (as share of total assets)

Source: Supervisory reporting data, EBA calculations.

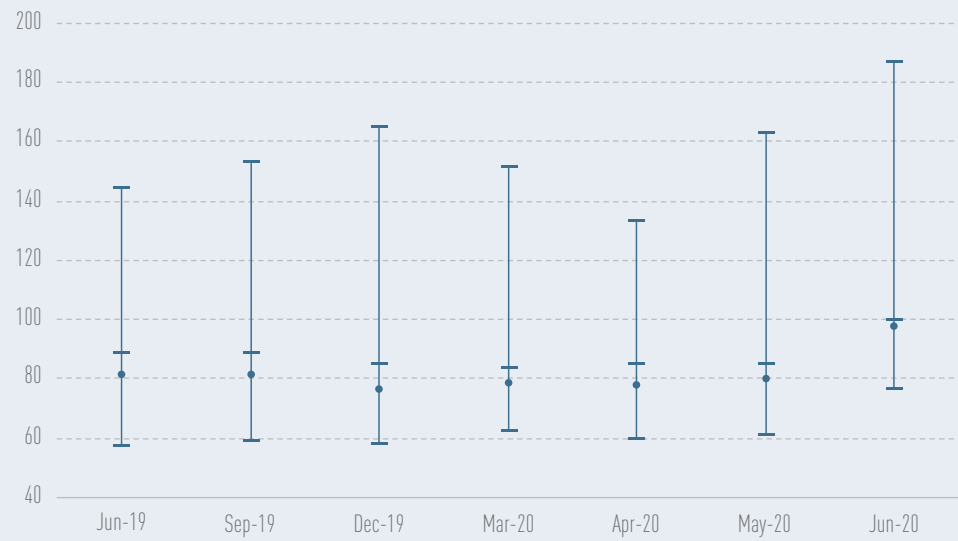


Selected main assumptions:

- Liquid assets can be sold at any time at market price.
- Liquid assets include all central banks' eligible assets.
- Cash-in and cash-out purely reflect a maturing schedule.
- Non-maturing assets and liabilities are constant if deemed more stable (retail and commercial) or are terminated immediately if deemed more volatile (credit institutions and other financials).

Against the current economic background, the following analysis assesses the resilience of banks to face liquidity risk under potential upcoming stress events. The set of different stress assumptions/events mirrors those in the LCR. They show various measures of the survival period metric (i.e. the number of days a bank can survive without having access to further liquidity) under such assumptions. The evolution of the third quartile shows how banks have been affected by the crisis. Actions undertaken by central banks added liquidity to banks' balance sheets, which increased the survival period from the minimum level observed in March and April 2020 to the highest level observed in June 2020 (Figure 55).

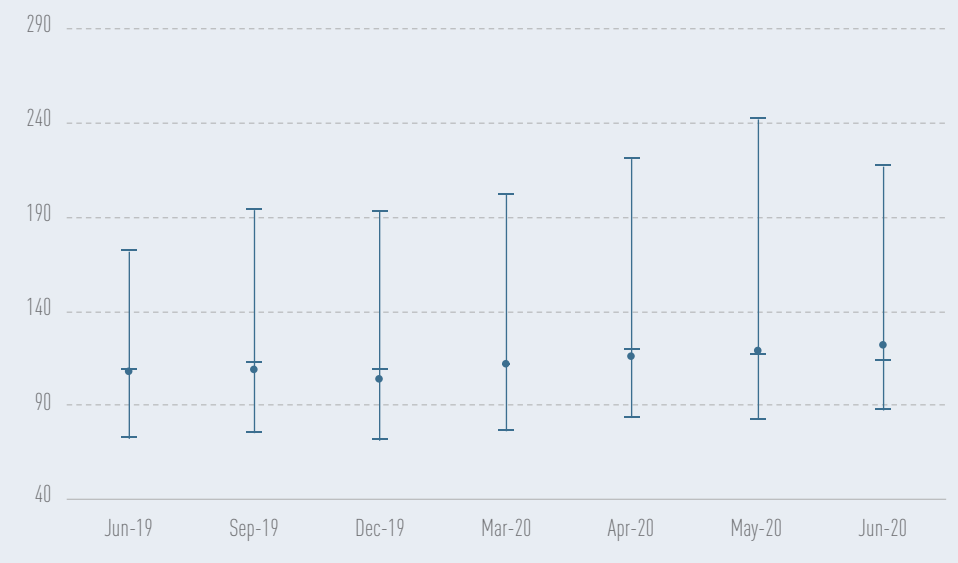
Figure 55: Survival period (in days)
 Source: Supervisory reporting data, EBA calculations.



Finally, the same exercise has been run again, this time assuming a wider definition of liquid assets than that in the LCR, i.e. including additional assets that are central bank eligible and assuming that banks can

pledge, at any time, those assets for cash through central banks. The results of this analysis show that, on average, banks can benefit from an additional 30 days of survival period (Figure 56).

Figure 56: Survival period (in days) including other central bank eligible assets
 Source: Supervisory reporting data, EBA calculations.



4. Capital

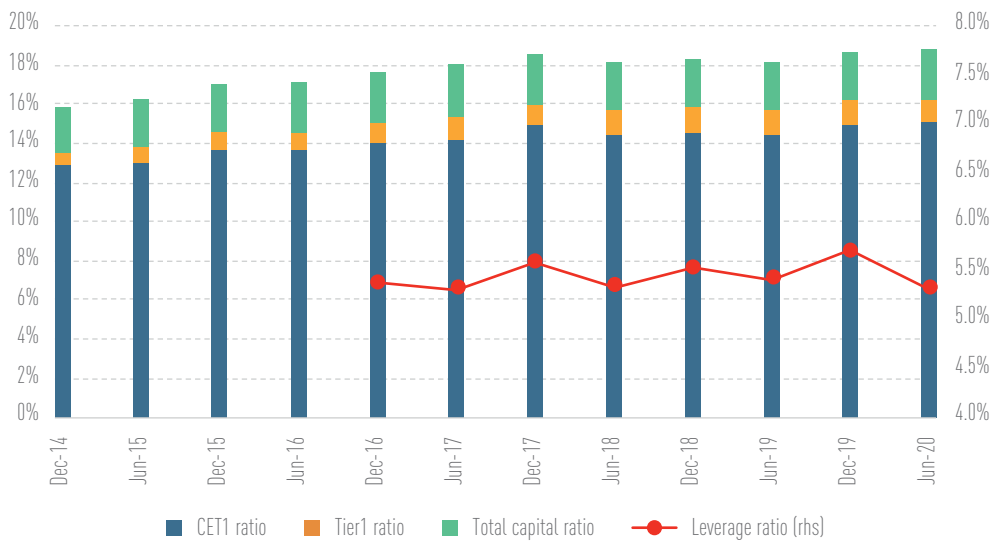
Capital ratios have improved in the past year

European banks have increased their capital ratios due to a higher pick-up in eligible capital than in RWAs in the past year. The increase is a welcome improvement ahead of difficult times when banks will have to absorb the likely increase in credit losses and a contraction in interest and fee income. In June 2020, the average CET1 ratio stood at 15.0% (14.7% on a fully loaded basis), an increase of almost 60 bps compared with June 2019. In the second quarter of 2020, the CET1 ratio increased by 40 bps, recovering some of the decline observed in the first quarter of 2020.

One of the reasons for the increased capital ratios in the second quarter of 2020 was regulatory measures that either preserved capital resources, such as restrictions on dividend payments, or reduced RWAs, mainly in credit risk due to PGS and supporting factors.

Banks' total capital ratio stood at 18.8% in June 2020, an increase of almost 70 bps compared with June 2019. The AT1 component represented 1.3% of RWAs in June 2020 and remained almost unchanged compared with June 2019, the Tier 2 component increased slightly (by 9 bps) and stood at 2.5% (Figure 57).

Figure 57: Capital and leverage ratios (transitional definitions) over time
Source: Supervisory reporting data.

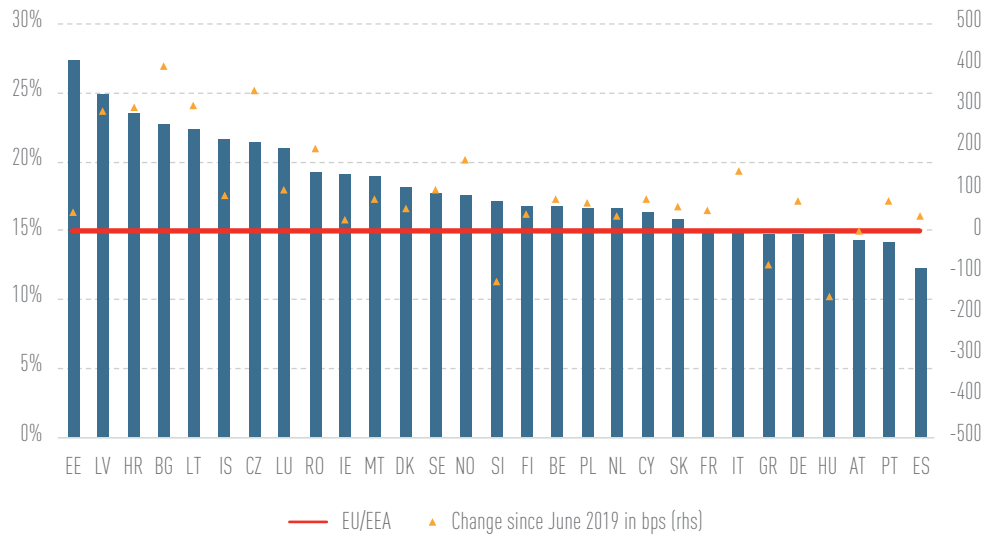


An increase in CET1 ratios over the past year could be observed for most banks. However, it was strongest for banks in countries with the highest CET1 ratios (Figure 58). Banks in Bulgaria and Czechia boosted their CET1 ratios by 397 bps and 339 bps, respectively. In addition, banks in Croatia, Latvia and Lithu-

ania have achieved CET1 increases of close to 300 bps over the past year. In contrast to the general trend of improving ratios, banks in Hungary (-161 bps), Slovenia (-125 bps) and Greece (-84 bps) have suffered significant declines in the past year.

Figure 58: CET1 ratio, by country, in June 2020 (left-hand side), and change in bps since June 2019 (right-hand side)

Source: Supervisory reporting data.

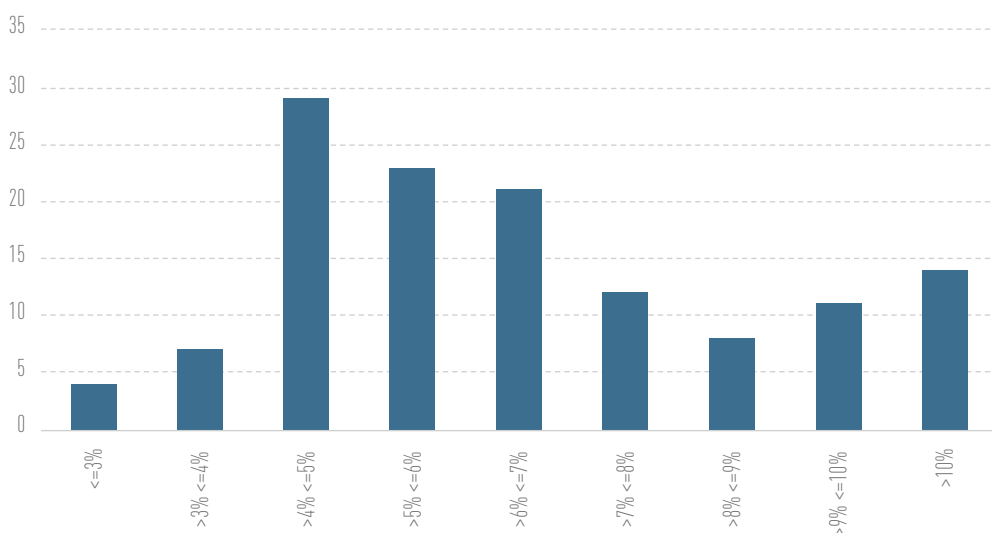


The leverage ratio, however, has decreased by roughly 10 bps in the past year and stood at 5.3% in June 2020. This is due to an increase in total assets, the denominator of the ratio (see Chapter 2.1), which outpaced the increase in Tier 1 capital, the numerator of the ratio. The majority of banks in the sample (70%) reported a ratio of at least 5% in June 2020 and, given this, have a buffer of more than 200 bps above the minimum requirement of 3% (Figure 59). This minimum requirement will become applicable for

EU banks in June 2021, whereas the leverage ratio buffer requirement on G-SIIs will become applicable from 1 January 2023. Another 22% of the banks in the sample reported a buffer of between 100 bps and 200 bps, whereas 5% of the banks were within 100 bps of the minimum requirement. Banks that reported ratios below 3% appear to be public development-oriented credit institutions, which can, provided conditions are met, exclude certain exposures from the calculation of their leverage ratio.

Figure 59: Leverage ratio (transitional definition), number of banks per bucket, June 2020

Source: Supervisory reporting data.



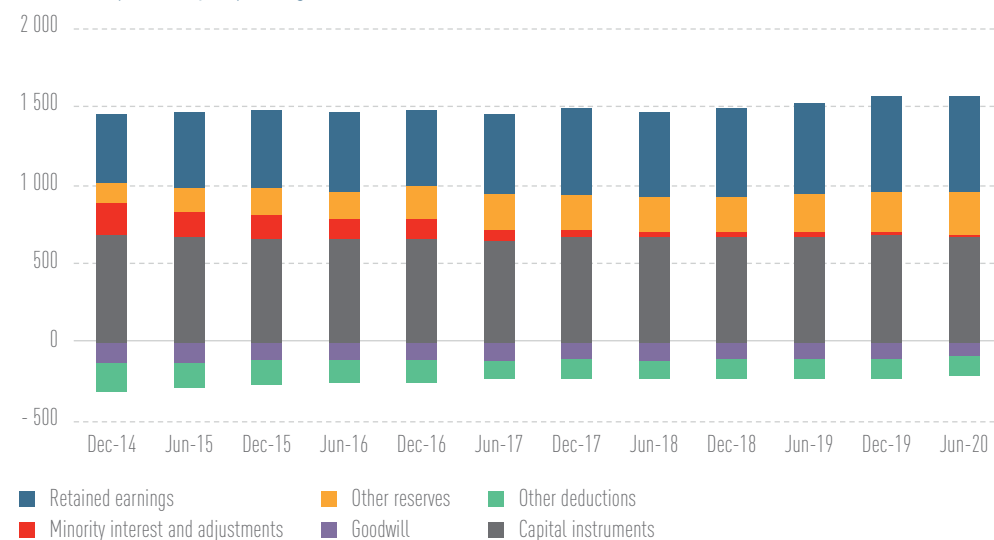
Retained earnings and reserves strengthen banks' capital base

The level of CET1 capital resources in June 2020 had increased by 5% compared with June 2019 (Figure 60). The main drivers of the overall increase were a rise in retained earnings and other reserves and a reduction

in various items that are deducted from CET1 capital. Most notably, retained earnings and reserves increased by 5% and 9%, respectively, and the goodwill-related deductions were 17% lower than their 2019 level. The lower deduction in goodwill can be explained by goodwill impairments that were recognised by banks over the past year.

Figure 60: CET1 capital components (EUR billion), over time

Source: Supervisory reporting data.



The growth rates in retained earnings and reserves are similar to those reported 1 year earlier (7% for both capital components from June 2018 to June 2019) ⁽⁸¹⁾. This suggests that restrictions on dividend payments that were introduced earlier in 2020 as a response to the COVID-19 crisis (see Box 1 in Chapter 1) might have contributed to the increase in reserves of some banks (EUR 21 billion since June 2019). However, it also suggests that the restrictions did not lead to a broad sector-wide increase in capital ratios. This might be due to the temporary nature of the restrictions and some banks' decisions to refrain from including the banned dividends in retained earnings pending a final decision of their supervisors ⁽⁸²⁾. Paid-in capital and share premia have also added to the growing capital resources and have increased slightly by 1% in the past year.

European banks' RWAs increased modestly by 1% compared with June 2019 (Figure 61). Credit risk, which makes up 84% of total RWAs, has remained almost unchanged in the past year. This compares with a growth in total assets of 7% and 3% for loans and advances, respectively. The decoupling of RWA trends from those in assets is not least the result of a change in the composition of banks' assets and various measures introduced in the wake of the COVID-19 crisis that affected the calculation of RWAs.

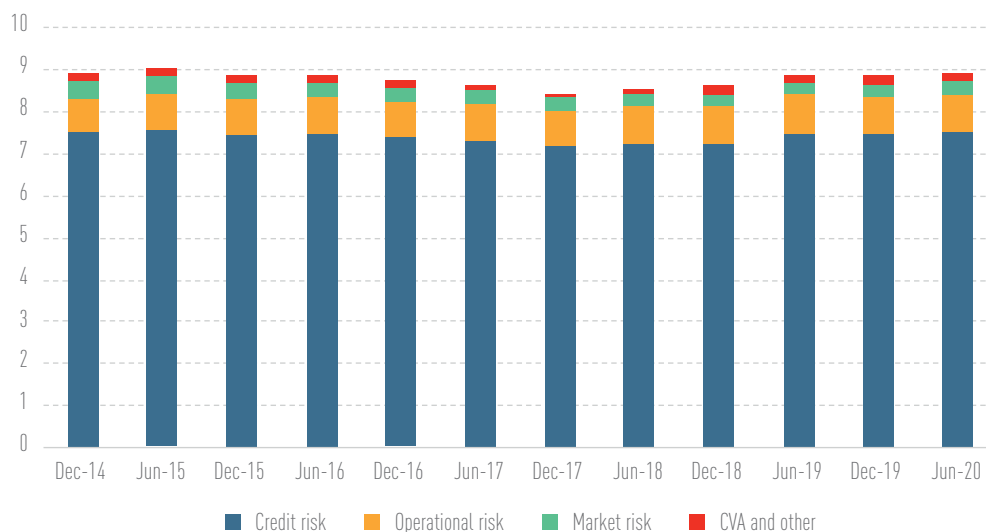
As pointed out in section 2.1, the growth in assets was fuelled by a significant rise in cash balances and central bank reserves, which are in general treated as risk-free in RWA calculations. In addition, public guarantees that were granted to secure the flow of credit to the corporate sector reduced RWAs further, either by substituting the risk weights of the borrower with those of the guarantor or through lower loss given defaults (LGD), resulting from additional guarantees that reduce the amount of losses that have to be borne by banks. Finally, and importantly, the more favourable treatment of loans granted by banks to pensioners or employees with a permanent contract, and changes to the SME supporting factor and the new infrastructure supporting factor resulted in a reduction in RWAs (see Box 1 in Chapter 1).

Operational risk, the second most important RWA component representing 10% of total RWAs, has also decreased by more than 1% since June 2019. Any potential disruptions related to the impact of the COVID-19 crisis would not have been considered in these changes but might affect operational RWAs going forward (for more information on trends in operational risks, see Chapter 6). Market risk, which makes up 4% of total RWAs, has increased significantly by almost 22%, reversing a long-term trend that has been observed since 2015. This increase can be explained by the higher market volatility observed in 2020 as a result of the COVID crisis.

⁽⁸¹⁾ This was, for instance, covered in the EBA's RAR 2019.

⁽⁸²⁾ According to an impact assessment released by the EBA, the potential impact of dividend restrictions would be around EUR 40 billion or 0.5% of RWAs.

Figure 61: RWAs by type of risk (EUR trillion), over time ⁽⁸³⁾
 Source: Supervisory reporting data.



Detailed data on credit risk show that a decrease in RWAs over the past year could be observed across all exposure classes, except for corporate exposures (Figure 62). RWAs calculated for exposures to central governments and institutions declined strongly (4% and 5%, respectively). These two exposure classes, however, make up only 5% of total credit risk RWAs each. Given the weight of corporate and retail exposures (52% and 28% of credit risk RWAs, respectively), the overall RWA trend was mainly driven by these two exposure classes. Corporate RWAs have increased by 0.7% since June 2019 and retail RWAs have declined by 2.2%, even though loans to households and NFCs have increased. RWAs related to other exposures, including exposures associated with particular high risk, have also declined but at a slower pace (-0.7%).

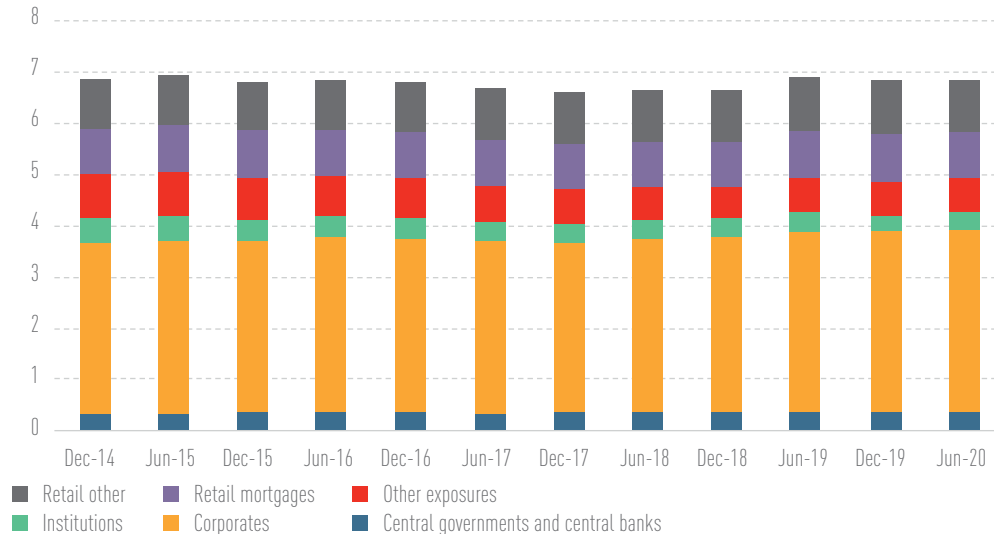
In addition to the RWA-reducing effect of several changes to the prudential treatment of certain exposures, the parameters used to calculate capital requirements for banks with internal models contributed to the decline in RWAs ⁽⁸⁴⁾. From June 2019 to June 2020, the average probability of default (PD) for exposures to corporates declined by 20 bps (an average PD of 4.3% in June 2020) and by 33 bps (average PD of 4.8%) for retail exposures. For LGD, the decline in the past year has been even stronger with -66 bps for corporates (an average LGD of 32%) and -193 bps for retail exposures (an average LGD of 29%). Public guarantees might explain part of the changes in LGD, whereas improvements in the credit risk of borrowers in former years might have contributed to the changes in PD.

⁽⁸³⁾ CVA: credit valuation adjustment(s).

⁽⁸⁴⁾ The changes to prudential treatment would be amendments of the CRR, including the more beneficial treatment of loans to pensioners or employees with a permanent contract, and the SME- and infrastructure-supporting factors (see Box 1 in Chapter 1).

Figure 62: Credit risk RWAs, by main (loan) exposure classes, excluding for example securitisation and equity holding (EUR trillion), over time

Source: Supervisory reporting data.



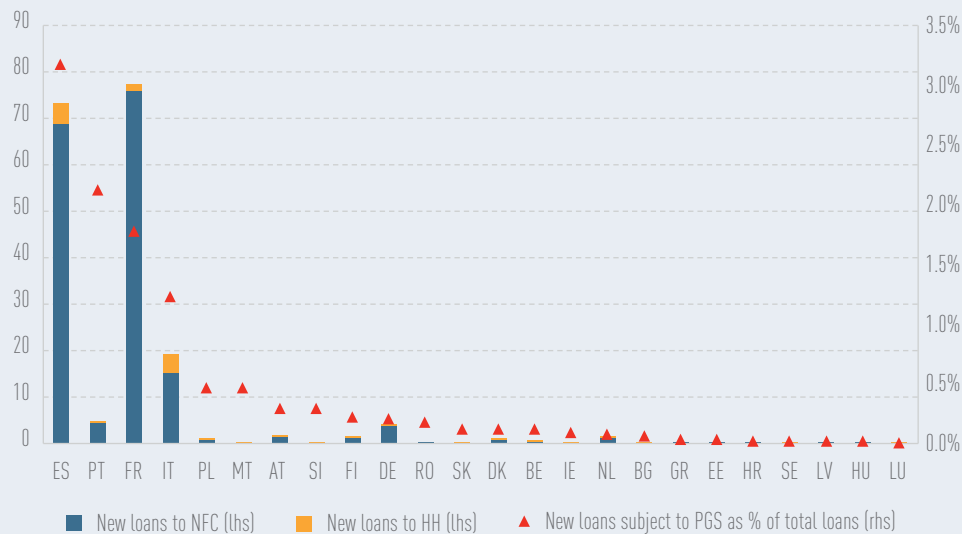
Box 9: Usage of PGS in banks' lending ⁽⁸⁵⁾

In June 2020, newly originated loans subject to PGS in Europe amounted to around EUR 181 billion. This volume represented 1.2% of all loans that were reported by the banks in the sample ⁽⁸⁶⁾. Public guarantees were granted predominantly for loans to NFCs, which make up almost EUR 170 billion or 94% of all new loans subject to PGS. Only EUR 10 billion of new loans subject to PGS (6% of all loans subject to PGS) were granted to households. PGS had a very uneven impact across European countries.

Although PGS were absent from or not significant in most European countries, their impact on banks' lending was rather significant in some countries (Figure 63). For banks in some countries, however, the figures might not necessarily provide the full picture of the use of public guarantees. This is due to the partial or delayed implementation of the COVID-19 reporting guidelines in some countries and the fact that banks applying IFRS might derecognise loans that are fully guaranteed, as the risks and rewards would remain with the guarantee provider.

Figure 63: Newly originated loans backed by public sector guarantee schemes (EUR billion), by country, June 2020

Source: Supervisory reporting data.



⁽⁸⁵⁾ See the EBA's thematic note on moratoria and government guarantees.

⁽⁸⁶⁾ In total, 127 banks reported data on newly originated loans subject to PGS (28 of which were subsidiaries of other EU banks).

Public guarantees have the potential to significantly reduce banks' RWAs. In June 2020, banks reported RWAs of EUR 29 billion for exposures subject to PGS of EUR 162 billion. This implies an average risk weight of around 18% (calculated as RWAs over exposure value), which can be compared with an average risk weight for banks' NFC exposures of 54% (89% for those banks applying the standardised approach when calculating RWAs, and 41% for banks using the IRB approach).

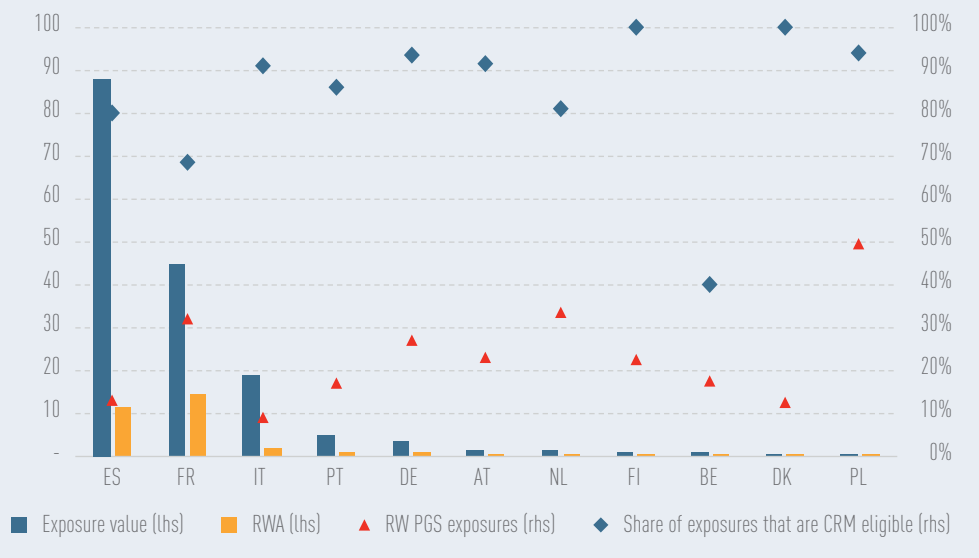
The impact of PGS can be approximated by applying the average risk weight for banks' NFC exposures of 54% to banks' exposures subject to PGS. The results suggest an overall RWA reduction of around EUR 58 billion for the banks that formed part of this analysis. There were significant differences between the exposure amounts and the RWAs among the banks and countries (Figure 64). In Italy, for example, RWAs only represented 9% of the PGS-related exposure value, and banks in Denmark and Spain reported this share to be 13%.

At the other end of the spectrum, banks in Poland reported an implied risk weight of 50%. The main reasons for the observed differences were variations in the credit risk mitigation (CRM)-eligibility of exposures subject to PGS (the share of CRM-eligible exposures ranges from 40% for banks in Belgium and 69% for banks in France to 100% for banks in Denmark and Finland) and in the terms and conditions of PGS (such as coverage level and the effective application of the public guarantee only after a specific period after loan origination).

In addition, several guarantee providers are counterparties that are not recognised as public sector entities and therefore do not receive a risk weight of 0%. In other cases, banks are still assessing whether certain public guarantees qualify as eligible for CRM purposes according to the CRR and have not assumed any CRM in their June 2020 RWA calculations. Moreover, given the continuing growth of the volume of loans subject to PGS, the RWA-reducing impact might be higher in the quarters to come.

Figure 64: RWAs and implied risk weight for PGS exposures (EUR billion), by country, June 2020

Source: Supervisory reporting data.



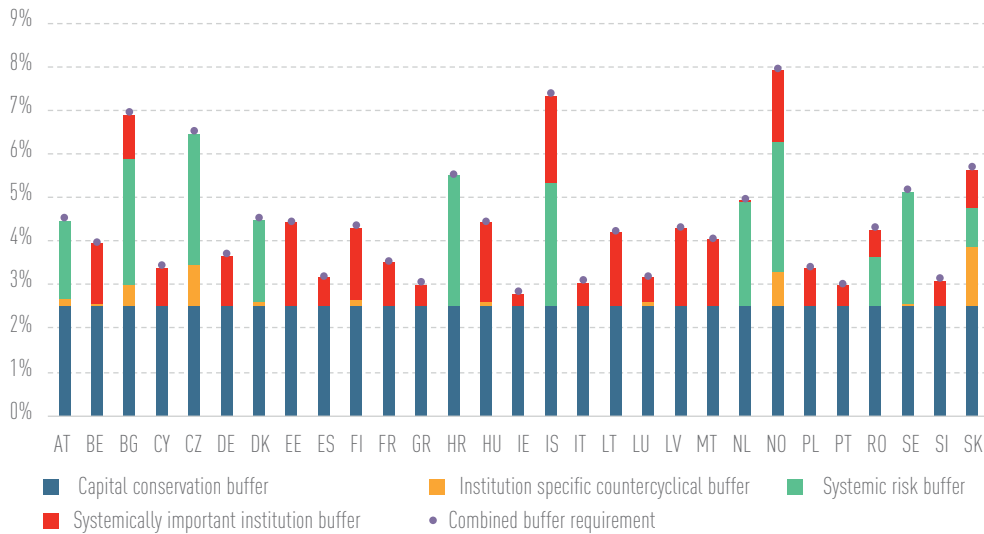
Buffer requirements relaxed in response to the crisis

In addition to minimum capital requirements, banks are also required to hold capital buffers to guard against systemic or other risks in the banking sector. On average, the combined buffer requirement in June 2020 stood at 3.7% of RWAs (Figure 65). Compared with June 2019, the combined buffer requirement has decreased by roughly 20 bps due to the release of CCyB requirements in many

Member States and some reductions in SyRB requirements. The CCyB has been reduced to close to 0% of RWAs and the SyRB has been reduced to 0.4% of RWAs in June 2020. Other buffer requirements have remained unchanged in the past year, with the capital conservation buffer (CCB) being set at 2.5% of RWAs according to primary legislation and the buffers for global and other systemically important institutions (G-SIIs and O-SIIs) amounting to 0.7% of RWAs.

Figure 65: Capital buffers by country (percentage of RWAs), June 2020

Source: Supervisory reporting data.



Capital buffer releases were not the only capital-related measures that aimed to increase banks' ability to provide new lending to the economy. Additional measures include the decision made by the SSM to allow banks to cover P2R with capital instruments other

than CET1 and the restrictions on the payment of dividends for the year 2019 ⁽⁸⁷⁾.

⁽⁸⁷⁾ An impact assessment released by the EBA in May this year estimated the potential combined impact of these measures at around 1% of RWAs on average in the EU.

Box 10: Capital buffers and their usability

Lower capital buffer requirements, combined with increased capital positions as described above, mean that banks are in a better position to provide new lending before reaching overall capital requirements (OCR) and avoid a breach in capital requirements ⁽⁸⁸⁾.

On top of the OCR and P2G, banks hold additional capital according to internal capital targets and risk appetite. This management buffer amounted to EUR 318 billion or 3.63% of RWAs in June 2020 ⁽⁸⁹⁾. A comparison with figures in December 2019, which were used in the COVID-19 impact assessment released by the EBA in May this year, shows that banks increased their management buffer by almost 60 bps in the first half of 2020 (in December 2019, banks held a management buffer of around EUR 270 billion or 3.05% of RWAs).

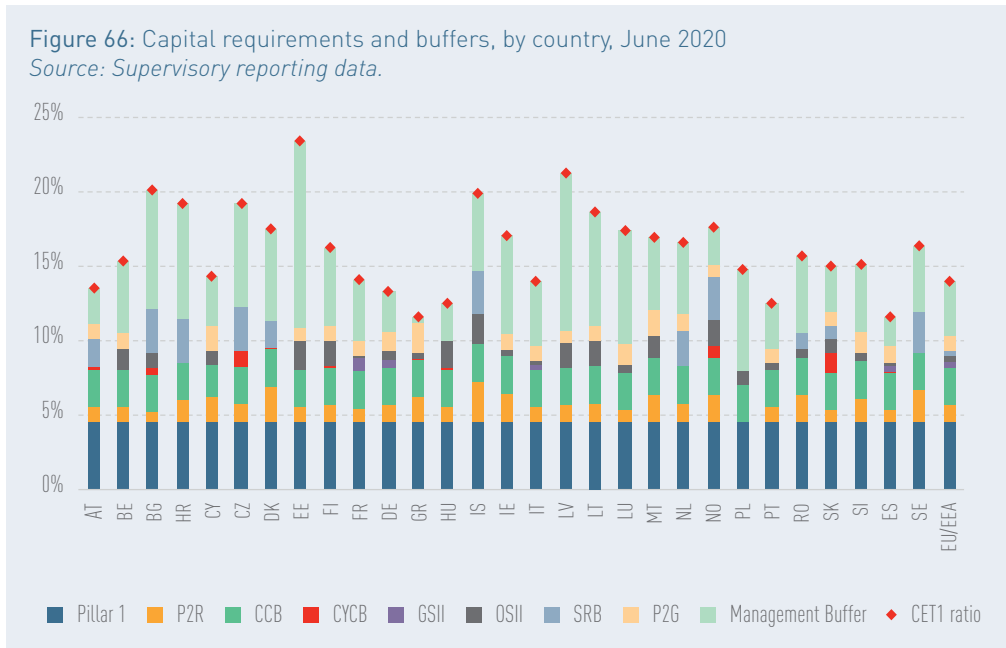
Although management buffers for many banks are sizeable, there are wide discrepancies among countries and banks. In addition to banks' management buffers, banks could also potentially use capital reserved for P2G and other buffer requirements to

provide financial support to their customers or to withstand additional losses on existing exposures. A full use of P2G capital across all banks in the EU would provide CET1 capital of EUR 88 billion (which is equivalent to around 1% of RWAs on average in the EU). In the event of banks' capital falling below the combined buffer requirement (CCB, CCyB and systemic buffers), banks could make distributions only within the limits of the maximum distributable amount (MDA) as defined by the CRR.

Although regulators and supervisors have announced that a flexible approach should be adopted to approve capital conservation plans that banks are legally required to submit if they breach the combined buffer requirement, doing so is still stigmatised and surrounded by uncertainty as regards its consequences (see Box 1 in Chapter 1). For example, the potential impact on banks' ability to access the funding markets at reasonable costs seems to be a key concern for banks, which would ultimately have to refill capital buffers after the crisis. The results of the EBA's stress test in 2021 could possibly provide some clarity on the expectations related to the rebuilding of capital buffers after the crisis. As the COVID-19 pandemic provides the first case of use of the buffer framework, the lessons learnt during the unfolding crisis could also inform a potential redesign if deemed necessary.

⁽⁸⁸⁾ Going below OCR levels would trigger the application of rules on the MDA.

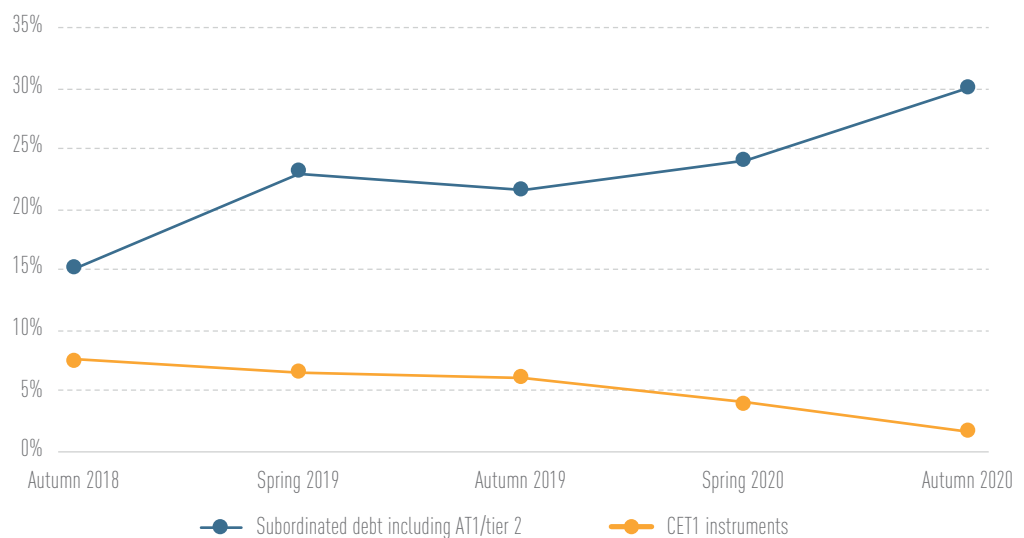
⁽⁸⁹⁾ The analysis in this box is based on a reduced sample of 157 banks, which is the one used for the impact assessment released by the EBA.



Despite the possible pressure on capital due to expected credit losses, banks do not expect to issue more CET1 instruments in the near future. Based on the RAQ results, the percentage of banks that envisage issuing CET1 instruments in the following 12 months decreased to 2%, the lowest level on record since the RAQ was launched in 2015 (Figure 67). However, more banks intend to issue

AT1 and Tier 2 debt instruments in the year ahead. Among other factors, this might be explained by the increased investor demand for such instruments as well as banks' ability to use these instruments to comply with P2R following the ECB decision to frontload Article 104a of the CRD (see Box 1 in Chapter 1 and see Chapter 3.1).

Figure 67: Percentage of banks that intend to issue capital instruments in the next 12 months
 Source: EBA RAQ for banks.



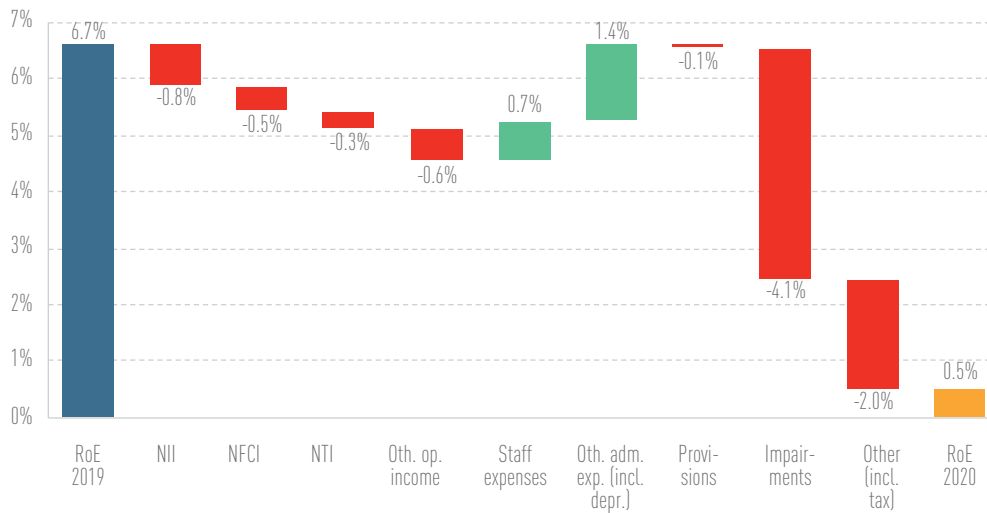
5. Profitability

Since the GFC, average profitability levels have been below the estimated cost of equity (CoE), which most of the banks that submitted their responses to the autumn RAQ currently estimate at between 8% and 10%. The COVID-19 outbreak has just heightened the profitability challenge. In June 2020, the average return on equity (RoE) of EU banks

stood at 0.5%, down from 6.7% in June 2019. The decline is largely explained by the surge in impairment costs and, to a lesser extent, by the contraction in revenues. In contrast, operating expenses have registered a positive contribution to the RoE due to their contraction YoY (Figure 68).

Figure 68: Contribution to the fall in RoE of the main profit and loss (P&L) items, calculated as a ratio to total equity (2019-2020)

Source: Supervisory reporting data.



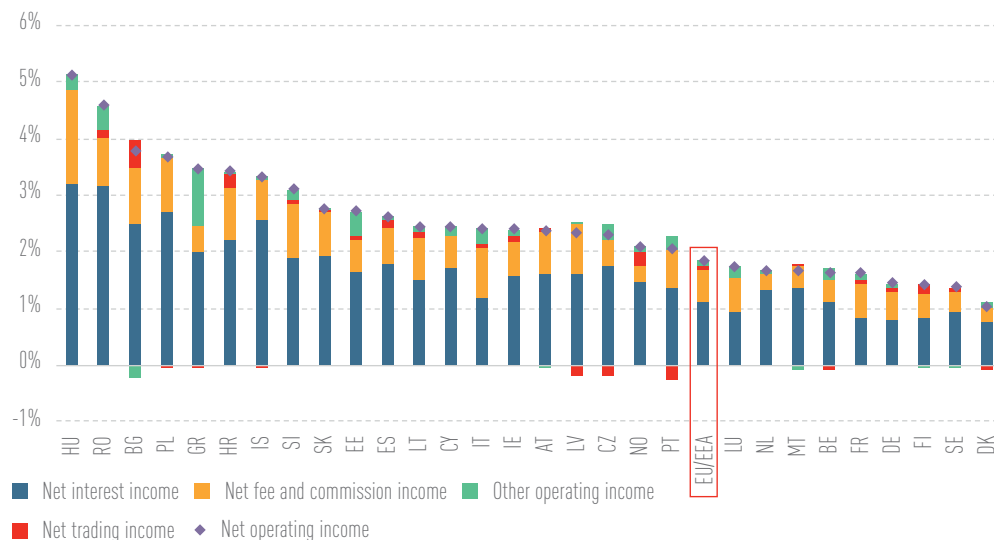
Revenues are under additional pressure

A low interest rate environment and intense competition in several countries have resulted in a rather subdued increase in banks' revenues over the past few years. In 2020, the sharp GDP contraction and the lingering low interest rate environment have driven net operating income (NOI) down by 3.2%. The NOI for the first 6 months (annualised) represents 1.85% of total assets compared with 2.05% during the same period in 2019. In ad-

dition, when equity is used as denominator, the variations in the ratio occur in the same direction (from 31.8% in June 2019 to 29.8% in June 2020).

In general, CEE banks present elevated ratios of NOI to total assets. For instance, in Bulgaria, Hungary, Poland and Romania this ratio is above 3.5%. In contrast, for banks in countries where interest rates are lower, such as Denmark, Germany, Finland and Sweden, this ratio is below 1.5% (Figure 69).

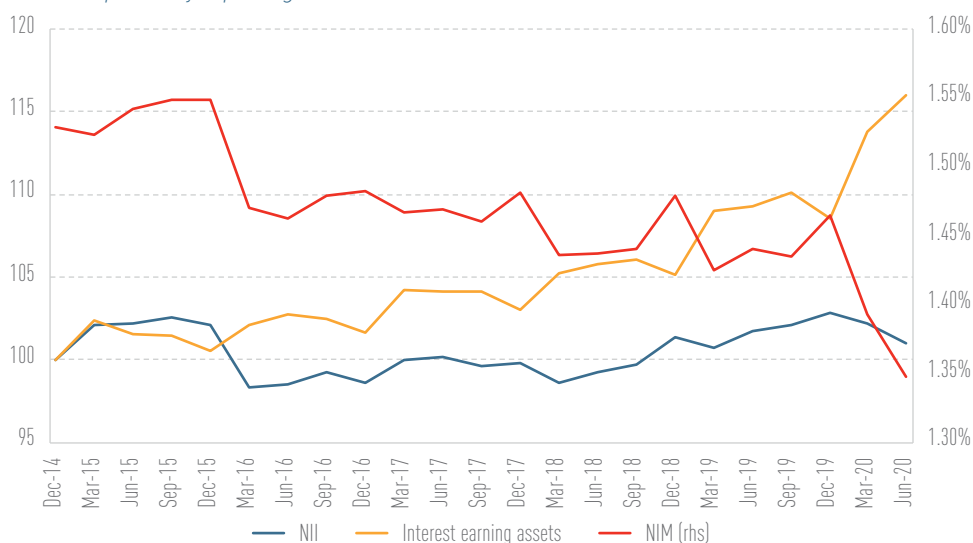
Figure 69: NOI as a percentage of total assets, June 2020
 Source: Supervisory reporting data.



Net interest income (NII) continues to account for the largest share of operating revenues, having reached around 60% in June 2020. Although lending volumes have increased substantially over the past 12 months, driven by NFC lending, NII contracted by 0.7% being dragged down by decreasing margins. The average net interest margin (NIM) reached its minimum level since data have been available in June 2020 (1.35%, 9 bps less than in June 2019; Figure 70). However, a non-negligible part of the decrease in margins can be attributed to a statistical effect. The sharp increase in lending in the first half of 2020 (see section 2.1) is immediately reflect-

ed in the denominator, whereas, until June, this new lending had only accrued a small fraction of the annual interests that can be booked as NII. This would be particularly relevant for second quarter data, especially in those cases in which a huge increase in lending took place in June. In any case, the low interest rate environment and the lower interest rates of loans with embedded public guarantees might presumably add pressure on banks' margins. Moreover, banks whose loans under moratoria do not accrue interests during the moratorium period might be additionally hit.

Figure 70: Evolution of NII, NIM and interest earning assets (December 2014 = 100)
 Source: Supervisory reporting data.

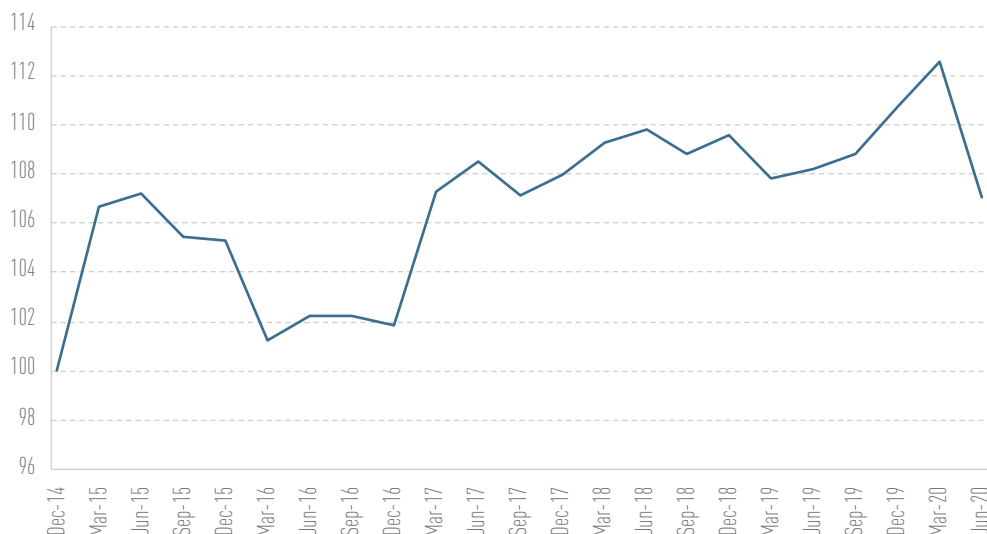


In the short and medium terms, NII is likely to experience mounting pressures. Margins are not expected to improve under the current accommodative monetary policy and the increasing amount of publicly guaran-

teed lending (for more information on guaranteed lending, see section 2.2 and Box 9 in Chapter 4). Moreover, the current economic contraction will arguably lead both NFCs and households to postpone investment projects

Figure 71: Evolution of NFCI (December 2014 = 100)

Source: Supervisory reporting data.



or big spending decisions and might therefore weigh on lending volumes. In this regard, the growth of NFC lending, which has been the main driver of increasing interest-earning assets in 2020, is expected to slow down once NFCs' build-up of precautionary liquidity buffers fades away and public guarantees expire ^[90].

Net fee and commission income (NFCI), the second most important component of NOI, reaching around 30% of total NOI in June 2020, has also gone down in 2020 (-1.7%). The decrease was concentrated entirely in the second quarter of 2020 (-4.9% QoQ), coinciding with the toughest confinement measures in most EU countries (Figure 71).

Going forward, NFCI might recover some of the lost ground. Although fee income from new lending might remain subdued, once economies are back on track and consumption returns to its pre-crisis levels, fee in-

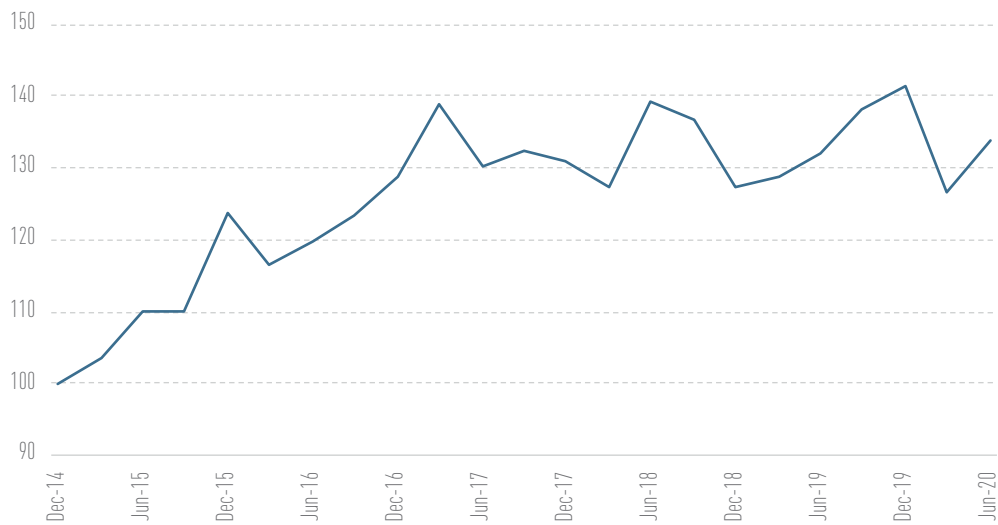
come from payment services is likely to follow suit. If some of the trends observed during the confinement period such as the reduction in the use of physical money and the increase in online shopping remain, this source of income might increase further. Indeed, RAQ results show that increasing NFCI was the second most highlighted area through which banks aim to increase profitability.

Moreover, as central banks are likely to maintain the accommodative stance of monetary policy for even longer than expected prior to the COVID-19 outbreak, certain clients might shift parts of their savings from zero- or close-to-zero-yielding term deposits to riskier products. In that case, the volume of banks' off-balance-sheet assets under management (AuM) would increase not only because of valuation effects but also because of new fund inflows (Figure 72).

^[90] For further details, see the ECB's euro area bank lending survey for the third quarter of 2020.

Figure 72: Evolution of off-balance-sheet AuM (including customer resources distributed but not managed) over managed

Source: Supervisory reporting data.



Nonetheless, the low capital intensity of payment services and asset management activities in comparison with lending has made the first two areas a gateway to the financial and banking sectors for many FinTech firms. Looking ahead, the intensity of competition in these segments is very unlikely to fade away (for more information on FinTech, see Box 12 in this chapter).

Net trading income (including results from assets at fair value through profit and loss) has registered volatile behaviour due to financial market turmoil. Although in 2019 its contribution to the RoE (annualised for the first 6 months) was 1.5 p.p., in 2020 it fell to 1.2 p.p. Banks highly dependent on this item might suffer sharp variations in their profitability levels.

The reduction in operating costs is not enough to offset the increase in impairments

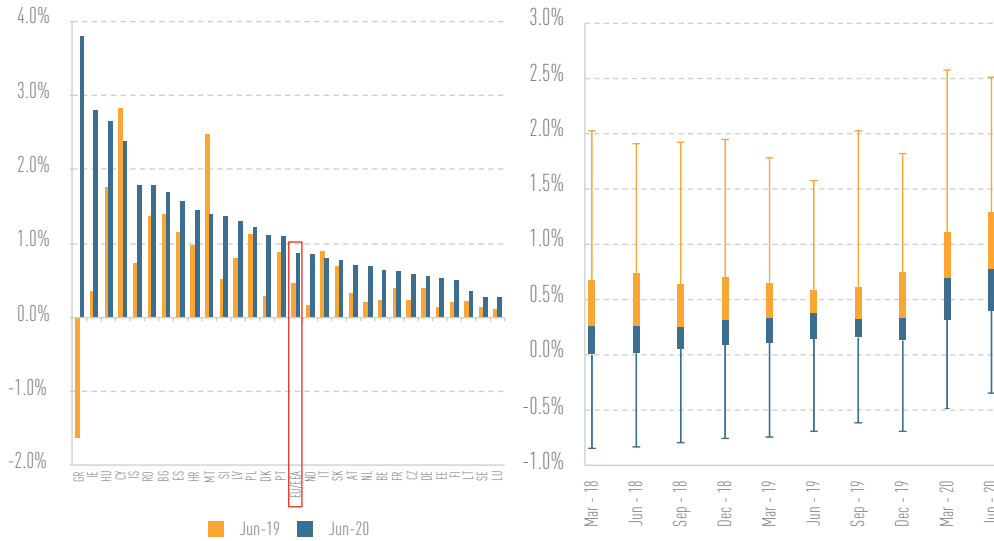
Until 2018, the decline in impairments was the main driver of the increase in profitability. Since then, impairments have been

trending upwards while operating income has remained subdued. The increase in impairments has been particularly sharp in 2020. As banks recognised expected credit losses, impairments have multiplied by more than 2.5 times compared with 2019 levels. They are responsible for a RoE contraction of 6.6 p.p. (annualised for the first 6 months), compared with 2.5 p.p. in 2019. The impact of impairments in the RoE has been particularly pronounced for Cyprus, Greece, Spain and Ireland, where impairments have subtracted more than 10 p.p. of the RoE.

The cost of risk increased in the first half of 2020, which also reflected the expectation that asset quality would worsen. Although from June to December 2019 it had remained stable at around 50 bps, the cost of risk jumped to 81 bps in March and 86 bps in June 2020. This indicator also shows a significant dispersion across countries, which can be attributed to several factors, such as the differences in banks' exposures to the sectors and countries most affected by the pandemic or to a variety of IFRS 9 provisioning models, which under the current uncertain environment yield different results.

Figure 73: Cost of risk by country (left) and dispersion (right)

Source: Supervisory reporting data.

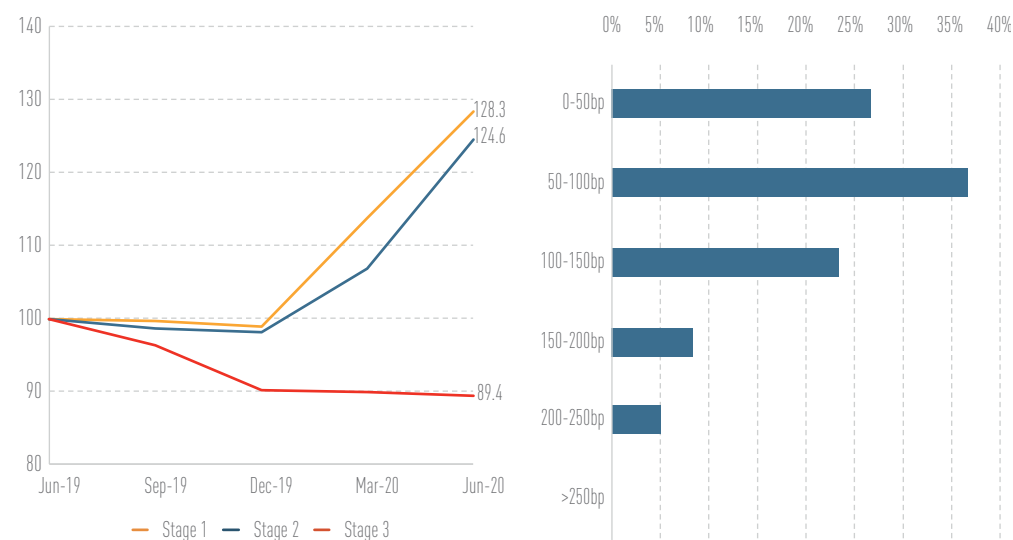


Banks allocated their new provisions mainly to stage 1 and stage 2 loans. Impairments increased by as much as 28.3% for stage 1 and 24.6% for stage 2 between June 2019 and June 2020. Impairments for stage 3 decreased during the same time horizon by around 10%. However, coverage ratios for stage 1 and stage 2 loans remained unchanged at 0.2% and 3.8%, respectively, whereas coverage for stage 3 has decreased by around 80 bps during the past year (46.7% in June 2020) (Figure 74).

Going forward, banks responses to the RAQ reveal that most of them expect their cost of risk to be below 100 bps in the current financial year. Around 25% of banks responded that they expect it to be below 50bps. Nonetheless, as banks provided their responses before the second wave of the pandemic, these figures might be rather optimistic (Figure 74).

Figure 74: Accumulated impairments by stage (June 2019 = 100) (left) and banks' cost of risk expectations for the current financial year (right)

Source: Supervisory reporting data.

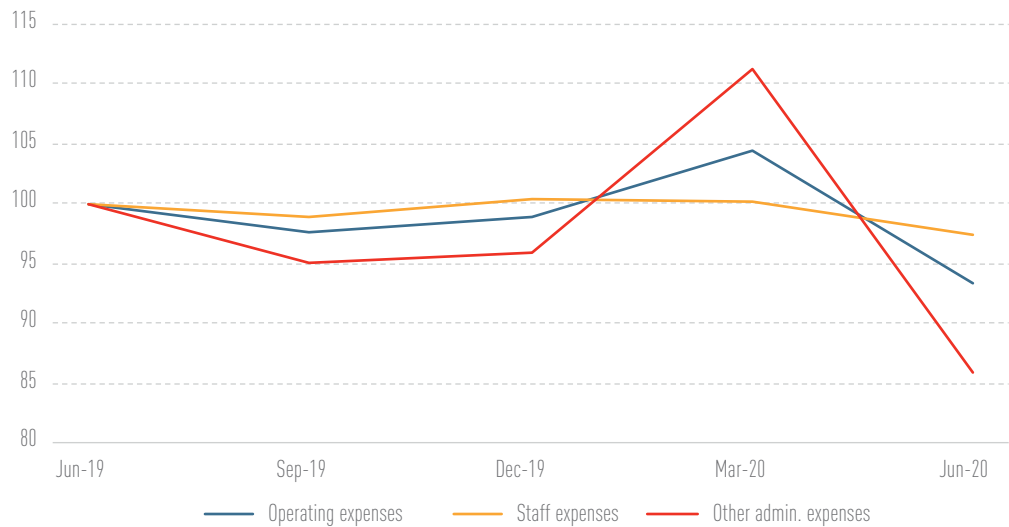


The increase in impairments has been partially offset by the decrease in operating expenses, which have fallen by 6.6% in 2020. However, the decline was almost exclusively concentrated in the second quarter of 2020,

when most of the EU countries were subject to severe lockdowns (Figure 75) ^(*).

^(*) The declining trend of other administrative expenses is also partially due to a change in reporting, as until June 2020 some banks reported cash contributions to resolution funds and deposit guarantee schemes as part of other administrative expenses.

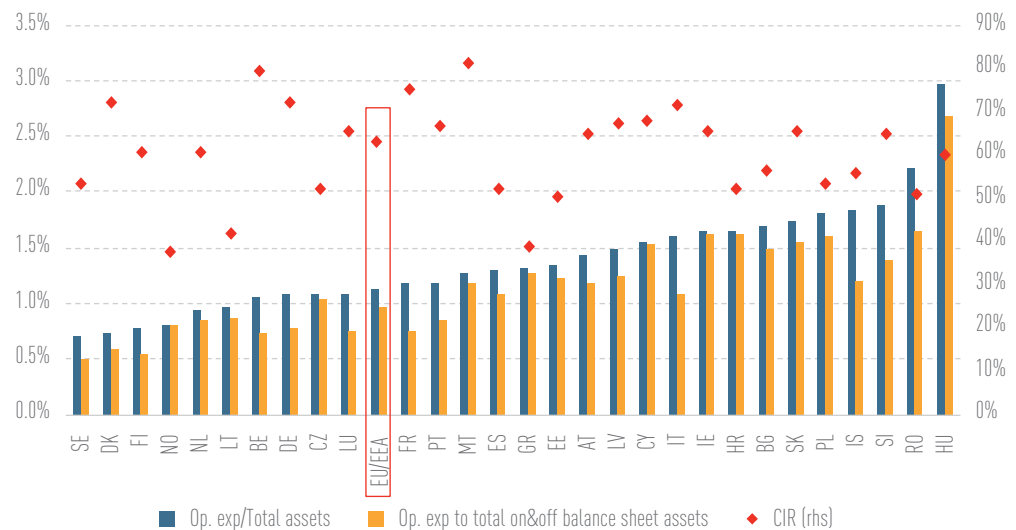
Figure 75: Recent evolution of operating expenses (June 2019 = 100)
 Source: Supervisory reporting data.



The ratio of operating expenses to total assets fell to 1.16% from 1.33% in 2019 (for the first 6 months of each year, annualised; Figure 76). A similar trend can be observed when total assets are replaced in the denominator of this ratio by total equity (20.7% in 2019; 18.7% in 2020). As in previous years, banks domiciled in northern European coun-

tries have the lowest operating expenses to total assets ratios (below 0.8%). When off-balance-sheet AuM are added to the denominator, banks from France and Germany also appear among those with the lowest ratio. However, in terms of revenues their ratios are not among the highest ratios (Figure 69).

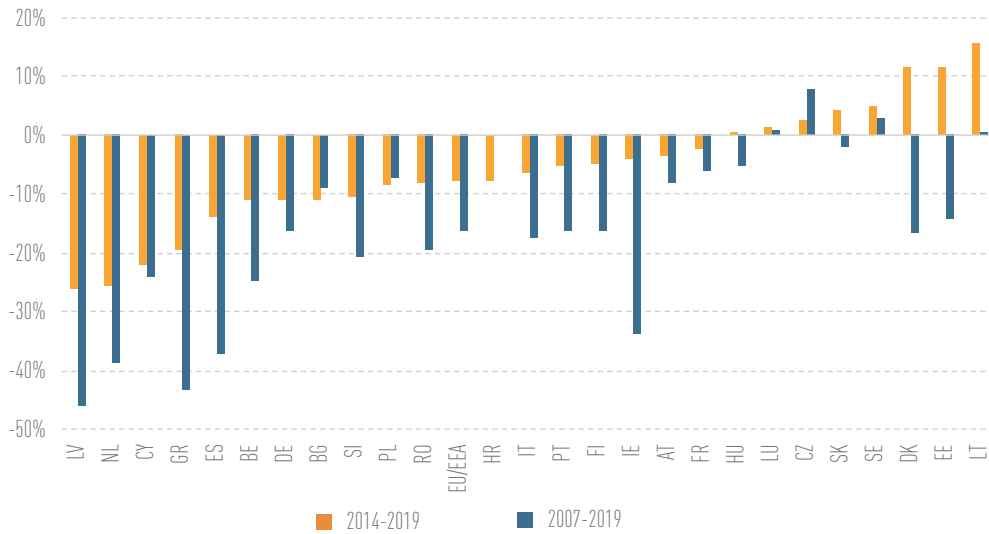
Figure 76: Operating expenses to total assets, operating expenses to total on- and off-balance-sheet assets and cost to income ratio, June 2020
 Source: Supervisory reporting data.



The main component of operating expenses is staff expenses, which represent around 55% of total operating costs. In 2020, their weight over total assets has fallen to 0.64% from 0.71% the year before. The decrease might be the result of the continuous reduc-

tion that has taken place in EU banks' payrolls over the past few years, with the number of bank employees in the EU-27 falling by 1.2% in 2019 and by 7.9% between 2014 and 2019 (Figure 77).

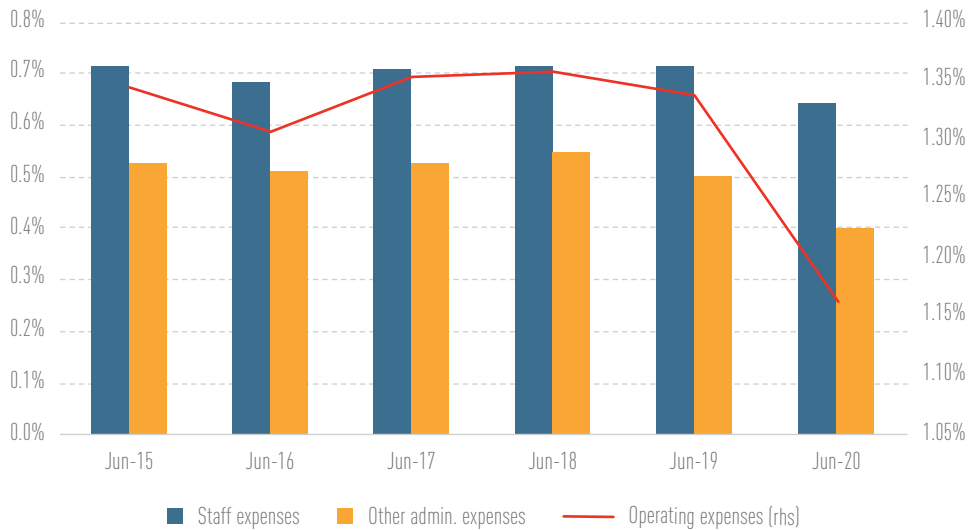
Figure 77: Variation in the number of bank employees
Source: ECB statistical data warehouse.



However, the recent drop in staff expenses seems driven mostly by factors related to the confinement period, such as lower employee compensation for reaching sale targets or for business travel, furlough schemes that may have saved some personnel costs to banks and delays in the on-boarding of new person-

nel. Once the pandemic is over, it remains to be seen to what extent banks will be able to contain their staff costs. In any case, amid the need for further adjustments in these expenditures, banks have announced further plans to reduce staff costs in recent months.

Figure 78: Evolution of operating expenses to total assets ratio over time
Source: Supervisory reporting data..



Although other administrative expenses that are different from staff expenses have a lower weight over operating expenses (around 35% of total expenses), they are mainly responsible for the decrease in operating expenses in 2020. Although in June 2019 they represented 0.50% of total assets (YtD annualised), in June 2020 this figure fell to 0.40%. However, like overall operating costs, most of the decrease was observed during the second quarter of 2020 (-22.4% QoQ), after a spike in the first quarter of the year (+14.6% QoQ) (Figure 75). This spike is presumably

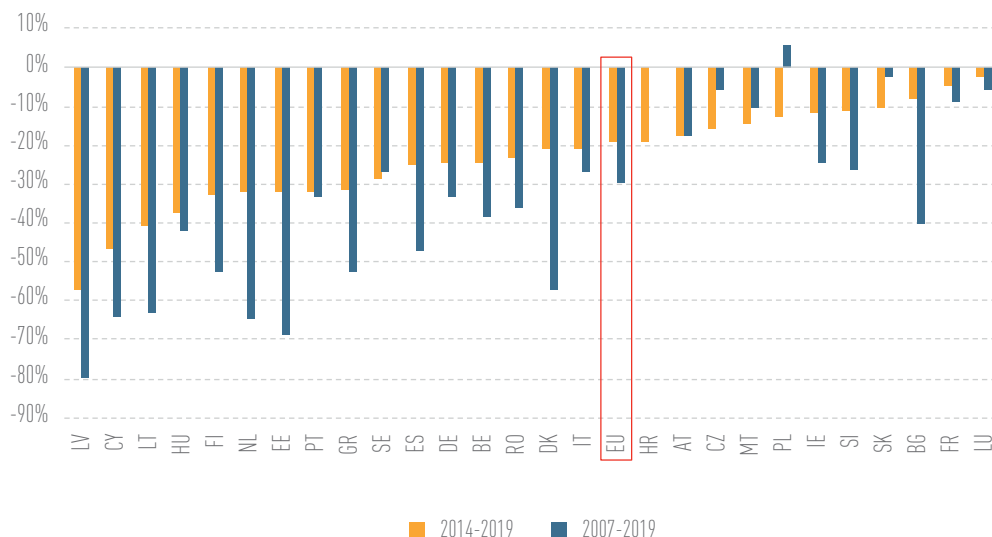
due to banks' efforts to prepare their operational structures for the lockdown, whereas factors such as the closure of many branches and offices might explain the plummet from March to June ^[92].

^[92] The declining trend of other administrative expenses is also partially due to a change in reporting, as until June 2020 some banks reported cash contributions to resolution funds and deposit guarantee schemes as part of other administrative expenses.

Although some cost savings during the confinement might reappear once the pandemic is over, some trends observed during the lockdown, such as the increasing client use of digital channels to the detriment of physical branches, might remain (Figure 79). In this context, banks that were less inclined to

reduce their physical presence or that were less digitally savvy might be forced to embark on comprehensive ICT and branch reduction programmes. This could also be fostered by recent regulatory developments dealing with the change in the prudential treatment of software assets.

Figure 79: Variation in the number of branches
Source: ECB data warehouse.



The reduction in operating expenses might have also been the result of delays in the execution of new investments. Although the postponement of these actions might have avoided adding additional strain to banks' operational capacities, at the same time it might have resulted in delays in the necessary streamlining of operational structures.

The combination of the ratios of operating income and operating expenses to total assets could serve as an indicator of the resilience of banks' profitability levels. Nonetheless, operating income includes some very volatile elements, such as gains or losses on derecognition of financial assets or on exchange differences. Moreover, higher NII could be associated with higher risk-taking and thus higher impairments. Considering these factors, an indicator of 'core profitability' could be built by subtracting from core revenues (i.e. NII, NFCI and NTI) operating expenses and impairments, all expressed as a percentage of total assets (Figure 80).

In 2020, the core profitability indicator has revealed that CEE banks are the ones presenting a higher level of profitability resili-

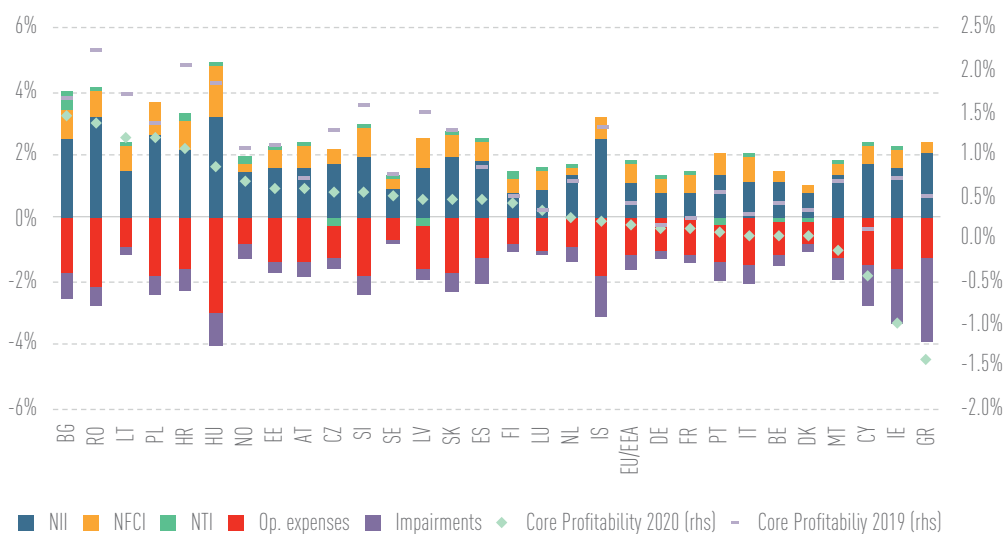
ence. Higher central bank rates and a focus on riskier segments such as SMEs and consumer lending are compensating for the effects of higher operating expenses as a percentage of total assets.

In contrast to CEE banks, their peers in countries such as Greece, Ireland and Cyprus have high impairment costs that place them at the bottom of the indicator, even though they are not the worst performers in terms of operating income or operating expenses. It may make sense to also look at the core profitability of 2019, when the dispersion in impairments was far lower. In this case, Danish, French and German banks also appeared among the worst performers.

Provisions, including those for pensions and other long-term employee benefits and those related to litigation and other legal issues, increased by 33% in 2020. As a result, provisions detracted 56 bps of RoE (44 bps in 2019). Although in previous years the impact of goodwill adjustments on profitability has not been substantial, it has had a negative impact of 165 bps of RoE in 2020 (24 bps in 2019).

Figure 80: Core profitability and its main components, 2020 versus 2019

Source: Supervisory reporting data.



Box 11: Mergers and acquisitions (M&A) in the banking sector

Scope for consolidation in the EU banking sector has been identified for a long time. Economies of scale and scope appear not to be utilised in the sector, and the current business model of many banks does not ensure sustainable profitability in the long term. The banking sector can achieve consolidation by various means, such as through deleveraging, through restructuring, via the exit of non-viable banks from the market, and via M&A. Most stakeholders involved have considered M&A desirable to address overcapacities in some banking markets, to become more cost-efficient, to achieve economies of scale and to improve competitiveness in an increasingly digital financial sector. Nonetheless, there has been very little M&A activity in recent years, and the volume of M&A transactions was on a steady decline in the euro area until 2019 ^[93]. However, the COVID-19 crisis may be a trigger for more meaningful M&A activity going forward. M&A transactions may, for example, include the full or partial acquisition of other credit institutions, sales of business units or segments, and sales of portfolios.

Since the beginning of the crisis, some banking groups, including large groups, have announced their intentions to merge, to explore merger opportunities or to merge specific business units. The crisis has further aggravated profitability and

cost-efficiency pressures, and the urgency to act and address them. Digitalisation and customer use of technology has rapidly increased in the crisis, and is making existing distribution channels via, for example, wide branch networks ill-suited to serving digital clients and even partly redundant. Banks and their stakeholders in this environment appear to be increasingly considering M&A as a feasible, or in some instances even indispensable, path to address these challenges and to ensure that the banks concerned remain viable.

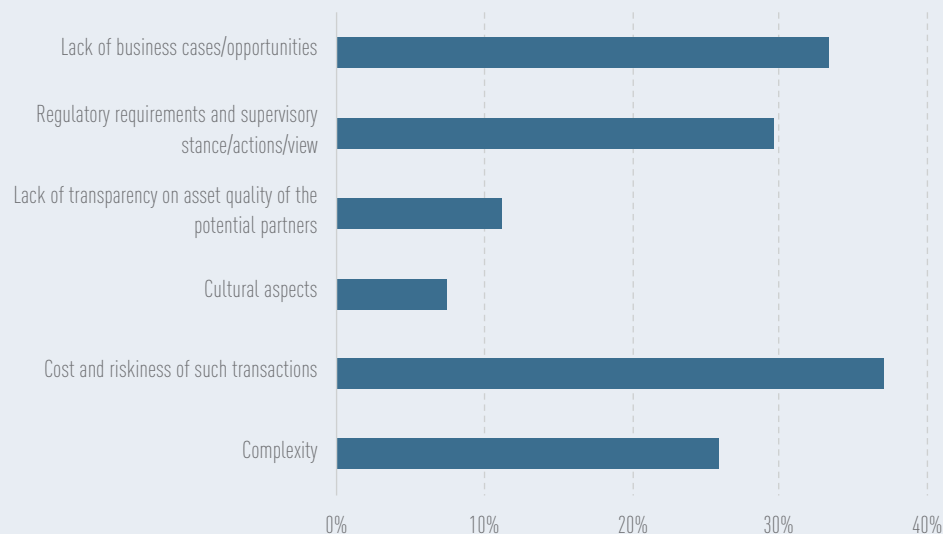
Owing to the crisis, more stakeholders may regard the potential benefits of M&A outweighing risks and challenges involved in such transactions. Responses to the RAQ confirm that M&A are an important factor for banks in addressing cost and profitability challenges, and 55% of banks indicate considering M&A transactions. At close to 80%, a large majority of these banks consider domestic M&A transactions, since they usually offer more room for eliminating cost duplicities (e.g. overlaps in the branch networks) and generating cost synergies. This confirms an expected domestic focus of possible forthcoming deals.

When looking at the obstacles to M&A and the reasons for reluctance to consider M&A, respondents to the RAQ identified the costs and riskiness of such transactions (around 37%), a lack of business cases or opportunities (around 33%), and regulatory requirements and the supervisory stance (30%) as the main reasons not to consider M&A (Figure 81).

^[93] See last year's EBA Risk Assessment Report and the ECB's Financial Stability Review as of November 2019.

Figure 81: Main reasons for banks not to consider M&A transactions

Source: EBA RAQ for banks.



With regard to regulatory requirements and the supervisory stance being a reason for banks' reluctance to consider M&A, the transparency and reliability of prudential requirements before and after mergers appears to be an important factor in predictable M&A processes, including in the pricing of transactions^[94]. Clear and stable supervisory expectations on operational integration in a post-merger setting are an important consideration when interested parties evaluate potential M&A. There are further perceptions that clarity on resolution as well as further transparency for defining and applying P2R would be conducive to facilitating M&A.

When looking at the reasons for reluctance for cross-border M&A, legal barriers as well as national regulatory restrictions on freely allocating capital and liquidity across borders were often mentioned by interested parties. It is important in the Banking Union that cross-border banking groups are subject to consistent, comparable and transparent regulatory and supervisory outcomes no matter where they operate. To ensure efficient cross-border M&A, regulation should not prevent merged banking

groups from running centralised, group-wide, capital and liquidity management strategies across Member States. A further harmonisation of supervisory practices, including on Pillar 2, would also be conducive. Restrictions on and perceived obstacles to freely allocating resources across jurisdictions as well as related supervisory stances may be another reason for a preference for domestic consolidation to date, and also going forward, as expressed in the RAQ. Less complexity and cultural aspects may be further reasons for a preference for domestic M&A.

Supervisors have recognised the potential benefits of consolidation, and the importance of a transparent and predictable approach to M&A. They aim to make supervisory expectations of a well-executed M&A more transparent, and their supervisory approaches to and actions towards such transactions more predictable. For example, the SSM provided guidance on how it will assess potential M&A transactions within the Banking Union and expressed its intention not to penalise credible integration plans with higher capital requirements and guidance^[95].

^[94] See the EBA staff paper on potential regulatory obstacles to cross-border and acquisitions in the EU banking sector.

^[95] See the ECB's draft guide on the supervisory approach to consolidation in the banking sector.

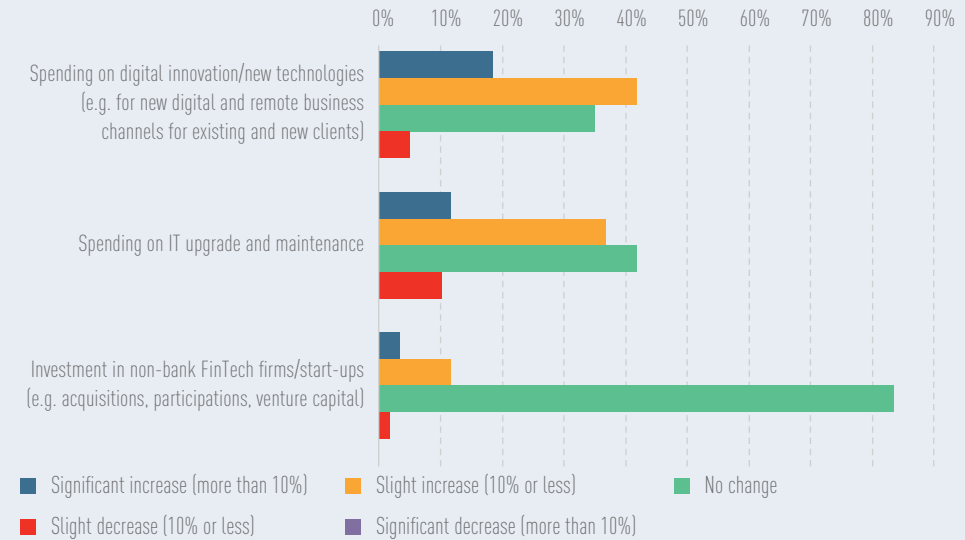
Box 12: Banks' digital strategies and FinTech trends

Overall, the pandemic has fast-forwarded the digital transformation plans of EU banks, as they are now more heavily relying on digital and remote solutions to perform their daily operations and continue delivering their services to customers. Budgetary changes to boost digital innovation/new technologies have been reported by 60% of EU banks (Figure 82), highlighting a remarkable shift towards digitalisation projects to allow outreach to both retail and business customers and offering

digital services and solutions, according to the RAQ results.

These results also show that almost one in two banks aim to increase their spending on IT upgrades and maintenance according to the RAQ, possibly to accommodate the 'new way' of working, such as upgrading their remote working capacity and capabilities as well as the overall systems' security and performance. In some cases, this may result in postponing the implementation of ICT projects that were already in the pipeline or reprioritising the deployment of ICT projects.

Figure 82: Budgetary changes to the digital strategy in the near future, autumn 2020
 Source: EBA RAQ for banks.



EU banks continue to explore potential FinTech opportunities leveraging all the possible types of engagement. Compared with 2019, a slight increase was noted in commercial partnerships among EU banks and non-bank FinTech firms/start-ups, investments in external FinTech firms (either digital/challenger banks or non-bank FinTech firms/start-ups) and interest in launching a stand-alone digital-only bank, according to the RAQ results (Figure 83).

a 26% increase in agreement in the RAQ from 2018 might indicate a strategic move to the cloud as an enabling technology due to intense competition and ongoing efforts to explore cost efficiencies and seek opportunities for innovation.

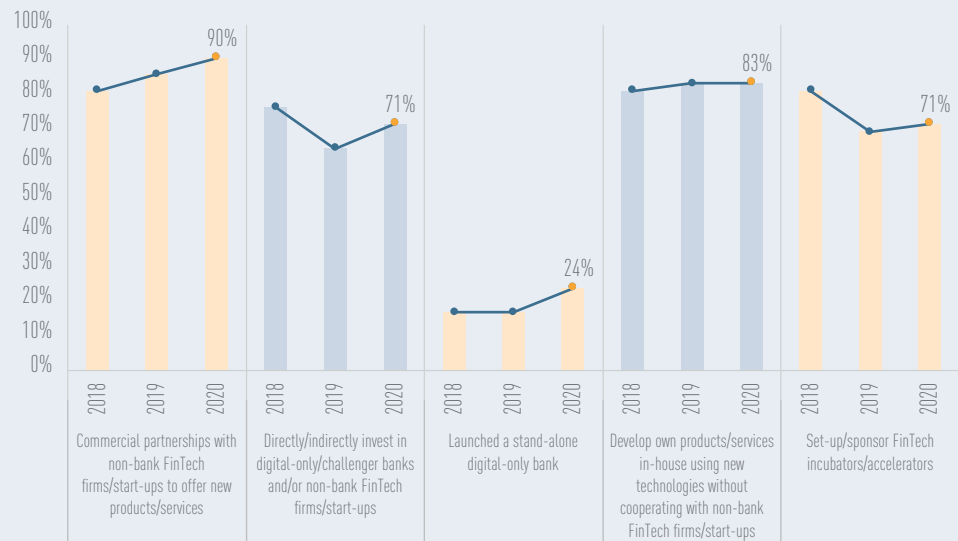
The YoY comparison on cloud adoption confirms that all EU banks are exploring the use of cloud computing. The implementation of the EBA Recommendations on outsourcing to cloud service providers in July 2018 has provided regulatory certainty in regard to the cloud adoption, and this has probably contributed to the growing use of the cloud among EU banks ⁽⁹⁴⁾. Notably,

EU banks have continued investing in artificial intelligence (AI) and big data analytics, and, notably, within 2 years, 12% of the EU banks have moved from pilot testing and development to the implementation of AI tools, the RAQ results show. Overall, 64% of EU banks have currently implemented AI in their processes and services, probably seeking to benefit from cost savings, more productive business models and new ways to compete. The upcoming proposal for a new EU regulatory framework for AI (planned in 2021) may further affect the AI adoption across EU financial services.

⁽⁹⁴⁾ See the EBA's Recommendations on outsourcing to cloud service providers.

Figure 83: Form of engagement with FinTech (YoY comparison)

Source: EBA RAQ for banks.

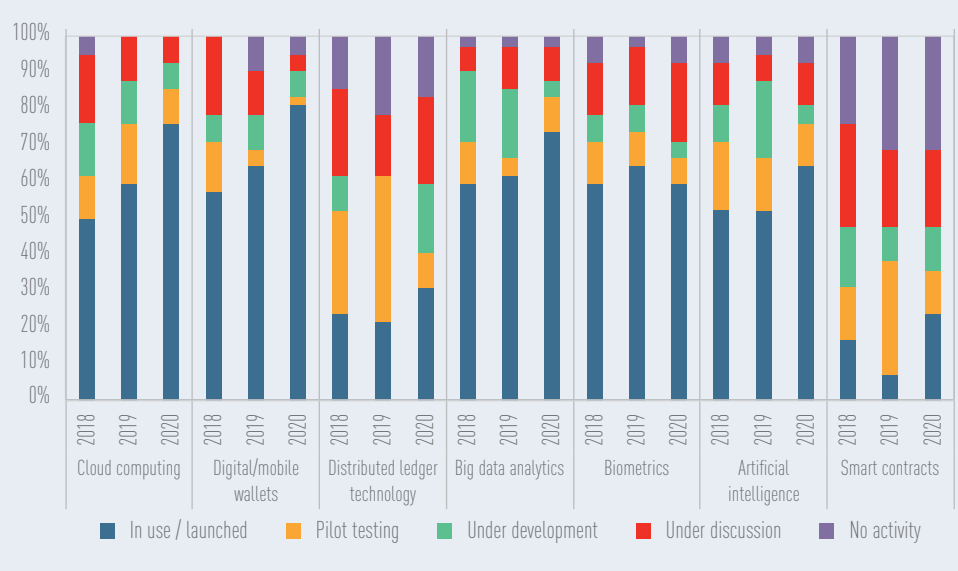


Moreover, double-digit growth was observed in the adoption of almost all the technologies (distributed ledger technology, digital/mobile wallets, smart contracts), indicating the steady realisation

of research and development investments in these technologies as well as the acceleration in deployment due to the pandemic (Figure 84).

Figure 84: Status of adoption of financial technology by EU banks (YoY comparison), autumn 2020

Source: EBA RAQ for banks.



6. Operational resilience

6.1. Operational resilience: general trends

Banks and supervisors have, in recent years, attributed a growing importance to operational risk and operational resilience. When unprecedented containment measures were introduced across Europe with the outbreak of the COVID-19 pandemic, the paramount significance of operational resilience came rapidly to the fore. It became crucial for banks to ensure unimpeded operations and the provision of essential services amid sudden material operational challenges. A swiftly increased reliance on technological solutions poses additional operational risks.

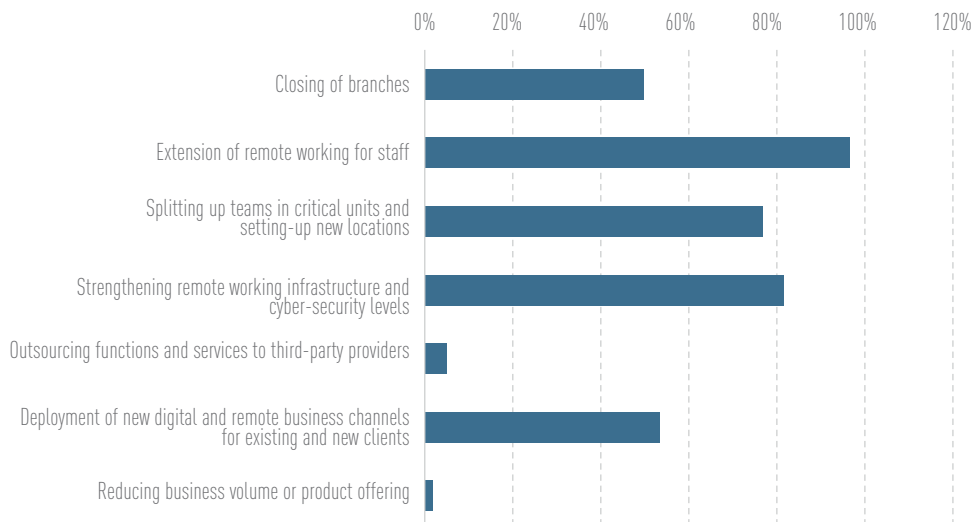
A range of reputational and operational challenges, including to business conduct, has also not abated with the outbreak of the crisis. Accordingly, banks and analysts share a view that the importance of operational risk has increased. The shares of banks' and analysts' responses to the RAQ having identified an increase in operational risk have, at 58%

and 60%, respectively, risen to the highest level of the autumn RAQs of the past 3 years. In the near term, the end of the transition period of the United Kingdom leaving the EU may pose operational challenges for some banks concerned, in spite of their preparations and relocations.

Containing the operational impact of the crisis

Banks swiftly enacted their contingency plans when the pandemic broke out in Europe in the second half of February. For almost all banks, these plans included the introduction of extended remote working for staff, as responses to the RAQ suggest (97% of responses). The most relevant contingency measures banks operationalised included strengthening remote working infrastructure and cybersecurity levels (82% of responses), splitting up teams in critical units and setting up new locations (77% of responses), and deploying new digital and remote business channels for clients (53% of responses; Figure 85).

Figure 85: Kinds of contingency plans operationalised by banks amid the COVID-19 outbreak
Source: EBA RAQ for banks.



Operationalised business continuity plans have mostly demonstrated their effectiveness in the crisis. However, operations and business continuity were under some strain in the early stages of the crisis, for example through temporarily high volumes of applications for moratoria and government-guaran-

teed loan schemes, and through challenges that some service providers of banks – often located outside Europe – experienced in the crisis. Banks have, nevertheless, broadly managed to contain the impact of the crisis on their operations. Measures that banks have introduced, such as extended remote

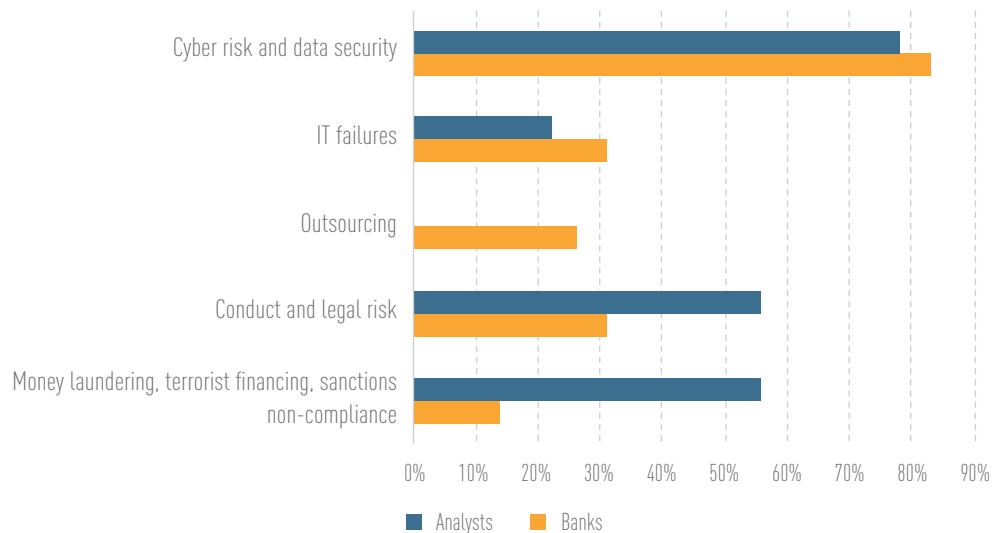
working for staff, have to date mostly not had an adverse impact on banks' operations from a prudential point of view. Critical functions have continued to operate largely unaffected by containment measures introduced in response to the crisis. No major incident or business disruption that can directly be attributed to the crisis has been reported to date.

Drivers of operational risk and losses reported

Beyond the direct and immediate impact of the crisis, banks and analysts share a view, in their responses to the RAQ, that cyber risk and data security are by far the most prominent drivers of increased operational risks

[83% and 78% agreement, respectively, Figure 86). However, banks and analysts disagree on the main operational risk drivers. For banks, ICT failures and outsourcing drive operational risks, with 31% and 26% agreement, respectively. Analysts regard the risk categories of 'conduct and legal risk' and 'money laundering, terrorist financing and sanctions for non-compliance' as the next most relevant drivers of increasing operational risk (56% agreement for each category), behind cyber risk and data security. However, only 14% of banks regard money laundering and terrorist financing as a major operational risk. This may point to different perceptions of banks and market observers of what the main operational and reputational risks challenges are, and the potential scale of related problems.

Figure 86: Main drivers of operational risk as seen by banks and analysts
 Source: EBA RAQ for banks and analysts.



Operational risk: trends in losses and reputational damage

Reporting data indicate a decline in losses related to operational risk. The amount of total losses from new events as a share of CET1 capital declined from 1.97% in 2015 to 0.76% in 2019 ⁽⁹⁷⁾. Compared with 2018, this decline was mainly driven by a reduced volume of total losses, whereas the total number of new operational loss events nearly stayed the same (Figure 87). This decrease is also reflected in slightly reduced total amounts of operational RWAs, which decreased by 3%

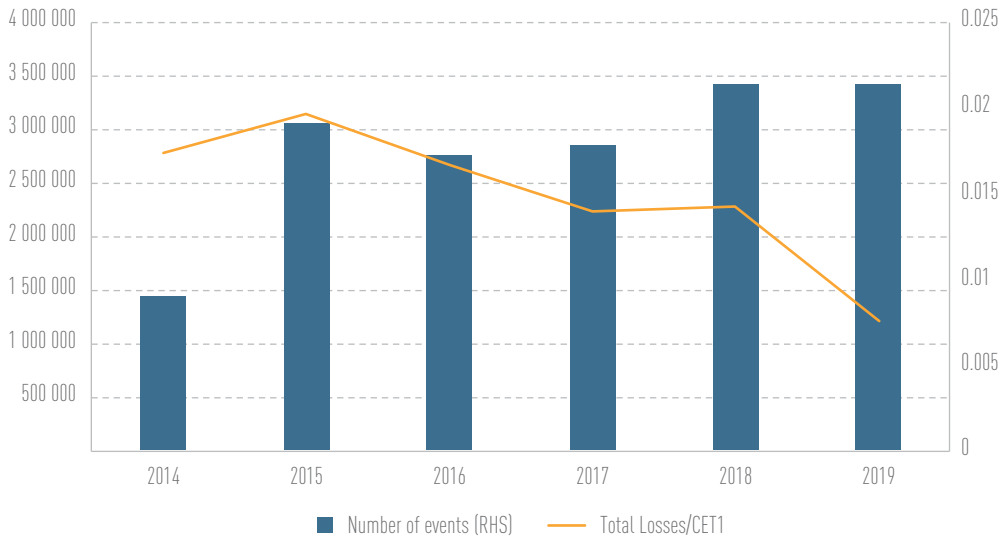
between June 2019 and June 2020 (see Chapter 4).

These developments, as reflected in reported figures, do not necessarily point to declining operational risk. One reason is that declining total operational risk amounts reflect only materialised losses from new events. Further future losses related to these incidents might in the coming years add to the ones that have already been recognised. Certain litigation costs from legal settlements that banks are entering into may not always be fully reflected in the reported data.

⁽⁹⁷⁾ The analysis of this and the following figures captures yearly data.

Figure 87: Total losses from new events in operational risk as a share of CET1 and number of new events over time

Source: Supervisory reporting data.

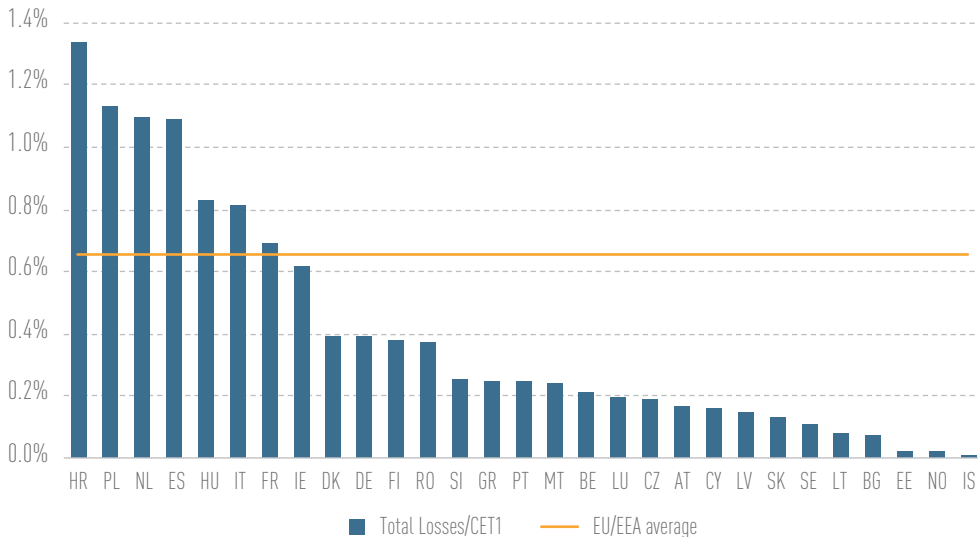


Operational risk events might not lead to a directly linked financial loss but imply reputational damage, which may result in decreasing revenues at a later stage if business volumes contract because customers leave the bank. Costs might also increase as a result of materialising operational risk, when risk premia for market-based funding increase, or higher investment in ICT or gov-

ernance becomes necessary. Country-by-country data of operational risk losses also indicate that several jurisdictions reported relatively low loss amounts (Figure 88), although they have faced high litigation costs in the past or were affected by incidences related to anti-money laundering and countering the financing of terrorism (AML/CFT) systems and control failures.

Figure 88: Total losses in operational risk (new events) as a share of CET1, by country, December 2019

Source: Supervisory reporting data.



6.2. Digitalisation and ICT-related risks

The usage of ICT and digitalisation has further increased with the pandemic, and the crisis is accelerating the technological transformation at banks. While this transforma-

tion is vital for the future competitiveness and efficiency of banks, it also increases technology-related risks. ICT risks represent a key challenge for banks and underline the importance of ICT and security risk management. In particular, cyber risk has become increasingly relevant with the outbreak of the pandemic. Digitalisation and ICT solutions

have considerably alleviated the pressure and the impact of the crisis on banks' operations. These solutions broadly displayed their resilience when most banks and their customers switched to digital activity and remote working. However, at the same time, ICT systems and confidential data are increasingly becoming a target of attempts of cybercrime (e.g. through phishing attacks).

Customers can benefit from the use of digital solutions in terms of cost, accessibility and convenience, and from the safety that contactless payments offer in the pandemic. However, the surge in the usage of digital solutions and technology may, at the same time, lead to the emergence of new business practices to the detriment of customers. The risk of digital fraud is also constantly high. The Council of Europe has already identified specific increases in certain types of fraud, which also has implications for money laundering and terrorist financing (ML/TF) risk^[98]. A rise in phishing attacks and increasing malicious activity as well as targeted digital services, such as online payments, payment cards and e-banking services, was also observed. Further efforts in cybersecurity and financial crime prevention are therefore needed. Moreover, technology for fraud detection may not keep up with ICT trends, which, together with the outdated data sets used to train the alert systems, may not adequately flag the range of fraudulent activity online.

Notwithstanding the benefits of digitalisation for consumers, it is equally important to ensure access to financial services for all customers. As there are consumers who cannot, or choose not to, use technology for their financial services, it is important to ensure that whole groups of consumers are not left behind. It is also important to ensure that consumer literacy and understanding of online transaction risks and new products keeps up with the speed of digital transformation.

Outsourcing of ICT functions and services has gained further attention in the crisis. It allows banks relatively easy access to new technologies and to achieve economies of scale. However, outsourcing can pose challenges related to third-party risk management as well as consumer data confidentiality and protection, among other challenges. A potential concentration on a limited num-

ber of outsourcing providers can additionally pose a systemic risk, especially when the services provided relate to banks' critical or important functions. In response to these risks, the EBA has updated its Guidelines on outsourcing arrangements, which are aimed at ensuring that banks can apply a single framework on outsourcing^[99].

Going forward, banks have identified, in their responses to the RAQ, increased investments in IT structures and systems as the second most relevant measure to mitigate the impact of the COVID-19 crisis on their operations. The increased use of teleworking arrangements is the only measure with higher importance. It will therefore be important for banks and their service providers to thoroughly manage their ICT and security risks, and to ensure digital operational resilience. They should ensure that appropriate technologies and adequate resources are in place to protect data integrity and business continuity and address the increasingly sophisticated cyber threats. Institutions should also pay particular attention to a growing number and new forms of financial crime in this period of large economic turmoil. The EBA has provided guidance on the mitigation and management of ICT and security risk, highlighting the importance of digital operational resilience and outlining priority areas to focus on. The guidance calls on institutions to ensure business continuity, adequate ICT capacity and security risk management^[100].

6.3. Money-laundering and terrorist-financing risks

The number of high-profile cases of money laundering involving European banks in recent years have highlighted the importance of effective AML/CFT supervision, and effective cooperation between prudential supervisors and AML/CFT supervisors. In some of these cases, the volumes of illicit and allegedly illicit transactions concerned were substantial. This leads to reputational risk and costly legal settlements for the financial institutions concerned, contributes to the resolution of some banks and ultimately undermines the integrity of the EU banking sector as a whole^[101].

The AML/CFT incidents are often not limited to AML/CFT policies and procedures but indi-

^[98] This refers, for instance, to medical equipment, economic relief measures and public procurement contracts. See the Council of Europe's report on money laundering and terrorism financing trends in MONEYVAL jurisdictions during the COVID-19 crisis.

^[99] See the EBA revised Guidelines on outsourcing arrangements, February 2019.

^[100] See the EBA Guidelines on ICT and security risk management, November 2019.

^[101] See, for instance, Duff & Phelps global AML enforcement review 2020.

cate wider governance shortcomings, weaknesses in banks' internal control and risk management frameworks, and an often high risk appetite. Effective AML/CFT policies are conducive to business conduct that prevents ML/TF in the first place. Banks should seek to embed a culture in which financial crime is not acceptable, regardless of profits. In this regard, the EBA, the European Securities and Markets Authority (ESMA) and the European Insurance and Occupational Pensions Authority (EIOPA) have developed requirements such as the Guidelines on ML/TF risk factors, which set out how financial institutions should identify and assess ML/TF risk and should put in place risk-sensitive measures to mitigate that risk effectively. The EBA is also introducing changes to its governance guidelines to set clear expectations of senior management regarding ML/TF risk ^[102].

ML/TF risks continue to be high on the agenda, and more than half of analysts regard them as a main driver of operational risks (Figure 86). ML/TF risks often have a cross-border dimension and underline the need to collectively strengthen AML/CFT supervision in Europe. The EBA has, in recent years, raised awareness of ML/TF risks, for example in its 2019 Opinion on the consideration of ML/TF risks in the prudential context ^[103]. The EBA also conducted implementation reviews of competent authorities' approaches to the AML/CFT of banks and published a report on its findings ^[104]. The report concluded that supervisors have taken significant steps to strengthen their approach to AML/CFT supervision, but significant challenges remain, including operationalising the risk-based approach to AML/CFT supervision. This means that AML/CFT supervision was not always effective. Competent authorities also need to strengthen their approach to ensuring compliance by taking more proportionate and sufficiently dissuasive measures to correct deficiencies in banks' AML/CFT systems and controls.

In 2019, the European legislature consolidated the three European Supervisory Authorities' AML/CFT mandates within the EBA. It

also gave the EBA a legal duty to contribute to preventing the use of the financial system for the purposes of ML/TF, and to lead, coordinate and monitor AML/CFT efforts across the EU financial sector. The law implementing these powers and this mandate came into effect on 1 January 2020.

In this capacity, the EBA is developing AML/CFT policies within its mandate, and works to ensure that ML/TF risks are addressed consistently by prudential and AML/CFT supervisors. It also uses its new powers to support and monitor their effective implementation, with a view to fostering a proportionate, risk-based approach to AML/CFT that is implemented consistently and effectively by competent authorities and financial institutions across the EU.

6.4. Further legal and reputational risks

Legal and reputational risks go beyond the aforementioned ICT-related risks, online fraud and failings in AML/CFT conduct. Well-known issues of misconduct concerns include redress for mis-selling banking products to retail customers, fines associated with financial crime misconduct and NPL resolution measures. Beyond reputational damage for the banks concerned, misconduct costs can be substantive. These costs further dent profits that are already under severe pressure and affect capital levels, which are vital in supporting much-needed lending to the real economy in the crisis. Business misconduct can, moreover, undermine trust in the proper functioning of the financial system. Sound internal governance arrangements are fundamental to prevent misconduct issues from arising in the first place.

In the RAQ, 30% of the responding banks indicated that they have paid aggregate litigation and redress costs and similar payments of over EUR 1 billion since the financial year 2007/2008. Another 8% have rendered over EUR 5 billion of such payments since 2007/2008. Data indicate that, between December 2018 and December 2019, net changes in provisions due to pending legal issues and litigation measured as a share of total assets slightly decreased from 2 bps to 1 bp (Figure 89). The decrease may give rise to concerns that provisioning levels may not adequately reflect lingering litigation risks for all banks, especially when considering the fact that the COVID-19 crisis and responses to it may give rise to further forthcoming litigation risks.

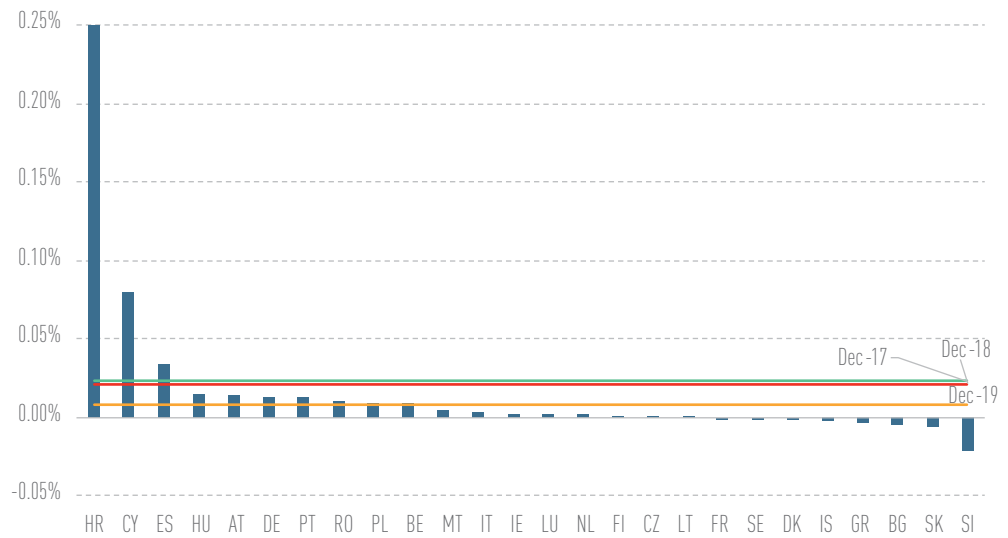
^[102] See the risk factors guidelines (2020 consultation version) and governance guidelines (2020 consultation version).

^[103] See the EBA's Opinion on communications to supervised entities regarding money laundering and terrorist financing risks in prudential supervision, July 2019, EBA's Opinion on how to take into account ML/TF risks in the Supervisory Review and Evaluation Process, November 2020, and the Joint Opinion of the European Supervisory Authorities on the risks of ML and TF affecting the European Union's financial sector, October 2019.

^[104] See the EBA's Report on competent authorities' approaches to the anti-money laundering and countering the financing of terrorism supervision of banks, February 2020.

Figure 89: Net provisions for pending legal issues and tax litigation as a share of total assets by country (2019) and for the EU (2017-2019)

Source: Supervisory reporting data.



Going forward, the uncertainty about the further evolution of the pandemic, along with measures introduced to address the crisis, may provide opportunities for the emergence of new types of misconduct, to the detriment of customers, and for further potentially

fraudulent activities. It is therefore important that banks and supervisors stay vigilant in times of economic turmoil and uncertainty and strengthen their monitoring of business conduct and operational risk.



7. Policy implications and measures

The new wave of COVID-19 infections is increasing uncertainty. Pending the approval of an effective treatment or vaccine, containment measures might still be needed to prevent a collapse of medical services. In this context, economies are unlikely to return to pre-crisis levels in the near term. A continued coordinated fiscal, monetary and regulatory response is essential to minimise the impact of COVID-19 on the real economy. Authorities should remain alert so that they can adjust policies in response to the uncertain economic environment. In addition, while supporting the economy, banks should increasingly pay attention to the ESG risks of their counterparties that are relevant factors in the transition to a more sustainable economy.

Banks need to keep supporting the real economy. After the substantial increase in lending in the first half of 2020, going forward, the economic contraction is likely to lead to a decline in credit demand for new investment projects or large spending decisions. However, banks should avoid restricting lending to viable borrowers to prevent the failure of NFCs due to cash flow shortfalls that might trigger further defaults and banks' losses.

Banks should brace themselves for deterioration in asset quality. Asset quality metrics are expected to deteriorate significantly over the next quarters. Banks should adjust their provisioning models to address the impact of this unprecedented shock and to ensure a timely recognition of adequate levels of provisions. Banks' provisioning policies should continue to be a point of attention for regulators and supervisors to ensure a high-quality and consistent implementation of the relevant accounting requirements. Banks should also engage, as soon as possible, with struggling borrowers in order to find solutions through forbearance or similar measures. In addressing the non-performing exposures, banks should apply the most suitable strategies, which may include internal workouts through smooth insolvency proceedings and opting to transfer their non-performing exposures to agents with more expertise in debt collection to speed up balance-sheet cleaning. Irrespective of the chosen strat-

egy for dealing with NPLs, banks should be mindful of the relevant consumer protection obligations.

Banks should take advantage of favourable liquidity windows to advance in their MREL build-up. Although central bank support has dissipated short-term liquidity concerns, and debt spreads have returned to pre-COVID levels, a lot of uncertainty remains. In the medium term, banks should also plan for a smooth substitution of central bank funding for market-based instruments as soon as the situation allows.

Prudent capital distribution policies are still required. In spite of the regulatory relief provided by supervisors and the increase in capital ratios in the second quarter of 2020, capital remains under pressure. The contraction in operating revenues may reduce capital accretion, whereas deterioration in asset quality may erode the capital base and increase PDs and LGDs and hence RWAs.

Regulators and supervisors have made it clear that capital buffers are designed to absorb losses and ensure continued lending during a downturn. Maintaining lending to the real economy might imply that some banks temporarily operate below their OCR. In the medium term, the design of the buffers and their usability in crisis times deserve attention. Regulators and supervisors should also discuss how to provide clearer guidance on the expected period and approach to rebuilding the buffers. Next year's stress test might provide additional indications on the evolution of capital levels in the medium term.

COVID-19 has aggravated the need for cost reduction measures. The bleak macroeconomic conditions and the protracted low interest rate environment are increasing the pressure on profitability. Lending margins are likely to remain low and the expected deterioration in credit quality might further increase loan losses. COVID-19 might be the catalyst for many clients to become digital customers, hence increasing branch overcapacity. Those banks that have already exhausted cost-saving opportunities on a stand-alone basis and have not yet attained

sustainable profitability levels might opt for M&A deals to exploit potential cost synergies.

Banks will need to make further progress in adapting their systems to a challenging technological environment and increasing AML/CFT risks. During the pandemic, cyber-crime and phishing attacks have accelerated in parallel with digitalisation and the usage of ICT. Although banks with strong cybersecurity procedures do not necessarily suffer fewer incidents, they are more likely to respond to them in an adequate manner, minimising the impact on profitability and on their reputa-

tion with clients. Breaches related to AML/CFT lead to reputational problems and costly legal settlements for the institutions concerned. Competent authorities should shift away from a focus on testing compliance with a prescriptive set of AML/CFT requirements and towards assessing whether banks' AML/CFT systems and controls are effective. Banks' preparedness for the replacements of benchmark rates remains a key risk, which should be addressed in the light of the upcoming discontinuation of, for instance, certain LIBORs.



Annex I: Samples of banks

List of banks that made up the sample population for the risk indicators, the transparency exercise and the RAQ ^[105]:

Name	Country	Risk indicators	2020 Transparency Exercise	Climate Risk Exercise
BAWAG Group AG	Austria	X	X	
Erste Group Bank AG	Austria	X	X	
Raiffeisen Bank International AG	Austria	X	X	X
Raiffeisenbankengruppe OÖ Verbund eGen	Austria	X	X	
Sberbank Europe AG	Austria	X	X	
UniCredit Bank Austria AG	Austria	X		
Volksbanken Verbund	Austria	X	X	
AXA Bank Belgium SA	Belgium	X	X	
BNP Paribas Fortis SA	Belgium	X		
Belfius Banque SA	Belgium	X	X	
Dexia SA	Belgium	X	X	
ING België / Belgique	Belgium	X		
Investeringsmaatschappij Argenta NV	Belgium	X	X	
KBC Group NV	Belgium	X	X	
Bank of New York Mellon	Belgium	X	X	
DSK Bank Bulgaria	Bulgaria	X		
First Investment Bank	Bulgaria	X	X	
UniCredit Bulbank Bulgaria	Bulgaria	X		
United Bulgarian Bank- UBB	Bulgaria	X		
Bank of Cyprus Holdings Public Limited Company	Cyprus	X	X	
Hellenic Bank Public Company Ltd	Cyprus	X	X	
RCB Bank Ltd	Cyprus	X	X	
Česká spořitelna, a.s.	Czech Republic	X		
Československá obchodní banka, a.s.	Czech Republic	X		
Komerční banka, a.s.	Czech Republic	X		
Aareal Bank AG	Germany	X	X	
Bayerische Landesbank	Germany	X	X	
Commerzbank AG	Germany	X	X	
Deutsche Apotheker- und Ärztebank eG	Germany	X	X	
Deutsche Zentral-Genossenschaftsbank AG	Germany	X	X	

^[105] 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. those for financial supervisory reporting (FINREP)). The list of banks that are the basis for the risk indicators refers to the sample of banks used to calculate the Q2 2020 indicators. The lists of reporting institutions are available on the EBA website.

Name	Country	Risk indicators	2020 Transparency Exercise	Climate Risk Exercise
DekaBank Deutsche Girozentrale	Germany	X	X	X
Deutsche Bank AG	Germany	X	X	X
Deutsche Pfandbriefbank AG	Germany	X	X	
Erwerbsgesellschaft der S-Finanzgruppe mbH & Co. KG	Germany	X	X	
HASPA Finanzholding AG	Germany	X	X	
Hamburg Commercial Bank AG	Germany	X	X	
J.P. Morgan AG, Frankfurt am Main	Germany	X	X	
Landesbank Baden-Württemberg	Germany	X	X	X
Landesbank Hessen-Thüringen Girozentrale	Germany	X	X	
Landeskreditbank Baden-Württemberg - Förderbank	Germany			X
Münchener Hypothekenbank eG	Germany	X	X	
Norddeutsche Landesbank Girozentrale	Germany	X	X	X
State Street Europe Holdings	Germany	X	X	X***
UBS Europe SE, Ffm	Germany	X	X	
Volkswagen Bank Gesellschaft mit beschränkter Haftung	Germany	X	X	
Danske Bank A/S	Denmark	X	X	
Jyske Bank A/S	Denmark	X	X	
Nykredit Realkredit A/S	Denmark	X	X	X***
Sydbank A/S	Denmark	X	X	
AS LHV Group	Estonia	X	X	
SEB Pank AS	Estonia	X		
Luminor Bank AS	Estonia	X	X**	
Swedbank AS	Estonia	X		
Abanca Corporación Bancaria	Spain	X	X	X
BFA Tenedora de Acciones, S.A.	Spain	X	X	X***
Banco Bilbao Vizcaya Argentaria, S.A.	Spain	X	X	X
Banco Santander, S.A.	Spain	X	X	X
Banco de Crédito Social Cooperativo, S.A.	Spain	X	X	
Banco de Sabadell, S.A.	Spain	X	X	
Bankinter, S.A.	Spain	X	X	
CaixaBank S.A.	Spain	X	X	X
Ibercaja Banco, S.A.	Spain	X	X	
Kutxabank, S.A.	Spain	X	X	
Liberbank, S.A.	Spain	X	X	
Unicaja Banco, S.A.	Spain	X	X	X
Kuntarahoitus Oyj	Finland	X	X	
Nordea Bank Abp	Finland	X	X	X
OP Osuuskunta	Finland	X	X	X***
Säästöpankkiliitto osk	Finland	X	X	
BNP Paribas SA	France	X	X	X
Banque Centrale de Compensation (LCH Clearent)	France	X	X	
Bpifrance (Banque Publique d'Investissement)	France	X	X	

Name	Country	Risk indicators	2020 Transparency Exercise	Climate Risk Exercise
CRH (Caisse de Refinancement de l'Habitat)	France	X	X	
Crédit Mutuel Group	France	X	X	X
Groupe BPCE	France	X	X	X
Groupe Crédit Agricole	France	X	X	
HSBC France	France	X	X	
La Banque Postale	France	X	X	
RCI banque (Renault Crédit Industriel)	France	X	X	
SFIL (Société de Financement Local)	France	X	X	
Société Générale SA	France	X	X	X
Barclays Plc	United Kingdom		X	
HSBC Holdings Plc	United Kingdom		X	
Lloyds Banking Group Plc	United Kingdom		X	
NatWest Group plc	United Kingdom		X	
Nationwide Building Society	United Kingdom		X	
Standard Chartered Plc	United Kingdom		X	
Alpha Bank SA	Greece	X	X	
Eurobank Ergasias SA	Greece	X	X	
National Bank of Greece SA	Greece	X	X	
Piraeus Bank SA	Greece	X	X	
Erste & Steiermärkische Bank d.d.	Croatia	X		
Privredna Banka Zagreb d.d.	Croatia	X		
Zagrebacka Banka d.d.	Croatia	X		
Kereskedelmi és Hitelbank Zrt.	Hungary	X		
OTP Bank Nyrt.	Hungary	X	X	
UniCredit Bank Hungary Zrt.	Hungary	X		
AIB Group plc	Ireland	X	X	
Bank of America Merrill Lynch International Designated Activity Company	Ireland	X	X	
Bank of Ireland Group plc	Ireland	X	X	X
Barclays Bank Ireland Plc	Ireland	X	X	
Citibank Holdings Ireland Limited	Ireland	X	X	
Ulster Bank Ireland Limited	Ireland	X	X	
Arion banki hf	Iceland	X	X	
Landsbankinn hf.	Iceland	X	X	
Íslandsbanki hf.	Iceland	X	X	
Banca Monte dei Paschi di Siena SpA	Italy	X	X	
Banca popolare dell'Emilia Romagna SC	Italy	X	X	
Banca Popolare di Sondrio SCpA	Italy	X	X	
Banco BPM SpA	Italy	X	X	

Name	Country	Risk indicators	2020 Transparency Exercise	Climate Risk Exercise
Cassa Centrale Banca - Credito Cooperativo Italiano S.p.A	Italy	X	X	
Credito Emiliano Holding SpA	Italy	X	X	
Iccrea Banca Spa Istituto Centrale del Credito Cooperativo	Italy	X	X	
Intesa Sanpaolo SpA	Italy	X	X	X
Mediobanca - Banca di Credito Finanziario SpA	Italy	X	X	
UniCredit SpA	Italy	X	X	X
Unione di Banche Italiane SCpA	Italy	X	X	
Swedbank AB	Lithuania	X		
AB SEB bankas	Lithuania	X		
Akcinė bendrovė Šiaulių bankas	Lithuania	X	X	
BGL BNP Paribas	Luxembourg	X		
Banque Internationale à Luxembourg	Luxembourg	X	X	
Banque et Caisse d'Épargne de l'État, Luxembourg	Luxembourg	X	X	
J.P. Morgan Bank Luxembourg S.A.	Luxembourg	X	X	
Precision Capital S.A.	Luxembourg	X	X	
RBC Investor Services Bank S.A.	Luxembourg	X	X	
Société Générale Bank & Trust	Luxembourg	X		
AS SEB banka	Latvia	X		
AS Citadele banka	Latvia	X	X	
Swedbank AS	Latvia	X		
Bank of Valletta Plc	Malta	X	X	
Commbank Europe Ltd	Malta	X	X	
HSBC Bank Malta Plc	Malta	X	X	
MDB Group Limited	Malta	X	X	
ABN AMRO Bank N.V.	Netherlands	X	X	X
BNG Bank N.V.	Netherlands	X	X*	
Coöperatieve Rabobank U.A.	Netherlands	X	X*	X
ING Groep N.V.	Netherlands	X	X	X
Nederlandse Waterschapsbank N.V.	Netherlands	X	X*	X
de Volksbank N.V.	Netherlands	X	X*	
Triodos Bank N.V.	Netherlands			X
DNB BANK ASA	Norway	X	X	
SPAREBANK 1 SR-BANK ASA	Norway	X	X	
SPAREBANK 1 SMN	Norway	X	X	
Bank Polska Kasa Opieki SA	Poland	X	X	X
Powszechna Kasa Oszczędności Bank Polski SA	Poland	X	X	
Santander Bank Polska SA	Poland	X		
Banco BPI SA	Portugal	X		
Banco Comercial Português SA	Portugal	X	X	
Caixa Central de Crédito Agrícola Mútuo, CRL	Portugal	X	X	
Caixa Económica Montepio Geral	Portugal	X	X	

Name	Country	Risk indicators	2020 Transparency Exercise	Climate Risk Exercise
Caixa Geral de Depósitos SA	Portugal	X	X	
LSF Nani Investments S.à.r.l.	Portugal	X	X	
Santander Totta – SGPS SA	Portugal	X		
Banca Comerciala Romana SA	Romania	X		
BRD-Groupe Société Générale SA	Romania	X		
Banca Transilvania	Romania	X	X	
AB Svensk Exportkredit	Sweden	X	X**	
Kommuninvest - group	Sweden	X	X	
Länsförsäkringar Bank AB - group	Sweden	X	X	
SBAB Bank AB - group	Sweden	X	X	
Skandinaviska Enskilda Banken - group	Sweden	X	X	
Svenska Handelsbanken - group	Sweden	X	X	
Swedbank - group	Sweden	X	X	
Biser Topco S.à.r.l.	Slovenia	X	X	
Nova Ljubljanska Banka d.d. Ljubljana	Slovenia	X	X	
SKB banka	Slovenia	X		
Slovenská sporiteľňa, a.s.	Slovakia	X		
Tatra banka, a.s.	Slovakia	X		
Všeobecná úverová banka, a.s.	Slovakia	X		

The banks marked (*) are included in the transparency exercise in the 'other banks' bucket in Q1 2020. Individual figures are disclosed for Q2 2020.

The banks marked (**) are included in the transparency exercise in the 'other banks' bucket in Q1 and Q2 2020.

The banks marked (***) are included in the climate risk exercise under the name Bankia S.A., Nykredit, OP Financial Group and State Street Bank International GmbH, respectively.



Annex II: Descriptive statistics from the EBA key risk indicators

The data show the trend in risk indicators and are 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 considered further ⁽¹⁰⁶⁾.

KRI	Descriptive Statistics	Dec-14	Mar-15	Jun-15	Sep-15	Dec-15	Mar-16	Jun-16	Sep-16	Dec-16	Mar-17	Jun-17	Sep-17	Dec-17	Mar-18	Jun-18	Sep-18	Dec-18	Mar-19	Sep-19	Jun-19	Dec-19	Mar-20	Jun-20	
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%	16.2%	16.1%	16.8%	15.8%	16.3%
	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%	14.5%	14.8%	14.8%	14.3%	14.8%
	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%	16.6%	16.5%	16.4%	16.4%	16.3%	16.3%
2 - Total capital ratio	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%	19.8%	19.5%	20.4%	19.9%	20.1%	20.1%
	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%	18.9%	18.9%	19.5%	18.3%	18.8%
	First quartile	13.8%	13.7%	14.2%	14.4%	14.8%	14.9%	15.0%	15.1%	15.2%	15.3%	16.0%	16.3%	16.3%	16.0%	16.3%	16.2%	16.2%	16.2%	16.2%	16.4%	16.5%	17.1%	16.6%	17.1%
3 - CET1 ratio	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%	19.0%	19.2%	19.0%	19.1%	19.0%	18.8%	19.4%	18.4%	19.2%
	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%	21.9%	21.7%	21.6%	23.0%	21.7%	22.2%
	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%	14.8%	14.6%	14.6%	14.6%	14.6%	15.2%	14.6%	15.0%
4 - CET1 ratio (fully loaded)	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%	13.3%	13.5%	13.3%	13.6%	13.5%	13.9%	13.7%	14.2%	13.4%	13.8%
	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%	15.6%	15.5%	15.5%	15.9%	15.8%	16.2%
	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%	19.5%	19.5%	19.4%	18.8%	19.6%	19.2%	19.5%
5 - 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%	14.4%	14.4%	15.0%	14.4%	14.7%
	First quartile	10.5%	10.6%	11.1%	11.7%	11.7%	11.9%	12.0%	12.0%	12.2%	12.2%	12.5%	12.7%	13.3%	12.9%	12.8%	12.8%	12.8%	12.9%	13.2%	13.1%	13.5%	13.0%	13.2%	13.2%
	Median	12.1%	12.3%	12.4%	12.7%	13.6%	13.9%	14.2%	14.6%	14.5%	14.5%	14.7%	14.8%	15.5%	15.2%	15.5%	15.5%	15.5%	15.3%	15.2%	15.2%	15.2%	15.8%	15.6%	16.1%
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%	19.2%	19.2%	19.0%	18.7%	19.5%	18.7%	19.1%	

⁽¹⁰⁶⁾ This table includes data from UK banks until December 2019, following the same approach like in the EBA's Risk Dashboard.

KRI	Descriptive Statistics	Dec-14	Mar-15	Jun-15	Sep-15	Dec-15	Mar-16	Jun-16	Sep-16	Dec-16	Mar-17	Jun-17	Sep-17	Dec-17	Mar-18	Jun-18	Sep-18	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19	Mar-20	Jun-20		
5 - Leverage Ratio	Weighted average					5.3%	5.5%	5.3%	5.3%	5.4%	5.3%	5.4%	5.4%	5.6%	5.3%	5.3%	5.3%	5.5%	5.4%	5.4%	5.4%	5.6%	5.3%	5.3%		
	First quartile					4.4%	4.6%	4.4%	4.4%	4.5%	4.8%	4.6%	4.8%	4.8%	4.7%	4.7%	4.7%	4.9%	4.7%	4.7%	4.7%	4.6%	4.9%	4.7%	4.8%	
	Median					5.8%	5.7%	5.5%	5.7%	5.6%	5.9%	5.8%	5.9%	5.9%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.1%	6.2%	6.3%	6.0%	
6 - Leverage Ratio (fully phased-in definition of Tier 1)	Third quartile					7.2%	7.5%	7.3%	7.6%	7.7%	8.1%	8.1%	8.1%	8.1%	8.5%	8.4%	8.5%	8.5%	8.6%	8.4%	8.4%	8.5%	8.6%	8.5%	8.2%	
	Weighted average					5.0%	5.1%	5.0%	5.1%	5.2%	5.4%	5.1%	5.1%	5.1%	5.3%	5.1%	5.1%	5.3%	5.2%	5.2%	5.2%	5.5%	5.2%	5.2%	5.2%	
	First quartile					4.1%	4.3%	4.3%	4.3%	4.4%	4.6%	4.5%	4.6%	4.5%	4.7%	4.6%	4.5%	4.7%	4.7%	4.6%	4.6%	4.5%	4.8%	4.7%	4.6%	
7 - Ratio of non-performing loans and advances (NPL ratio)	Median					5.4%	5.4%	5.2%	5.4%	5.5%	5.7%	5.5%	5.5%	5.7%	5.5%	5.5%	5.6%	5.5%	5.7%	5.7%	5.8%	5.9%	6.1%	5.9%	5.9%	
	Third quartile					7.2%	7.3%	7.1%	7.4%	7.5%	7.9%	7.7%	7.9%	7.9%	7.6%	7.6%	7.3%	7.9%	7.9%	8.0%	8.1%	8.1%	8.4%	8.1%	7.8%	
	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%	2.9%	2.7%	3.0%	
8 - Coverage ratio of non-performing loans and advances	First quartile					2.1%	2.2%	2.2%	1.9%	1.9%	1.8%	1.6%	1.5%	1.4%	1.3%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.3%	
	Median					5.5%	5.8%	5.5%	5.0%	4.9%	4.6%	4.1%	3.5%	3.4%	3.0%	2.9%	2.7%	2.6%	2.7%	2.7%	2.6%	2.6%	2.5%	2.5%	2.4%	
	Third quartile					14.9%	15.4%	14.4%	14.8%	14.2%	13.6%	13.1%	10.0%	9.0%	8.7%	7.8%	7.4%	6.9%	6.5%	5.6%	5.7%	5.0%	4.6%	4.2%	4.3%	
9 - Forbearance ratio for loans and advances	Weighted average					43.4%	43.0%	43.6%	43.7%	43.7%	43.9%	44.3%	44.8%	45.0%	44.7%	46.0%	46.0%	45.7%	45.0%	45.1%	44.9%	44.6%	44.7%	46.0%	45.5%	
	First quartile					31.8%	31.2%	32.1%	31.3%	31.2%	31.8%	31.7%	31.0%	30.6%	28.6%	28.2%	26.9%	26.0%	26.0%	26.5%	28.1%	29.2%	29.1%	29.2%	30.4%	30.3%
	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%	38.5%	39.6%	39.8%	39.5%	39.5%	41.7%	41.2%
9 - Forbearance ratio for loans and advances	Third quartile					48.2%	47.2%	47.5%	48.3%	47.5%	47.6%	47.9%	48.6%	48.2%	48.9%	48.7%	49.0%	48.7%	49.5%	48.3%	51.4%	51.0%	50.7%	50.7%	51.0%	51.0%
	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%	1.8%	
	First quartile					1.2%	1.2%	1.2%	1.2%	1.1%	1.1%	1.1%	1.1%	1.0%	0.9%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.9%	
9 - Forbearance ratio for loans and advances	Median					3.3%	3.3%	3.4%	3.2%	2.9%	2.8%	2.7%	2.5%	2.4%	2.3%	2.1%	2.1%	1.9%	1.8%	1.8%	1.7%	1.8%	1.6%	1.9%	2.1%	
	Third quartile					8.9%	9.3%	8.7%	8.8%	8.9%	9.3%	8.9%	9.1%	8.5%	7.3%	7.0%	5.9%	5.2%	4.8%	4.5%	4.2%	4.4%	3.9%	3.6%	3.8%	
	Weighted average					8.9%	9.3%	8.7%	8.8%	8.9%	9.3%	8.9%	9.1%	8.5%	7.3%	7.0%	5.9%	5.2%	4.8%	4.5%	4.2%	4.4%	3.9%	3.6%	3.8%	

Descriptive Statistics KRI Dec-14 Mar-15 Jun-15 Sep-15 Dec-15 Mar-16 Jun-16 Sep-16 Dec-16 Mar-17 Jun-17 Sep-17 Dec-17 Mar-18 Jun-18 Sep-18 Dec-18 Mar-19 Jun-19 Sep-19 Dec-19 Mar-20 Jun-20

	Dec-14	Mar-15	Jun-15	Sep-15	Dec-15	Mar-16	Jun-16	Sep-16	Dec-16	Mar-17	Jun-17	Sep-17	Dec-17	Mar-18	Jun-18	Sep-18	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19	Mar-20	Jun-20	
Credit Risk and Asset Quality																								
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%	2.5%	2.4%	2.6%	2.5%	
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%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%	1.2%	
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%	2.3%	2.2%	2.2%	2.1%	
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%	3.6%	3.4%	3.5%	3.4%	
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%	7.2%	6.5%	6.8%	7.0%	6.6%	5.7%	1.3%	0.5%	
11 - Return on equity																								
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%	3.6%	3.2%	4.4%	4.3%	3.5%	-3.2%	0.0%	
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%	6.4%	5.9%	1.6%	2.7%	
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%	9.9%	9.5%	9.2%	9.9%	10.0%	9.0%	5.0%	5.4%	
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%	0.4%	0.4%	0.1%	0.0%	
12 - Return on assets																								
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%	0.2%	0.2%	-0.2%	0.0%	
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%	0.5%	0.4%	0.1%	0.2%	
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%	0.8%	0.8%	0.9%	0.9%	0.8%	0.8%	0.8%	0.8%	0.6%	0.4%	0.4%	
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%	63.7%	63.2%	64.5%	66.3%	64.1%	63.3%	64.0%	71.7%	66.6%	
13 - Cost to income ratio																								
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%	51.2%	50.3%	50.4%	52.6%	51.8%	51.2%	53.1%	56.1%	53.9%	
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%	61.8%	60.9%	62.5%	64.6%	63.4%	62.1%	62.7%	67.4%	65.2%	
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%	73.0%	69.8%	70.6%	74.5%	72.5%	71.9%	72.2%	83.9%	78.6%	
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%	58.4%	58.4%	62.9%	60.3%	
14 - Net interest income to total net operating income																								
First quartile	49.6%	43.2%	45.9%	48.3%	48.9%	51.9%	50.4%	49.7%	48.7%	48.7%	50.1%	52.7%	48.5%	48.4%	51.1%	51.2%	53.5%	51.0%	52.8%	53.7%	53.0%	52.3%	54.0%	
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%	65.9%	65.8%	64.7%	64.3%	63.9%	68.3%	65.9%	
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%	75.7%	77.2%	76.7%	75.7%	76.6%	77.3%	74.7%	74.7%	75.2%	75.3%	79.0%	

KRI	Descriptive Statistics	Dec-14	Mar-15	Jun-15	Sep-15	Dec-15	Mar-16	Jun-16	Sep-16	Dec-16	Mar-17	Jun-17	Sep-17	Dec-17	Mar-18	Jun-18	Sep-18	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19	Mar-20	Jun-20		
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%	28.4%	28.5%	32.9%	30.4%	30.4%	
	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%	15.2%	15.2%	16.0%	16.4%	15.7%	17.3%	16.3%	16.3%	16.3%
	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%	25.4%	25.5%	24.6%	25.5%	25.5%	25.3%	28.3%	27.2%	27.2%
	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%	34.0%	32.9%	32.8%	32.9%	32.9%	33.6%	40.1%	37.2%	37.2%
	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%	12.6%	10.9%	10.0%	-19.7%	-1.5%	-1.5%	-1.5%
	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%	0.0%	0.0%	-0.1%	-5.7%	-3.0%	-3.0%
	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%	0.5%	2.0%	2.0%	1.2%	1.3%	1.3%	-0.4%	0.2%	0.2%
	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%	2.6%	10.1%	7.0%	6.7%	4.9%	2.7%	2.8%	2.8%	2.8%
	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%	1.4%	1.5%	1.4%	1.4%	1.4%	1.5%	1.4%	1.4%	1.3%
	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%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Median	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%	1.4%	1.4%	1.5%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.3%	
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%	1.9%	2.0%	2.0%	2.1%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	1.9%	
18 - Cost of Risk	Weighted average														0.6%	0.5%	0.4%	0.5%	0.5%	0.5%	0.5%	0.5%	0.8%	0.9%	0.9%	
	First quartile														0.0%	0.0%	0.0%	0.1%	0.0%	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%	
	Median														0.1%	0.1%	0.2%	0.3%	0.1%	0.2%	0.2%	0.3%	0.2%	0.4%	0.4%	
	Third quartile														0.2%	0.3%	0.4%	0.6%	0.2%	0.3%	0.4%	0.7%	0.3%	0.6%	0.6%	

Profitability

KRI	Descriptive Statistics	Dec-14	Mar-15	Jun-15	Sep-15	Dec-15	Mar-16	Jun-16	Sep-16	Dec-16	Mar-17	Jun-17	Sep-17	Dec-17	Mar-18	Jun-18	Sep-18	Dec-18	Mar-19	Jun-19	Sep-19	Dec-19	Mar-20	Jun-20		
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%	116.9%	116.4%	116.4%	116.0%	114.9%	121.4%	116.0%	
	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%	89.9%	89.3%	90.0%	92.2%	90.9%	88.4%	90.1%	89.3%	88.4%	88.4%	85.2%	88.4%	
	Median	121.1%	122.2%	120.6%	120.0%	118.3%	119.3%	117.9%	116.9%	116.1%	117.7%	114.9%	112.9%	113.8%	113.3%	112.2%	112.0%	111.7%	111.2%	108.1%	108.7%	106.8%	105.7%	104.6%	102.2%	106.8%
	Third quartile	191.8%	188.0%	183.0%	187.0%	179.4%	175.6%	176.0%	179.8%	192.5%	181.7%	163.9%	171.4%	173.7%	178.4%	177.9%	181.6%	186.1%	164.1%	168.4%	169.2%	171.7%	176.7%	170.3%	177.9%	
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%	27.8%	27.9%	28.4%	28.0%	28.7%	28.0%	27.6%	27.5%	27.5%	27.3%	26.7%	27.5%	27.5%	
	First quartile	13.1%	14.3%	13.7%	13.7%	15.0%	14.3%	12.8%	12.3%	12.6%	13.5%	13.5%	12.9%	13.4%	14.0%	13.7%	13.0%	12.4%	11.5%	11.4%	12.0%	11.5%	11.3%	13.7%	11.3%	
	Median	24.3%	24.8%	25.3%	24.9%	25.4%	24.6%	24.9%	24.2%	24.4%	25.3%	24.2%	24.8%	23.7%	23.5%	23.9%	24.0%	23.6%	22.2%	21.8%	21.8%	21.2%	22.1%	25.2%	21.2%	
	Third quartile	38.8%	38.4%	36.2%	36.9%	35.7%	36.2%	36.1%	36.9%	37.4%	37.9%	36.7%	35.5%	35.1%	34.7%	33.8%	33.8%	34.0%	32.5%	32.3%	32.3%	32.1%	32.4%	30.9%	31.1%	
21 - Liquidity coverage ratio (%)	Weighted average																									
	First quartile																									
	Median																									
	Third quartile																									

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