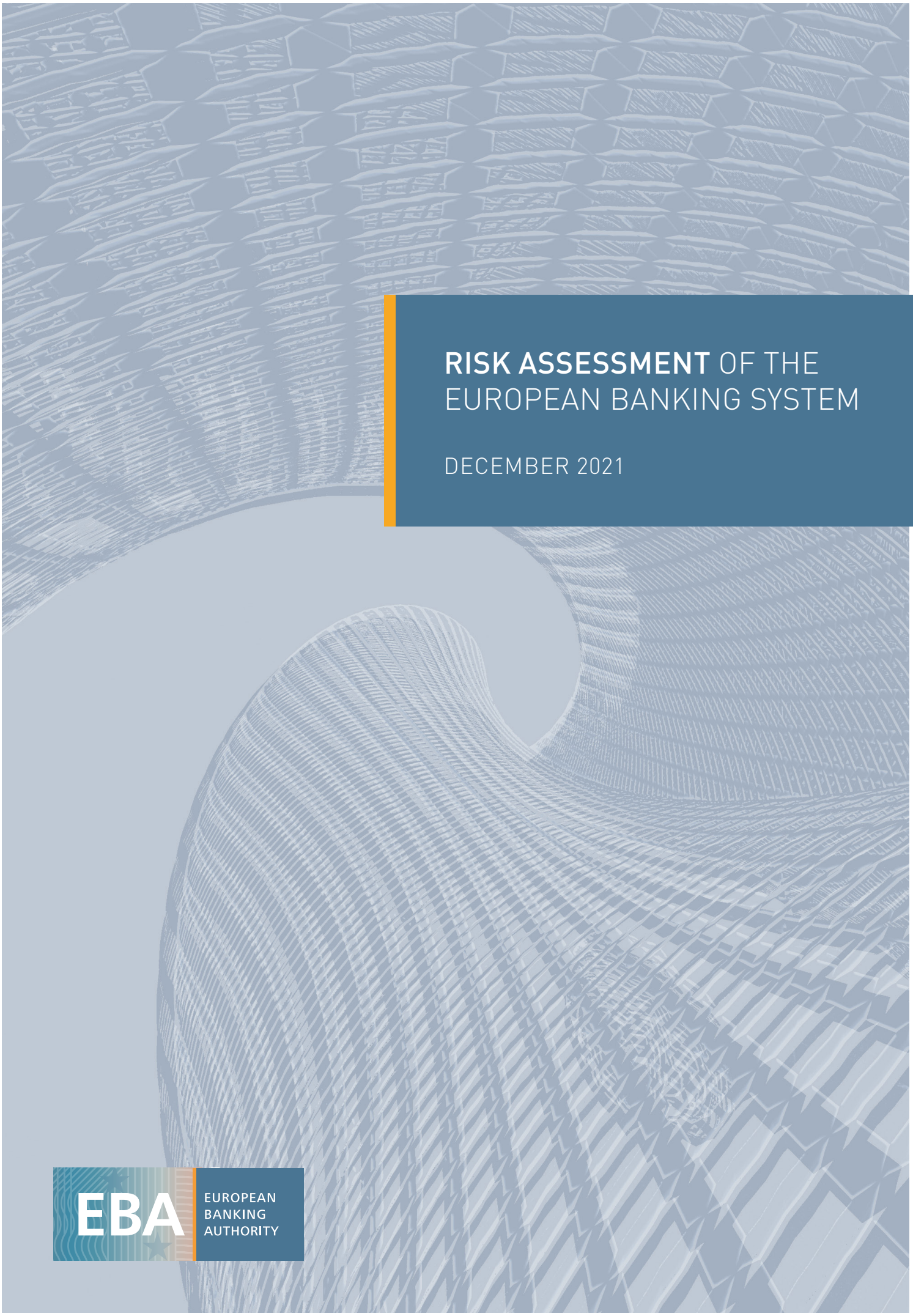


RISK ASSESSMENT OF THE EUROPEAN BANKING SYSTEM

DECEMBER 2021

EBA EUROPEAN BANKING AUTHORITY

PDF	ISBN 978-92-9245-750-1	ISSN 1977-9097	doi:10.2853/382025	DZ-AC-21-001-EN-N
Print	ISBN 978-92-9245-751-8	ISSN 1977-9089	doi:10.2853/086224	DZ-AC-21-001-EN-C

Luxembourg: Publications Office of the European Union, 2021

RISK ASSESSMENT OF THE EUROPEAN BANKING SYSTEM

DECEMBER 2021

Contents

Abbreviations 8

Executive summary 10

Introduction 12

1. Macroeconomic environment and market sentiment 13

2. Asset side 24

2.1. Assets: volume and composition 24

2.2. Asset quality trends 31

3. Liability side: funding and liquidity 45

3.1. Funding 45

3.2. Liquidity 55

4. Capital 60

5. Profitability 67

6. Operational resilience 81

6.1. Operational resilience: general trends 81

6.2. Digitalisation and ICT-related risks 84

6.3. Money laundering and terrorist financing risks 87

6.4. Further legal and reputational risks 88

7. Policy implications and measures 90

Annex I: Samples of banks 92

Annex II: Descriptive statistics from the EBA key risk indicators 96

List of Figures

Figure 1: 14-day notification rate of newly reported COVID-19 cases in the EU per 100 000 persons and 14-day notification rate of reported deaths per million population 13

Figure 2: Cumulative uptake of full vaccination as a percentage of total population 14

Figure 3: EU-27 Economic sentiment indicator (ESI) and Employment expectations indicator (EEI) 14

Figure 4: Household (left) and NFC (right) debt to GDP ratios 15

Figure 5: Evolution of outstanding debt securities issued by EU NFCs and lending to NFCs by EU/EEA banks (2014 = 100) 16

Figure 6: Quarterly bankruptcy declarations in the EU-27 (2015=100) 16

Figure 7: General government consolidated gross debt to GDP ratios 17

Figure 8: Stock market indices (January 2019 = 100) 18

Figure 9: European general government bond yields 18

Figure 10: European 10-year general government bond yields 19

Figure 11: iBoxx banks: spread (bp) and yield 19

Figure 12: EU housing prices and HCPI (2015=100) (left) and increase in housing prices in 2020 by country (right) 20

Figure 13: Financial risk categories, for which banks consider ESG factors in their risk management 21

Figure 14: Main data sources that banks are expecting to rely on in the short term for the purposes of ESG risk assessment and monitoring (according to priority, with 1 - high priority, and 4 - low priority) 22

Figure 15: Share of notional/exposure towards LCH Ltd and ICE Clear Europe (as % of total derivative CCR notional/exposure) 23

Figure 16: Evolution of asset composition (EUR tn) 24

Figure 17: Distribution of loans and advances by segments as of June 2020 (inner circle) and June 2021 (outer circle) 25

Figure 18: Growth in loans and advances by segment, December 2019 to June 2021 (December 2019=100) 25

Figure 19: Growth in loans and advances for selected sectors 26

Figure 20: Trend in residential and commercial real estate exposures by LTV ratio - June 2020 – June 2021 27

Figure 21: Exposures to non-EEA counterparties by country of domicile - June 2020 inner circle and June 2021 outer circle 28

Figure 22: Trend of total exposures of EU banks to Emerging Economies by country – June 2020 to June 2021 28

Figure 23: Portfolios that banks plan to increase in volume during the next 12 months by region 29

Figure 24: Sovereign exposures as a percentage of total assets by country – June 2021 30

Figure 25: Sovereign exposures, counterparty distribution (%) — June 2021 30

Figure 26: Sovereign exposures (EUR bn) and country distribution by domicile (%) — June 2021 31
Figure 27: Trend of NPL volumes (EUR billion – left) and NPL ratio (% - right) – March 2020 to June 2021 32
Figure 28: Trend in NPL volumes by country (EUR bn, left) and dispersion of NPL ratios (5th and 95th pct, interquartile range and median) (right) [31] 32
Figure 29: NPL cumulative net inflows by segment for the first two quarters of 2020 (December 2019 to June 2020) and 2021 (December 2020 to June 2021) (both EUR bn) 33
Figure 30: EU NPL ratios by segment (loans at amortised cost) 34
Figure 31: Trend in NPL ratios by sector, June 2020 to June 2021 34
Figure 32: Distribution of NFC exposures for selected sectors by country 35
Figure 33: Composite asset quality index of non-performing and forborne loans 35
Figure 34: Volume of loans (EUR bn), stage 2 (%), NPL ratio (%) of loans granted moratoria (left) and subject to PGS (right) 37
Figure 35: Evolution in stage allocation of EU banks of loans and advances at amortised cost over time 37
Figure 36: Changes in the allocation of loans by stages by bank (in p.p.), between June 2020 and June 2021 38
Figure 37: Stage 2 allocation of loans by segment (loans at amortised cost) 38
Figure 38: Change in stage 2 and stage 3 allocation between December 2019 to June 2021 vs. share of loans and advances towards the sectors most affected by COVID-19 - June 2021 39
Figure 39: New default rates by country of counterparty and by portfolio over time 40
Figure 40: EU accumulated impairments and provisions evolution over time (June 2020 = 100) [37] 40
Figure 41: Evolution of coverage ratios of NPLs by segment (loans at amortised cost) 41
Figure 42: Evolution of provisions by segment for total loans (left chart) and performing loans (right chart) (Dec 2019=100) 41
Figure 43: Banks' expectations on possible deterioration in asset quality in the next 12 months by segment 42
Figure 44: Planned loan growth for household (HH, left) and NFC loans (right), for domestic / other EU/EEA countries / non-EU/EEA countries (2020 actual [a] = 100, following years as forecast [f]) 43
Figure 45: Planned NPL growth for household (HH, left) and NFC loans (right), and related NPL ratios (2020 actual [a], following years as forecast [f]) 44
Figure 46: Maturing volumes of TLTRO-3 45
Figure 47: Breakdown of financial liabilities composition by country, June 2021 46
Figure 48: ECB lending to the euro area with focus on long-term refinancing operation (LTRO) (EUR bn) 47
Figure 49: Loan-to-deposit ratio (weighted average) and loan-to-deposit ratio dynamics (trends in numerator and denominator; December 2014 = 100), over time 48

Figure 50: Funding instruments banks intend to focus on in the next 12 months. 48
Figure 51: iTraxx financials (Europe, senior and subordinated, 5 years, bps) 49
Figure 52: Cash spreads of banks' debt and capital instruments (in bps) 50
Figure 53: Issuance volumes of EU banks' debt and capital instruments in the EU, Q1 – Q3 2019 - 2021 (in EUR bn) 51
Figure 54: Constraints to issuing subordinated instruments eligible for MREL 53
Figure 55: EU banks, issuances of green, social and sustainability bonds in the EU over time (EUR bn) 53
Figure 56: Volumes of derivatives (notional amounts; left) and other assets and liabilities linked to benchmark rates (which are not new RFRs; right) by type, EUR tn 54
Figure 57: Areas in which banks see the biggest challenges and potentially the biggest risks in their preparations in view of the interbank offered rate (IBOR) replacements 55
Figure 58: Banks distribution of the LCR (median, interquartile range, 5th and 95th percentiles) and composition of liquid assets as of December 2019 (inner circle) and June 2021 (outer circle) 56
Figure 59: Main components of the LCR as a share of total assets 56
Figure 60: Outflows (pre-weights) vs gross outflow requirements (left, June 2021), outflows (pre-weights) (right, June 2021) 57
Figure 61: LCR by currency (EUR LCR -left, USD LCR -middle, GBP – right 57
Figure 62: Net stable funding across EU countries 58
Figure 63: Net stable funding: distribution at bank level (left) and correlation with the LCR at country level (right) 58
Figure 64: Capital ratios (transitional definitions) 60
Figure 65: Leverage ratio (transitional definitions), number of banks per bucket, June 2021 61
Figure 66: CET1 capital components (EUR bn) 61
Figure 67: Dividends and share buy-backs (EUR bn) 62
Figure 68: RWA by type of risk (EUR tn) 63
Figure 69: Credit risk exposures (left) and RWA (right) for selected exposure classes, excluding e.g. securitisation and equity (EUR tn) 64
Figure 70: IRB parameters PD and LGD 65
Figure 71: CET1 capital requirements by country (in % of RWA), June 2021 65
Figure 72: Percentage of banks that intend to issue instruments in the next 12 months 66
Figure 73: Contribution to the RoE of the main P&L items, calculated as a ratio to total equity (2020-2021) 67
Figure 74: Evolution of the RoE by business model over time 68
Figure 75: RoE composition of cross-border universal banks (average from December 2014 to June 2021) 69

Figure 76: RoE composition of local universal banks (average from December 2014 to June 2021) 69
Figure 77: NOI as a percentage of total assets, June 2021 70
Figure 78: Evolution of NFC and household lending and deposit rates 71
Figure 79: NFC and household deposit rate by countries, June 2021 71
Figure 80: Evolution of AuM 72
Figure 81: Annual variation in the number of bank branches and employees 72
Figure 82: Operating expenses as percentage of total assets and CIR, June 2021 73
Figure 83: Staff productivity by country (June 2021; left) and evolution of staff productivity (right) 73
Figure 84: Accumulated impairments (2020 and 2021) and impairments (2021) as percentage of total assets 74
Figure 85: CoR by IFRS 9 stages 74
Figure 86: CoR estimations by region 75
Figure 87: CoR in the US and in the EU/EEA 76
Figure 88: Loan share composition in the EU/EEA (outer circle) and the US (inner circle) (June 2021) 76
Figure 89: Cost of risk in the US and in the EU/EEA 77
Figure 90: Provisions as % of total assets, June 2021 78
Figure 91: Banks' negative deposit rate policies 78
Figure 92: Banks' main reasons for not charging negative rates 79
Figure 93: Main areas targeted by banks to increase profitability (% of respondents ranking each area with 1-High Priority) 79
Figure 94: Main areas targeted by banks to reduce operating expenses (% of respondents ranking each area) 80
Figure 95: M&A deals in the EU/EEA (left) and the US (right) banking sector 80
Figure 96: Permanent organisational changes banks put in place as response to the COVID-19 crisis 82
Figure 97: Main drivers of operational risk as seen by banks 82
Figure 98: Total losses in operational risk as a share of CET1 and number of new events over time, 2014 – 2020 83
Figure 99: Total losses in operational risk as a share of CET1, by country, December 2020 84
Figure 100: Banks' budgetary changes planned from Q2 2021 onwards as a result of COVID-19 86
Figure 101: Status of adoption of financial technology by the EU banks (YoY comparison), 2018 - 2021 86
Figure 102: Expectations of ML/TF risk exposure related to specific product and business lines 87
Figure 103: Net provisions for pending legal issues and tax litigation as a share of total assets by country (2020) and for the EU (2018-2020) 89

Abbreviations

€STR	Euro short-term rate
ABS	asset backed security
AML	anti-money laundering
APP	asset purchase programme
ASF	available stable funding
AuM	assets under management
BIS	Bank for International Settlements
bp(s)	basis point(s)
BRRD	Bank recovery and resolution directive
CA	Competent authorities
CCB	capital conservation buffer
CDS	Credit Default Swap
CECL	current expected credit loss
CEE	central and eastern European
CET1	common equity tier 1
CFT	countering the financing of terrorism
CG	central governments
CIR	cost to income ratio
CoE	cost of equity
CoR	cost of risk
COREP	common reporting (prudential supervisory reporting)
CRD	Capital Requirements Directive
CRDnM	customer resources distributed but not managed
CRE	Commercial Real Estate
DLT	distributed ledger technology
DORA	Digital Operational Resilience Act
EBA	European Banking Authority
ECB	European Central Bank
ECDC	European Centre for Disease Prevention and Control
ECL	expected credit losses
EEA	European economic area
EEI	Employment expectations indicator
EME	emerging market economies
ENISA	EU Agency for Cybersecurity
EONIA	Euro Over Night Index Average
ESA	European Supervisory Authorities
ESG	environmental, social and governance
ESI	Economic sentiment indicator
EU	European Union
EURIBOR	Euro Interbank Offered Rate
FASB	Financial Accounting Standards Board
FBL	forborne loan(s)
Fed	federal reserve (system) (of the US)
GACS	Garanzia Cartolarizzazione Sofferenze
GDP	gross domestic product
GFC	global financial crisis
G-SIIs	global systemically important institution(s)
HCIS	high climate impact sectors
HCPI	harmonized consumer price index
HH	household
HoldCo	holding company
IASB	International Accounting Standards Board
ICT	information and communication technology/ technologies
IFRS	International Financial Reporting Standard
IMF	International Monetary Fund
IO	international organisations
IPCC	United Nations Intergovernmental Panel on Climate Change

IRB	Internal ratings based
ISDA	International Swaps and Derivatives Association
LCR	liquidity coverage ratio
LGD	loss given default
LIBOR	London interbank offered rate
LTRO	long-term refinancing operation
LTV	Loan-to-Value
M&A	mergers and acquisitions
ML/TF	money laundering / terorist financing
MREL	minimum requirement for own funds and eligible liabilities
MRO	main refinancing operations
NFC	non-financial corporate
NFCI	net fee and commission income
NII	net interest income
NIM	net interest margin
NOI	net operating income
NPL	non-performing loan(s)
NSFR	net stable funding ratio
NTI	net trading income
OCR	overall capital requirements
O-SIIs	other systemically important institution(s)
P&L	profit and loss
PD	probability of default
PEPP	Pandemic Emergency Purchase Programme
PGS	public guarantee scheme(s)
POCI	originated credit-impaired financial assets
PSE	public sector entities
PtB	price to book
RAQ	risk assessment questionnaire
RAR	risk assessment report (report on the risk assessment of the European Banking System)
RFRs	risk free arte(s)
RGLA	regional governments and local administrations
RoE	return on equity
RSF	required stable funding
RW	Risk Weight
RWA	risk-weighted assets
SA	standardised approach
SARON	Swiss Average Rate Overnight
SDW	Statistical Data Warehouse
SME	small and medium-sized enterprises
SOFR	Secured Overnight Financing Rate
SPE	special purpose entities
TLPT	Threat-Led Penetration Testing
TLTRO	targeted long-term refinancing operation
UK	United Kingdom
YoY	year on year

Executive summary

Despite the robust economic recovery in the last quarters and the progress in COVID-19 vaccination, vulnerabilities remain. Increasing vaccination rates have allowed social distancing and mobility restrictions to be eased, hence fuelling economic growth. Yet supply bottlenecks and rising energy prices have driven inflation to levels not seen since before the Global Financial Crisis (GFC). Public and private debt levels have further risen during the pandemic. Overly stretched valuations in financial and housing markets might prompt abrupt corrections.

Banks have increased lending to small and medium enterprises (SMEs) and grown their mortgage exposures. Banks' total assets have increased slightly, driven by a further increase in cash balances. Despite the overall decrease in loans and advances, lending to SMEs and households has risen. The increase in the latter is mostly explained by the rise in mortgage lending. By contrast, outstanding loans to large corporates have declined on the back of increasing non-financial corporations (NFC) debt issuance. The volume of publicly guaranteed loans has stabilised while exposures under European Banking Authority (EBA)-compliant moratoria expired for approx. 85% of the loans to which this measure has been applied.

Asset quality has improved overall but concerns remain for loans to specific sectors and those that have benefited from support measures. The non-performing loan (NPL) ratio has further decreased this year, which was not least supported by several large NPL securitisations. However, the NPL ratio of the exposures to the sectors most affected by the pandemic is on an upward trend. The share of loans classified under stage 2 under the International Financial Reporting Standard (IFRS 9) has started to decline, but remains above pre-pandemic levels. The volume of forborne loans has seen an uninterrupted upward trend since the start of the pandemic. The asset quality of loans under public guarantee schemes (PGS) and under moratoria is a source of concern, as an increasing share of these loans are being classified under stage 2 or as NPL. An analysis of new default rates shows that they tend to be higher for exposures from emerging market economies (EME). Whereas new default rates are slightly lower in the European Union (EU) / European Economic Area (EEA) region compared to one year ago, they have edged higher in EMEs, raising concerns for the banks exposed to these markets.

The positive mood in funding markets and the availability of central bank funding allow banks to maintain comfortable liquidity positions. Despite recent rises in yields and some bouts of volatility, banks' debt spreads have remained at relatively contracted levels, allowing issuers to make progress in building up their minimum requirements of eligible liabilities (MREL) buffers. Even though an increasing share of banks report the application of negative rates to depositors, customer deposits have further increased. Banks have continued to increase their take-up of central bank funding and more than half of central bank-eligible assets and collateral are now encumbered. Banks' main liquidity indicators show strong positions across the EU/EEA. However, a change in the share of central bank funding and the impact of changes in interest rates might affect the stable funding structures of banks. Assuming that central bank funding is excluded from the numerator and that no counterbalancing measures are applied, the net stable funding ratio (NSFR) would fall by around 15 p.p. to about 115%.

Banks have made some progress related to environmental, social and governance (ESG) risk considerations. The share of ESG bonds of total bank issuances has increased substantially over the past few years. Banks have started recognising ESG risks as drivers for traditional financial risk categories, e.g. credit risk, and integrating ESG risk considerations into their risk management. However, there is significant progress to be made, including in areas such as business strategies, governance arrangements, risk assessments and monitoring. In addition, data gaps continue to challenge the incorporation of ESG considerations into banks' risk man-

agement. The lack of data often constrains banks' efforts to develop methodologies to identify, assess and monitor ESG risks. Public disclosures as well as bilateral engagement with counterparties and external data providers currently seem the main sources for ESG risk assessment and monitoring.

The average Common Equity Tier 1 (CET1) ratio has increased this year on the back of retained earnings and reserves. Strong results in the first half of 2021 have boosted capital levels while factors like the increasing share of cash balances and central bank reserves over total assets, PGS, or the SME and the infrastructure-supporting factors have helped to keep risk weighted-assets (RWA) almost flat. The leverage ratio has gone up mainly because of the European Central Bank (ECB) decision to allow banks to exclude certain central bank exposures from the computation. The vast majority of banks adhered to supervisory recommendations and refrained from distributing 2019 profits, yet catch-up dividends or share buybacks will presumably be exercised in the last quarter of 2021 or in 2022.

Lower impairment costs have increased profitability, but structural challenges remain. The average return on equity (RoE) of EU/EEA banks is still below the estimated cost of equity (CoE). Banks' net operating income (NOI) has not recovered to pre-pandemic levels. The low and negative interest rate environment is still weighing on lending margins. In contrast, net fee and commission income (NFCI) has grown, substantially boosted by asset management activities. Despite the acceleration in branch closures during the pandemic, operating expenses have stabilised in the past year as pre-existing working arrangements have gradually resumed. Staff productivity – measured as net operating income minus provisions and impairments generated by each euro of staff expenses – has improved on the back of lower impairments. Supervisory data shows that this indicator also depends on external factors such as the interest rate environment as well as on internal ones like the level of digitalisation.

Operational risk losses increased during the pandemic. The number of operational loss events has reached its highest level since data has been available. Though the annual materialised losses from these events is lower than in the 2014-2018 period, it strongly increased last year. The growing usage of and reliance on technology has been accompanied by a rising number of information and communication technologies (ICT) and security-related incidents. Money laundering and terrorist financing (ML/TF) risks may rise not least due to factors such as reliance on remote onboarding solutions.

Introduction

This report describes the main developments of and trends in the EU/EEA banking sector since June 2020 and provides the EBA outlook on the main risks and vulnerabilities ([1]). As in 2020, the December 2021 risk assessment report (RAR) is published along with the EU-wide 2021 transparency exercise.

The RAR is based on qualitative and quantitative information collected by the EBA. The report's data sources are the following:

- EU/EEA supervisory reporting;
- The EBA risk assessment questionnaires (RAQ), addressed to banks and market analysts;
- Market intelligence as well as qualitative micro-prudential information.

The RAR builds on the supervisory reporting data that competent authorities submit to the EBA on a quarterly basis for a sample of 155 banks from 28 EEA countries (125 banks at the highest EU/EEA level of consolidation from 25 countries) ([2]). Liechtenstein and Norwegian banks have not yet implemented the reporting framework based on CRR2/CRD5. Therefore, Liechtenstein and Norwegian numbers are not included in the figures based on supervisory reporting data. In addition, following the United Kingdom's (UK's) departure from the EU, banks domiciled in the United Kingdom are no longer included in the figures based on supervisory reporting data. Based on total assets, the sample covers about 80% of the EU/EEA 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 ([3]). The text and figures in this report refer to weighted average ratios unless otherwise indicated ([4]).

The RAQ is conducted by the EBA on a semi-annual basis, with one questionnaire addressed to banks and another addressed to market analysts ([5]). Answers to the questionnaires were provided by 59 European banks (Annex I) and 8 market analysts during August and September 2021. The report also analyses information gathered by the EBA from informal discussions as part of the regular risk assessments and ongoing dialogue on risks and vulnerabilities of the EU banking sector. The cut-off date for the market data presented in the RAR was 30 September 2021, unless otherwise indicated.

Along with the RAR, the EBA is disclosing bank-by-bank data as part of the 2021 EU-wide transparency exercise for four reference dates (September 2020, December 2020, March 2021 and June 2021). 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 2021 transparency exercise includes 120 banks from 25 countries at the highest level of consolidation in the EU/EEA as of June 2021. The EU-wide transparency exercise relies entirely on COREP/FINREP reporting data as well as COVID-19 measures reporting data submitted in accordance with EBA Guidelines EBA/GL/2020/07.

([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 2021.

([3]) Being an unbalanced sample, the number of reporting banks per country can display minor variations between quarters, which might accordingly affect quarterly changes in absolute and relative figures.

([4]) There might be slight differences between some of the risk indicators covered in the Q2 2021 version of the EBA Risk Dashboard, and this report as a result of data resubmissions by banks. 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.

([5]) The results of the RAQ are also published separately, together with the EBA's risk dashboard, on a semi-annual basis. These published RAQ booklets (latest published version is from spring 2021) also include explanations of the questionnaire and the analysis of the RAQ responses.

1. Macroeconomic environment and market sentiment

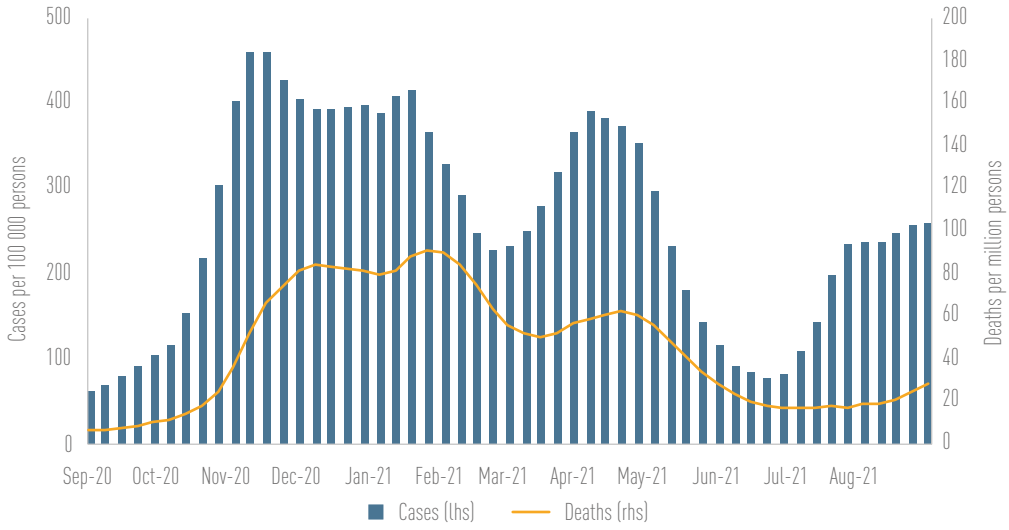
Uneven vaccination progress could delay the end of the pandemic

In 2020, the world economy suffered its largest shock since World War II. The rapid spread of COVID-19 forced countries all over the world to apply social distancing and containment measures to prevent infections and the collapse of health systems. These measures proved effective and in spring 2021, countries started relaxing the restrictions. Nonetheless, the pace at which containment measures have been lifted differs substantially across the world and several restrictions to social mobility remain, especially in EME countries.

Against this backdrop, the global gross domestic product (GDP) collapsed and ended 2020 with a drop of 3.2% according to the International Monetary Fund (IMF) ([6]). In the EU, GDP fell by 6%, with Spain, Italy and Greece leading the decrease with GDP drops of 10.8%, 8.9% and 8.2%, respectively ([7]). However, in contrast to previous crises, the EU unemployment rate did not grow significantly. The continuous improvement in economic conditions and public support measures such as furlough schemes resulted in a decrease in unemployment. According to Eurostat, the EU unemployment rate had its peak in January and February 2021 when it reached 7.8%. Those workers whose activities could not be performed with the restrictions in place were widely put under furlough schemes, while fiscal and monetary authorities provided massive stimulus. In August 2021 the EU unemployment rate stood at 6.8% (7.7% in August 2020) reaching almost pre-pandemic levels (6.7% in December 2019).[8]

Following the approval of the first vaccines in late 2020, the vaccination process started in the EU. However, the initial disruptions in the vaccine supply chain and the emergence of new and more contagious variants such as Delta resulted in renewed containment measures. As the vaccination roll-out has advanced, each new wave of infections has caused fewer hospitalisations and deaths (Figure 1).

Figure 1: 14-day notification rate of newly reported COVID-19 cases in the EU per 100 000 persons and 14-day notification rate of reported deaths per million population
Source: European Centre for Disease Prevention and Control (ECDC), EBA calculation.



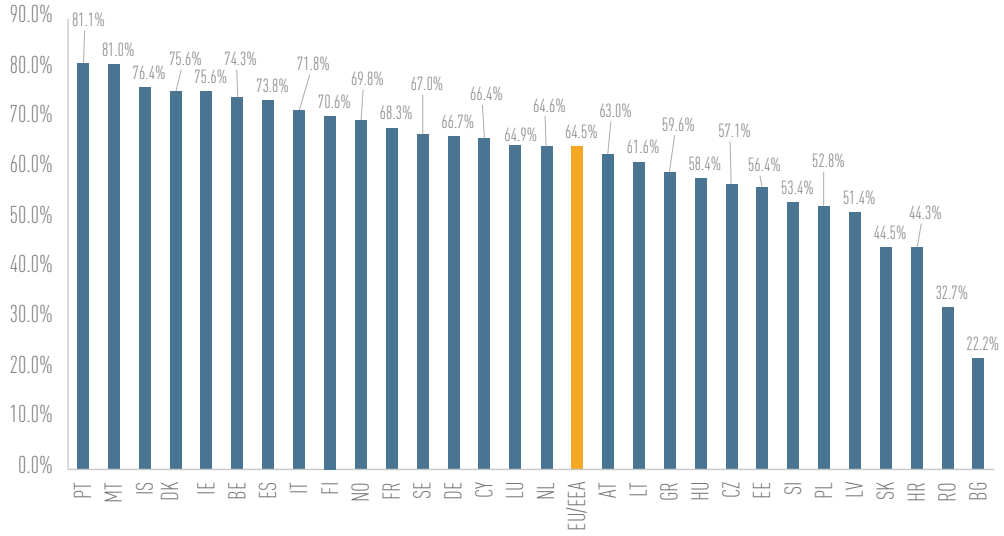
([6]) For a detailed discussion on the topic, see World Economic Outlook, IMF, October 2021.

([7]) For a detailed discussion on the topic, see Summer 2021 Economic Forecast: Reopening fuels recovery, European Commission, July 2021.

([8]) For a detailed discussion on the topic, see Unemployment Statistics, European Commission, August 2021

Yet uncertainties remain. The efficacy of the vaccines over time has not yet been proven. Low vaccination rates in many countries – in particular developing countries – remain a threat to health systems and economies and provide a ground for the emergence of new variants for which existing vaccines might not be effective (Figure 2).

Figure 2: Cumulative uptake of full vaccination as a percentage of total population
Source: European Centre for Disease Prevention and Control (ECDC), EBA calculation.

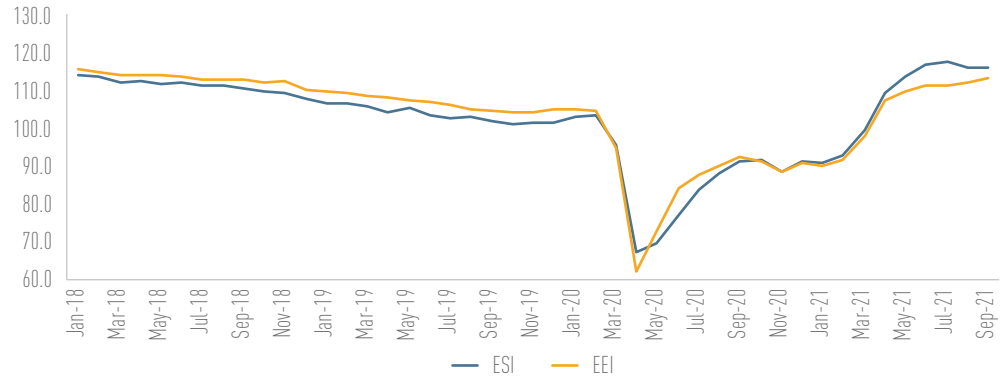


GDP is recovering fast

According to the IMF ([9]), global GDP is expected to increase by 5.9% in 2021 and by 4.9% in 2022 driven by a strong recovery in emerging markets and in the US. In the EU, according to the European Commission, GDP is expected to grow by 5% in 2021 and 4.3% in 2022. In 2021 Estonia and Ireland will register the highest GDP growth (9% and 14.6% respectively). Among the largest economies, Germany is expected to grow by 2.7%, France by 6.5%, Italy by 6.2% and Spain by 4.6% ([10]).

Leading macroeconomic indicators also show a positive outlook. The Economic sentiment indicator (ESI) and the Employment expectations indicator (EEI) recovered after the fall registered during the most acute phases of the pandemic. They reached their pre-pandemic levels in April 2021 as COVID-19 restrictions eased. In September 2021, the ESI stood at 116.6 (25 p.p. above its September 2020 level), while the EEI was at 113.6 points (+1 p.p. compared to the levels observed a year before) (Figure 3). However, the ESI has been steady since June. This is not least due to the expansion of the Delta variant. The latter weighed on the services and the retail trade confidence indicators, which, in turn, have offset the improvements observed in the construction confidence indicator.

Figure 3: EU-27 Economic sentiment indicator (ESI) and Employment expectations indicator (EEI)
Source: European Commission, EBA calculation.



([9]) See *World Economic Outlook*, IMF, October 2021.

([10]) See *Autumn 2021 Economic Forecast: From recovery to expansion, amid headwinds*, European Commission, November 2021.

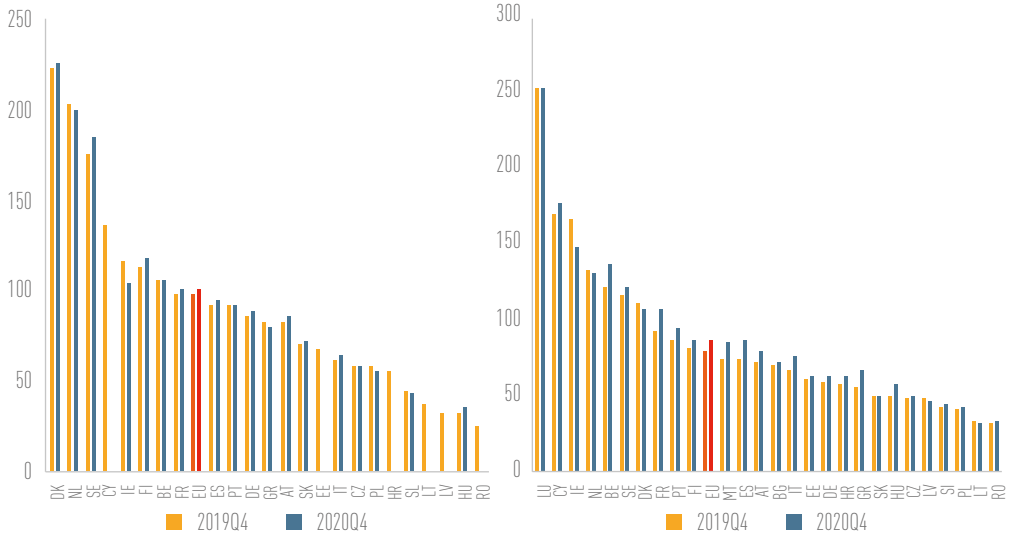
Macro-economic uncertainty continues to loom

Uncertainty surrounding the recovery of the global economy remains high. There are risks of the emergence of new COVID variants for which existing vaccines might not be effective, posing a constant threat to the economic recovery. The GDP recovery has come in parallel with an increase in prices that have led inflation to levels not seen since before the GFC. In the EU, the harmonised consumer price index (HCPI) reached 2.2% in July. Inflation is explained by a base effect, since in 2020 companies were dropping their prices to get rid of their stocks ahead of the lockdowns. Yet inflationary pressures also seem to be driven by supply chain and transport bottlenecks that, in some cases, have their origins in developing countries. When a new wave of contagion strikes, authorities in these countries might be forced to apply tough containment measures. In September, rises in energy prices added to supply chain risks. In the EU, the lack of microchips and semiconductors has already forced some firms in particular in the automotive sector to stop their production ([11]).

Major central banks are considering inflationary pressures as transitory. In its September meeting, the ECB decided to maintain its main reference rates unchanged and keep the net purchases under the Asset Purchase Programme (APP) at a monthly pace of EUR 20 bn. It also maintained its intention to conduct net asset purchases under the Pandemic Emergency Purchase Programme (PEPP) of EUR 1,850 bn until at least the end of March 2022. Nonetheless, the ECB also opted to slow down the pace of net asset purchases under this programme ([12]). Similarly, the Federal Reserve (Fed) hinted in September that it could begin reducing its monthly bond purchases this year, though it clarified that interest rates would remain at the current levels in the medium term ([13]). However, if inflation proves persistent, central banks might withdraw stimulus sooner than expected, with a presumably subsequent increase in market yields. This might pose a threat for those households, firms and governments that have exited the pandemic highly indebted.

The pandemic also resulted in rising debt levels across the globe. In the EU, the ratio of household debt to GDP went up from 99% in 2019 to 101.6% in 2020. By countries, household debt is particularly high in some countries in the north of Europe such as Denmark, the Netherlands and Sweden. The increase in the NFC debt to GDP ratio was much sharper. It rose from 76.4% in 2019 to 89.9% in 2020 (Figure 4) ([14]).

Figure 4: Household (left) and NFC (right) debt to GDP ratios
*Source: ECB Statistical Data Warehouse (SDW), Eurostat, and EBA own calculation. *The EU average is based only on the countries for which data is available in both years.*



([11]) See for example *Semiconductors pose an unwelcome roadblock for carmakers*, The Economist, August 2021, or *Seat anuncia un nuevo ERTE hasta junio de 2022 por la falta de semiconductores*, El País, September 2021,.

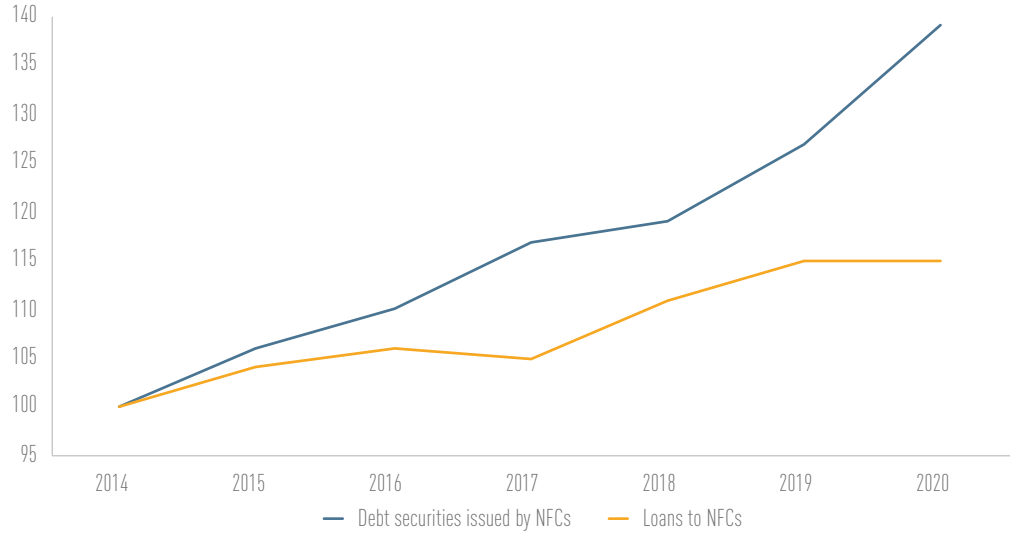
([12]) For a detailed discussion on the topic, see Monetary policy decisions, ECB Governing Council, September 201.

([13]) For a detailed discussion on the topic, see Federal Open Market Committee statement, Fed, September 2021.

([14]) The debt to GDP ratio is also affected by the denominator, due to the contractions of GDP amid the COVID-19 outbreak.

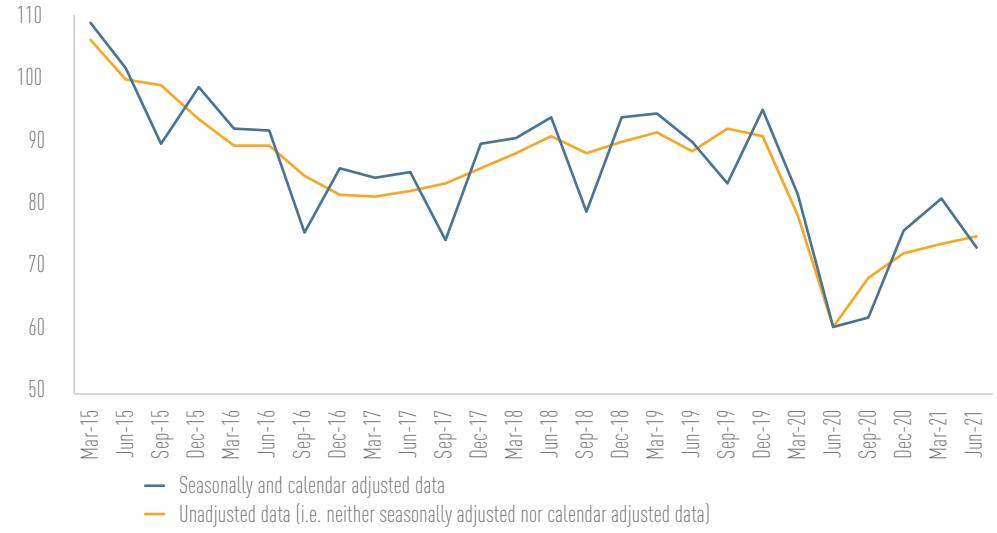
The increase in NFC debt has been mainly driven by an increase in debt securities. While loans to NFCs remained roughly stable in 2020, the outstanding volumes of debt securities rose by 10% (Figure 5). These trends might indicate an increasing preference of large NFCs for capital market financing vs bank lending finance. Although capital market financing entails substantial fixed costs for issuers, it also offers some advantages such as access to a more diversified pool of lenders.

Figure 5: Evolution of outstanding debt securities issued by EU NFCs and lending to NFCs by EU/EEA banks (2014 = 100)
*Source: ECB SDW and supervisory reporting. * "Debt securities" refers to debt securities issued by EU-27 NFCs while "loans" refers to EU/EEA bank loans to NFCs based on EBA supervisory reporting (see Chapter 2.1).*



Despite the increase in NFC debt and the economic contraction of 2020, the number of declarations of bankruptcies in the first half of 2020 fell significantly according to Eurostat ([15]). Bankruptcy declarations in the EU decreased by around 35% in the first two quarters of 2020. Although they have rebounded thereafter, they are still below the average of the last five years (Figure 6).

Figure 6: Quarterly bankruptcy declarations in the EU-27 (2015=100)
Source: Eurostat, EBA calculation.

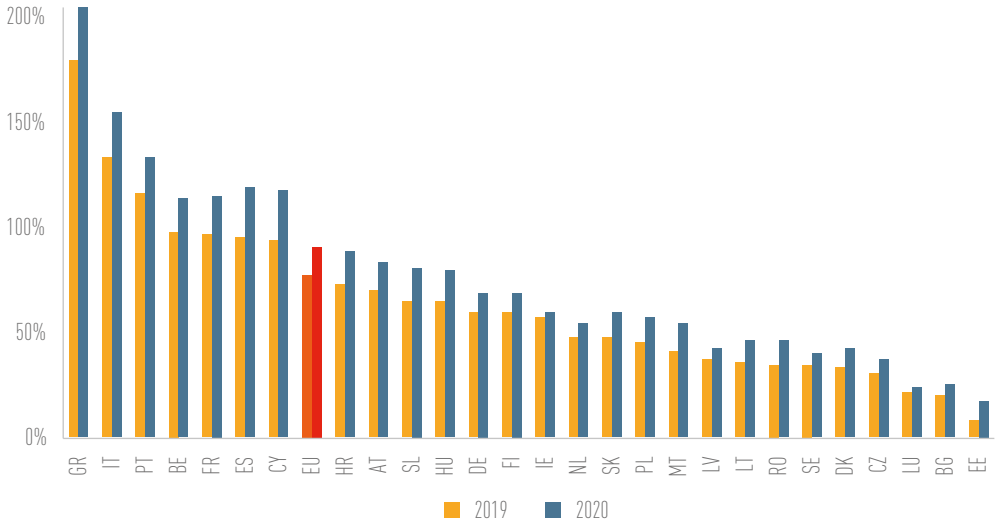


([15]) For a detailed discussion on the topic, see Quarterly registrations of new business and declarations of bankruptcies, European Commission, August 2021.

Government measures supporting businesses during the crisis are one explanation for the decline in bankruptcies. They include suspensions of insolvency regimes, tax payment breaks, subsidised furlough schemes, moratoria on loan repayments, grants for businesses and households, and PGS among others. Such measures have provided corporates and households with breathing space to avoid liquidity problems. However, all these measures might impair the ability of the lenders to analyse and forecast the performance of their borrowers. Moreover, once public support expires, bankruptcy cases might pile up in commercial courts, resulting in delays in collateral enforcement and lower recovery rates.

Lower income as well as rising expenditures amid the pandemic have resulted in a significant rise in public debt. The average public debt to GDP ratio of EU countries already stood at 77.5% prior to the pandemic. The fiscal response to the pandemic along with the sharp decrease in output drove the ratio further up to 92.9% (Figure 7) ([16]). Although the European Commission suspended deficit rules until the end of 2022, sooner or later EU countries will have to unwind the pandemic fiscal stimulus and undertake fiscal consolidation programmes. Though essential to guarantee long-term debt sustainability and economic growth, fiscal austerity might affect economic growth dynamics in the medium term.

Figure 7: General government consolidated gross debt to GDP ratios
Source: Eurostat, EBA calculation.



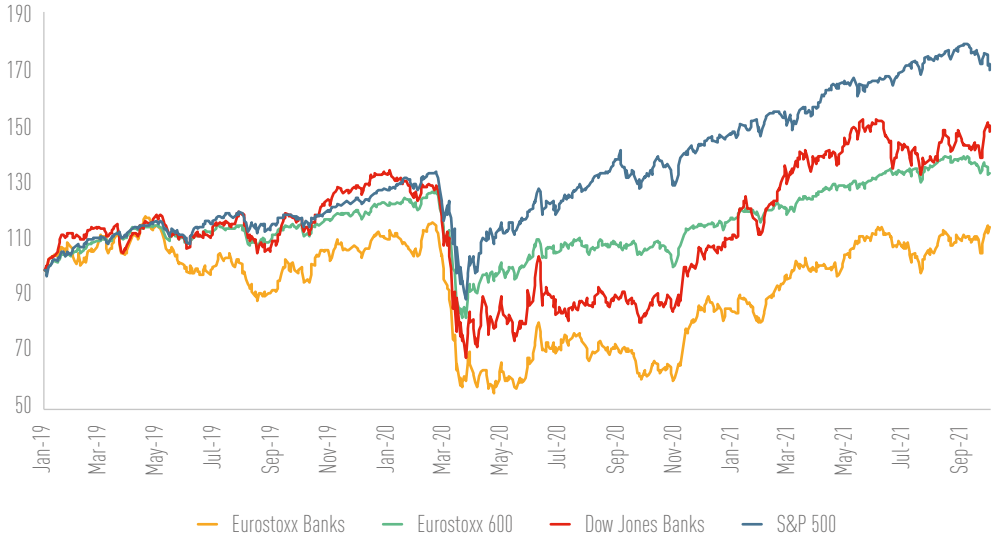
Potential overvaluation of asset prices a risk in some financial markets

After the sharp falls registered in February and March 2020, global financial markets have registered a rally only interrupted by sporadic bouts of volatility. This rally further accelerated in late 2020 with the news of vaccine breakthroughs and additional policy support in advanced economies. The market dynamic continued afterwards, supported by central banks' accommodative monetary policy. The Eurostoxx 600 and the Eurostoxx banks are up by 26% and 84%, respectively, compared to September 2020 (Figure 8).

After these sharp rises, equity indices tend to show some signs of overvaluation. Although the current price to book (PtB) ratio of the Eurostoxx 600 is not far away from the average of the last five years (2.1 times vs 1.9 times, respectively), other indices show much richer valuations. For instance, the MSCI World trades at 3.1 times its book value (vs an average of 2.5 times over the last five years). Similarly, the S&P 500 shows a PtB of 4.6 (3.5 over the last five years).

([16]) The debt to GDP ratio is also affected by the denominator, due to the contractions of GDP amid the COVID-19 outbreak.

Figure 8: Stock market indices (January 2019 = 100)
Source: Bloomberg, EBA calculation.

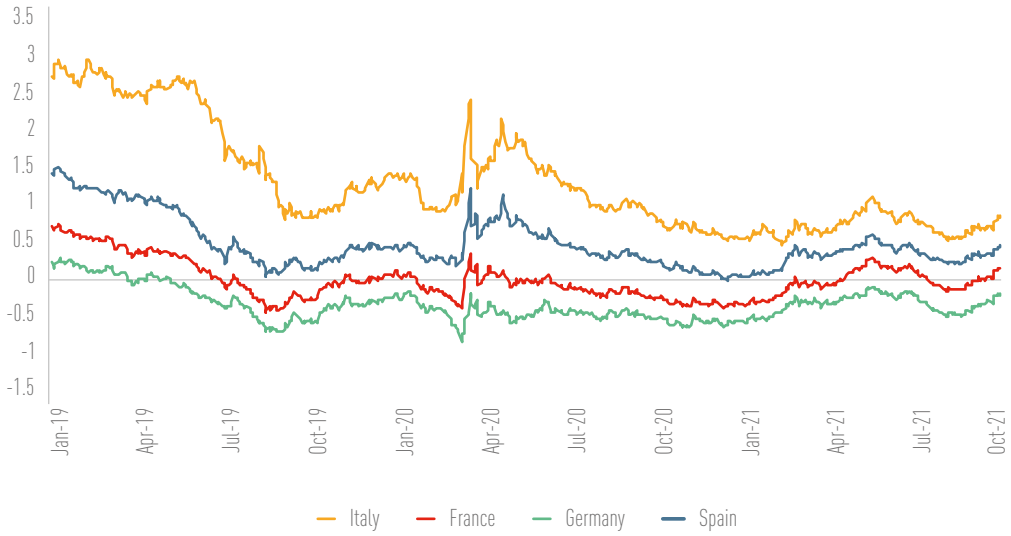


Frothy valuations are also observed in private bond markets. The credit default swap (CDS) spreads of EU and US high yield are very close to the minimums observed just before the COVID-19 outbreak. If the inflationary pressures translate into higher rates and the economic recovery slows down, an abrupt correction could also take place in private debt markets, maybe also affecting spreads.

Figure 9: European general government bond yields
Source: Bloomberg, EBA calculation.

Government yields increased in the first half of 2021 amid a better economic outlook and rising inflation. Market participants feared the unwinding of monetary stimulus. However, so far, central banks made it clear that temporary deviations of inflation from their target were not a major source of concern and, thus, the withdrawal of extraordinary pandemic measures would be carried out smoothly. Although these communiqués brought yields again down, recent inflationary pressures have driven yields up again (Figure 10).

Figure 10: European 10-year general government bond yields
Source: Bloomberg, EBA calculation.



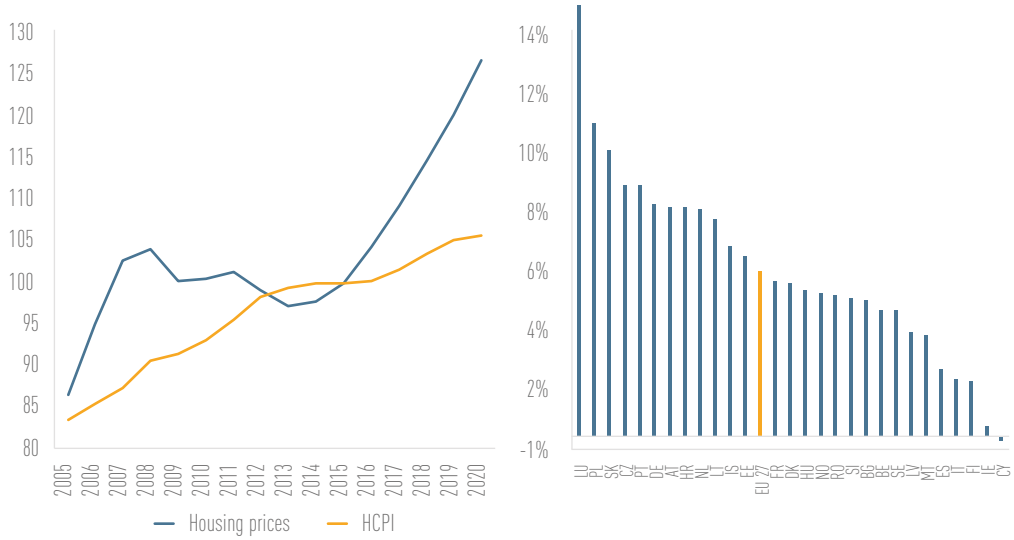
A similar trend has been observed in bank debt with the yield of the iBoxx banks index increasing in early 2021 to later decrease. Nonetheless, the movements in yields have not resulted in major movements in spreads, which have remained on a continuous decreasing trend in 2021 (Figure 11).

Figure 11: iBoxx banks: spread (bp) and yield
Source: S&P Market Intelligence, EBA calculation.

Significant vulnerabilities also stem from recent developments in the real estate sector in China. Even though the crisis seems to be limited to a single name event such as Evergrande for the moment, it might spread further across the Chinese real estate sector and the country's whole economy, even affecting the global economy as a whole in second or third round effects.

Signs of overvaluation are also observed in the housing markets of EU countries. Despite the economic contraction of 2020, household savings seem to have increased mainly because of two factors. On the one hand, the extensive application of subsidised furlough schemes has allowed families to maintain their income almost unaffected during the pandemic. On the other hand, lockdowns and social mobility restrictions have reduced consumption. These factors, coupled with a low interest rate environment, as well as, for instance, the reactivation of postponed investment decisions, and the change in preferences towards suburban and more spacious housing have resulted in rising housing demand. On the supply side, disruptions in works and inflationary pressures on materials and other construction costs have slowed down supply. As a result, in 2020 housing prices not only did not slow down but the upward trend of previous years accelerated (Figure 12).

Figure 12: EU housing prices and HCPI (2015=100) (left) and increase in housing prices in 2020 by country (right)
Source: Eurostat, EBA calculation.



Climate change-related events have been on the rise

Last August, the United Nations Intergovernmental Panel on Climate Change (IPCC) released its 2021 AR6 climate change report ([17]). According to the IPCC, the temperature of the global surface today is already 1.09 degrees Celsius higher compared to the period 1850-1900, and the past five years have been the hottest on record since 1850. The report also stated that the Earth is warming at a rate not seen in the last 2,000 years. Levels of carbon dioxide in the atmosphere are higher than in the past two million years. Climate change is also generating erratic and severe weather events. The IPCC made it clear that human influence was to blame for global warming.

Banks might suffer financially the consequences of climate change through several ways. Climate-related risks and environmental risks in more general terms may drive conventional financial risk categories, such as credit, market and operational risk, including reputational risk, through a number of transmission channels ([18]). Banks' exposures to borrowers affected by extreme climate-related physical events (physical risk) might be subject to increased credit risk, for example, due to the decreased value of real estate collateral or lower profitability. Banks might also be subject to transition risks derived from the impact on their borrowers through public policies and consumer activism intended to achieve a less polluting, greener and more sustainable economy. For instance, banks' exposures to firms and individuals whose activities could be affected by regulatory initiatives aiming to tackle detrimental impacts of climate change, such as higher carbon tax, might experience a rise in credit risk.

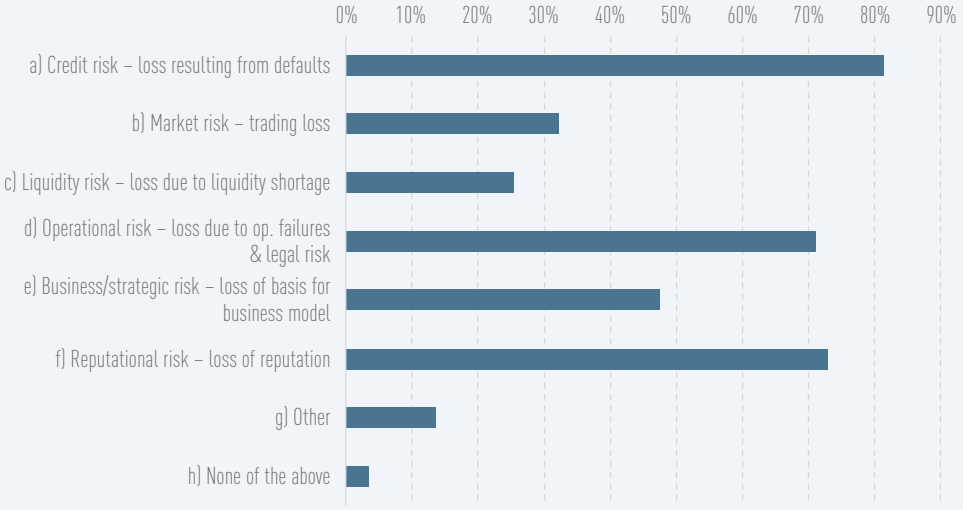
([17]) For a detailed discussion on the topic, see AR6 Synthesis Report: Climate Change 2022, IPCC, August 2021.

([18]) For a detailed discussion on the topic, see EBA report on management and supervision of ESG risks for credit institutions and investment firms (EBA/REP/2021/18).

Box 1: Integration of ESG-related risk considerations into bank risk management

ESG risk considerations are becoming more important for the EU banking sector. This is, for instance, also reflected in rising ESG bond issuances (see Chapter 3.1). The EBA RAQ shows that more than 80% of EU banks consider ESG factors in their risk management, mostly as a driver for credit risk stemming from counterparty defaults (Figure 13). Similarly, over 70% of EU banks reflect ESG factors in their risk management as a driver for reputational and operational risks. Only a small number of banks indicate that they do not yet consider ESG factors in their risk management.

Figure 13: Financial risk categories, for which banks consider ESG factors in their risk management
Source: RAQ for banks.



Banks use a range of methodologies in the assessment and measurement of ESG risks. The exposure method (based on ESG scores or ratings), risk framework method including scenario analysis or stress testing, and the portfolio alignment method are widely used by banks participating in the RAQ ([19]). The assessment metrics that banks use to assess climate-related risk are mostly based on financed emissions, i.e. counterparties' emissions associated with bank lending and investment activities. To date, these banks mostly carry out the assessment of financed emissions in selected portfolios only. In addition, many banks also look at environmental scores or ratings of their counterparties as well as the share of green and environmentally harmful exposures in their portfolios.

Ensuring the preparedness for and resilience of the banking sector to ESG risks is one of the core objectives of the EBA Report on management and supervision of ESG risks ([20]). The EBA expects banks to incorporate ESG risk-related considerations in their strategies, objectives and governance structures, and to manage these risks as drivers of financial risks in their risk appetite and internal capital allocation process. The EBA also advises institutions to develop methodologies and approaches to test their long-term resilience against ESG factors and risks, including the use of scenario analysis. The EBA together with other authorities will continue to assess ESG-related developments and risks in the banking sector.

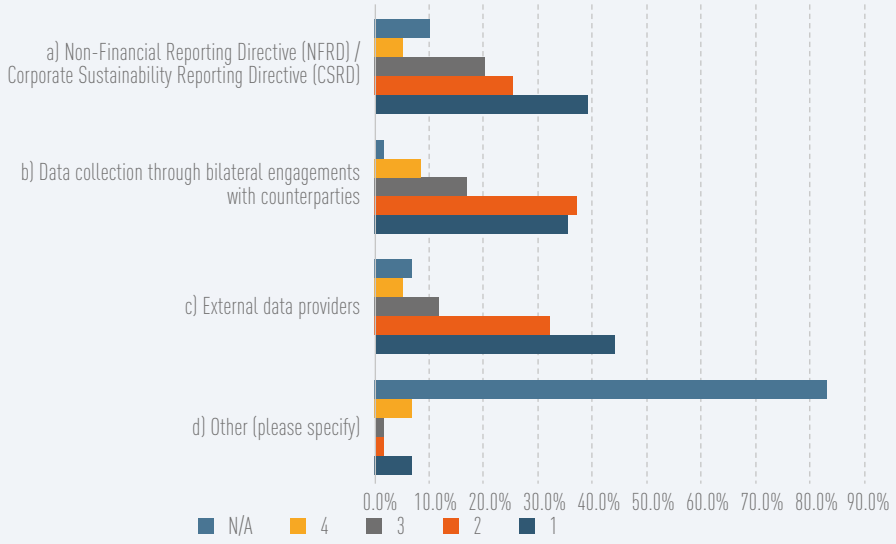
Lack of data remains a challenge for banks towards incorporating ESG-related considerations in their risk management. Several policy initiatives, including developments on supervision and disclosures, aim to address these challenges. Identifying and monitoring ESG risks is important, given EU banks' exposure to corporates

([19]) For a more detailed discussion of the different method types, see the EBA report on management and supervision of ESG risks for credit institutions and investment firms (EBA/REP/2021/18).

([20]) See the EBA report on management and supervision of ESG risks for credit institutions and investment firms (EBA/REP/2021/18).

in high climate impact sectors (HCIS) [21]. While some information needed to capture ESG risks (such as data on carbon emissions) is available for large corporate exposures, only limited information is available for other asset classes such as SMEs and households. Public disclosures, bilateral engagement with counterparties and external data providers currently seem to be the main sources used for ESG risk assessment and monitoring (Figure 14).

Figure 14: Main data sources that banks are expecting to rely on in the short term for the purposes of ESG risk assessment and monitoring (according to priority, with 1 - high priority, and 4 - low priority)
Source: RAQ for banks.



[21] See the Nomenclature des Activités Économiques dans la Communauté Européenne (NACE); code sectors A to H and L have been classified as highly contributing to climate change according to Recital 6 of the Commission Delegated Regulation (EU) 2020/1818 supplementing Regulation (EU) 2016/1011 as regards minimum standards for EU Climate Transition Benchmarks and EU Paris-aligned Benchmarks.

Box 2: Brexit and risks to the EU financial system from the reliance on United Kingdom (UK)-based CCPs

The decision of the UK to leave the EU has raised concerns as to the financial stability risks due to the significant reliance of the EU financial system on UK-based central counterparties (CCPs) for derivatives. One way to address this concern is to reduce the exposure of EU institutions to systemically important UK-based CCPs – possibly by moving transactions to CCPs within the EU that are subject to EU law.

On 21 September 2020, the European Commission adopted a temporary equivalence decision extending equivalence of the regulatory framework applicable to central counterparties established in the UK until 30 June 2022 [22]. This decision was meant to provide the time and legal certainty needed for EU banks and other financial market participants to reduce their exposure to UK-based CCPs as well as for EU-based CCPs to develop their clearing capacity. Considering the relatively high exposures that are still observed in EU banks' prudential reporting (COREP), the EBA will carry on monitoring concentration risks.

[22] See the Commission Implementing Decision (EU) 2020/1308 of 21 September 2020. On 10 November 2021 the European Commission announced that it will propose an extension of the equivalence decision in early 2022.

EU bank exposure to UK-based CCPs

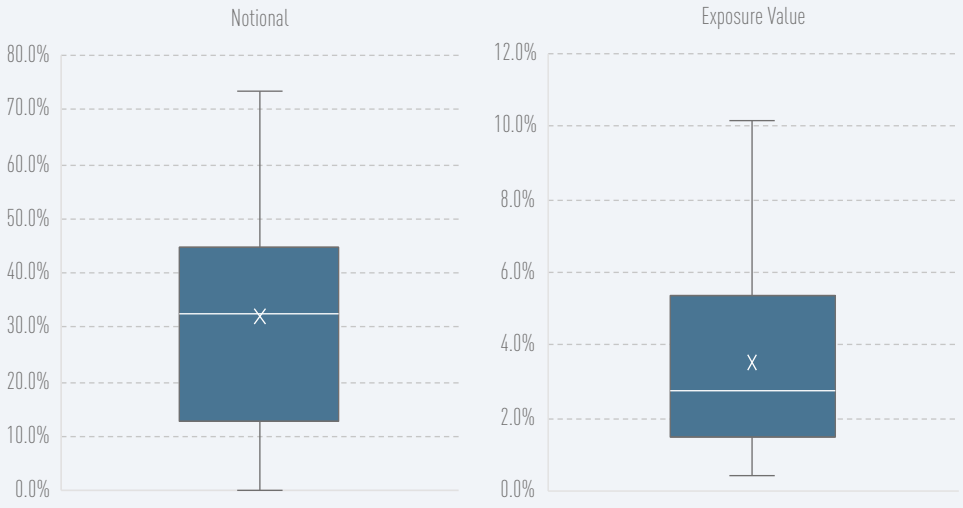
COREP data indicates that EU clearing members have significant exposures to both LCH Ltd and ICE Clear Europe – the two systemically important UK-based CCPs ([23]). Based on Q2 2021 supervisory reporting data, 28 clearing members out of 47 EU-based clearing members of LCH Ltd include an exposure to LCH Ltd as part of the reporting of their top 20 counterparts in terms of (trade) exposures. Similarly, seven clearing members out of 22 EU-based clearing members of ICE Clear Europe include an exposure to ICE Clear Europe as part of the same reporting. For these clearing members, exposures to those CCPs accounted on average for 35.7% of the total derivatives notional and 2.9% of the total derivatives exposure value included under the counterparty credit risk framework.

The share of exposures to those CCPs ranges between 0.1% and 73.6% of the total derivatives notional and between 0.4% and 10.2% of the total derivatives exposure value of those clearing members. Assuming those exposures were for the vast majority made of OTC derivatives exposures, the aggregated total exposure in terms of notional for this sample of EU clearing members accounts for 9.5% of the total amount of OTC derivatives cleared globally reported by the BIS in H2 2020.

Why have risks changed?

The concentration of exposures towards CCPs is inherent to central clearing which nets out economically redundant exposures, ensures collateralisation and mutualisation of risks across clearing members. The decision of the UK to leave the EU has, however, changed the overall assessment of the risk picture. It removed de facto the guarantee that EU law had provided in case of a recovery/resolution, as EU law had previously placed UK CCPs and UK regulatory authorities under the provisions of the EU recovery and resolution framework for CCPs. This has increased uncertainty as to the impact on EU clearing members of a CCP recovery or resolution. It has also increased dependence on the regulatory framework governing recovery / resolution in the UK.

Figure 15: Share of notional/exposure towards LCH Ltd and ICE Clear Europe (as % of total derivative CCR notional/exposure)
Source: Supervisory reporting data.
Interquartile range, median, minimum and the maximum; the cross is the simple average.



[23] The sample of banks forming the basis for this analysis is based on common supervisory reporting, but goes beyond the sample of banks used for other analysis throughout this report.

2. Asset side

2.1. Assets: volume and composition

EU/EEA banks' total assets grew by 2% between June 2020 and June 2021, and by 12% compared to pre-crisis levels (December 2019). The sharp increase in cash balances offset the slight decrease in loans and advances over the last year. Nonetheless, compared to pre-crisis levels, loans and advances are still 2% up. The overall decrease in NFC lending last year was driven mainly by large corporates. However, the outstanding volumes of SME loans and loans for house purchases to retail consumers continued to rise.

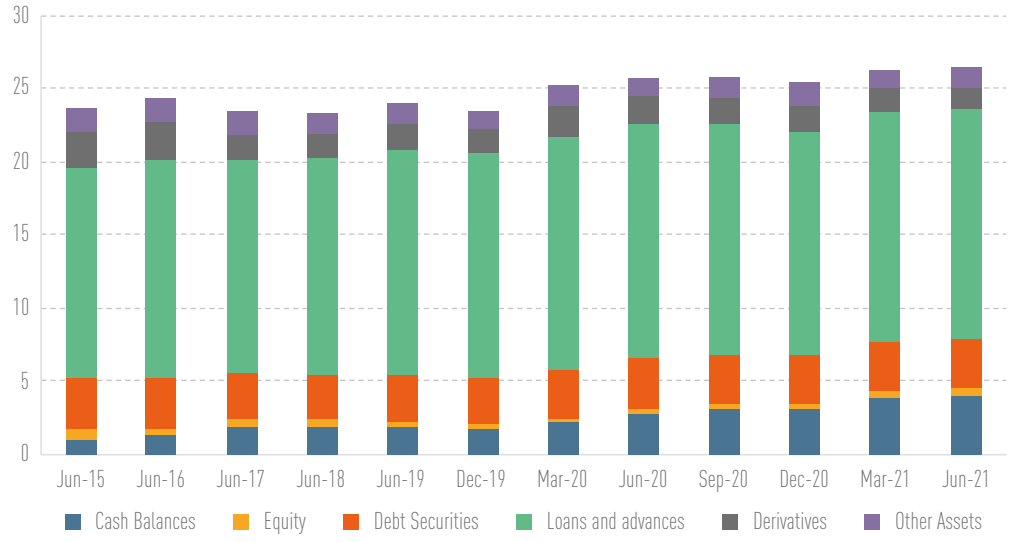
Cash balances are the main contributor to the increase in total assets

In June 2021, EU/EEA banks reported EUR 26.4 tn of total assets. Cash balances increased by around +42% year-on-year (YoY) and now exceed EUR 4 tn, i.e. more than double compared to pre-pandemic levels (EUR 1.9 tn in December 2019). The continued implementation of accommodative monetary policies introduced by various central banks and the incentives given to banks to use programmes such as the ECB's Targeted Longer-Term Refinancing Operations (TLTROs) have driven this rise. Loans and advances declined by approx. 1% (EUR 150 bn) between June 2020 and June 2021 but, compared to pre-pandemic levels, loans and advances are 2% higher. Derivatives show the largest relative decrease (by EUR 480 bn or -25%). Debt securities also declined on a YoY basis (-3%) despite the increase in the first half of this year (5%).

Loans and advances account for the largest share of total assets (60%), followed by cash balances (15%) and debt securities (13%). The asset composition has remained roughly stable over the past year with the exception of cash balances, which rose 4 p.p., compensating for a decline of 2 p.p. of loans and advances and derivatives (Figure 16). On the valuation of banks' financial assets, their largest share is measured at amortised cost (78% as of June 2021) ([24]).

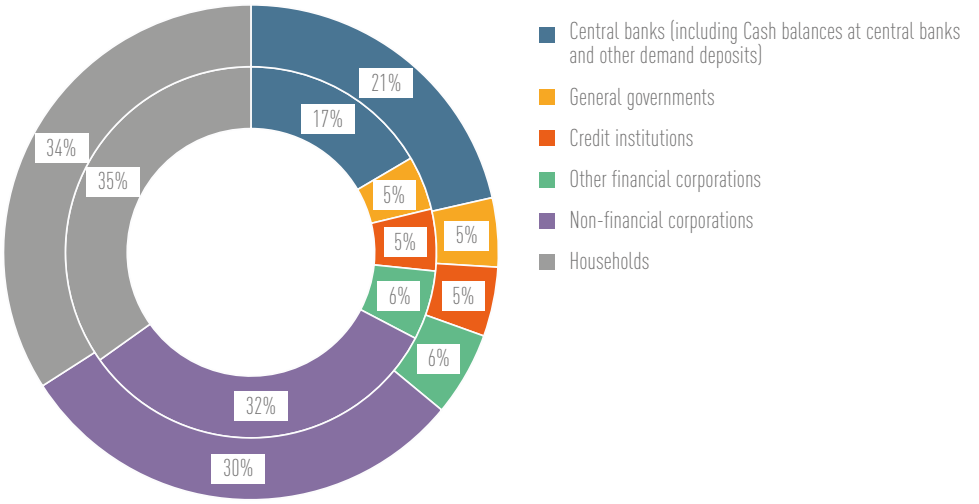
Within loans and advances, household and NFC exposures accounted for the largest share (34% and 30% respectively). Compared to last year, the share of loans towards NFCs decreased while at the same time central bank exposures increased by 4 p.p. (Figure 17).

Figure 16: Evolution of asset composition (EUR tn)
Source: Supervisory reporting data.



([24]) See in the EBA's Risk Dashboard (Statistical Annex, under the analysis of asset composition and volumes) more data on the measurement of financial assets.

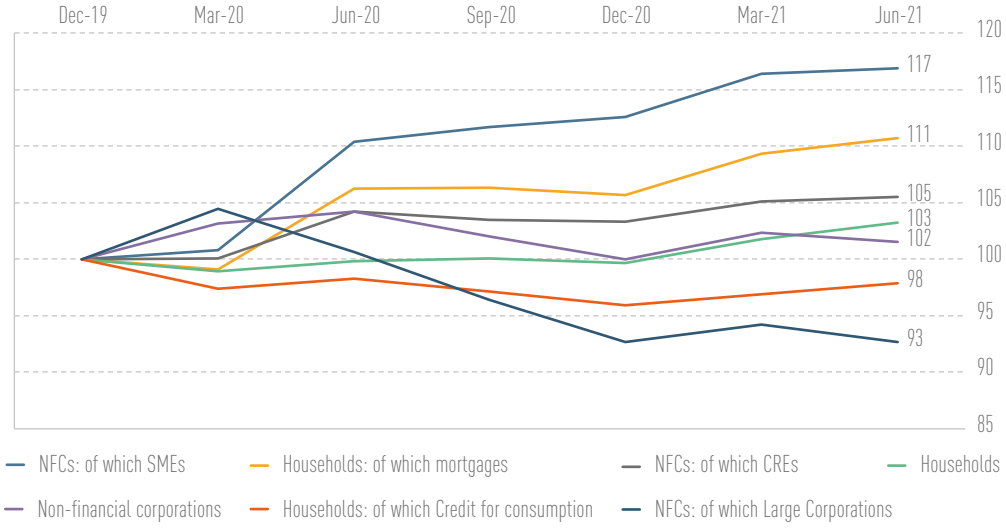
Figure 17: Distribution of loans and advances by segments as of June 2020 (inner circle) and June 2021 (outer circle)
Source: Supervisory reporting data.



Lending growth towards NFCs stalled despite the boost from PGS

Overall NFC lending decreased by 2.6% YoY to EUR 5.8 tn, driven by a considerable decrease in lending to large corporates (-8%). Loan demand has also been affected by a reduced corporate appetite for fixed investments amid ongoing macroeconomic uncertainty, by increasing access of large corporates to capital markets, and by repayments of credit lines drawn during the outbreak of the pandemic in Europe (see Chapter 1) ([25]). Loans towards SMEs continued their upward trend observed in 2020, rising by 6% between June 2020 and June 2021 to EUR 2.4 tn. The increase has been largely driven by PGS, with more than 60% of the EUR 377 bn loans subject to PGS granted to SMEs. Commercial Real Estate (CREs) lending slightly improved (up by 1%) despite the impact of the pandemic on this sector (Figure 18).

Figure 18: Growth in loans and advances by segment, December 2019 to June 2021 (December 2019=100)
Source: Supervisory reporting data.

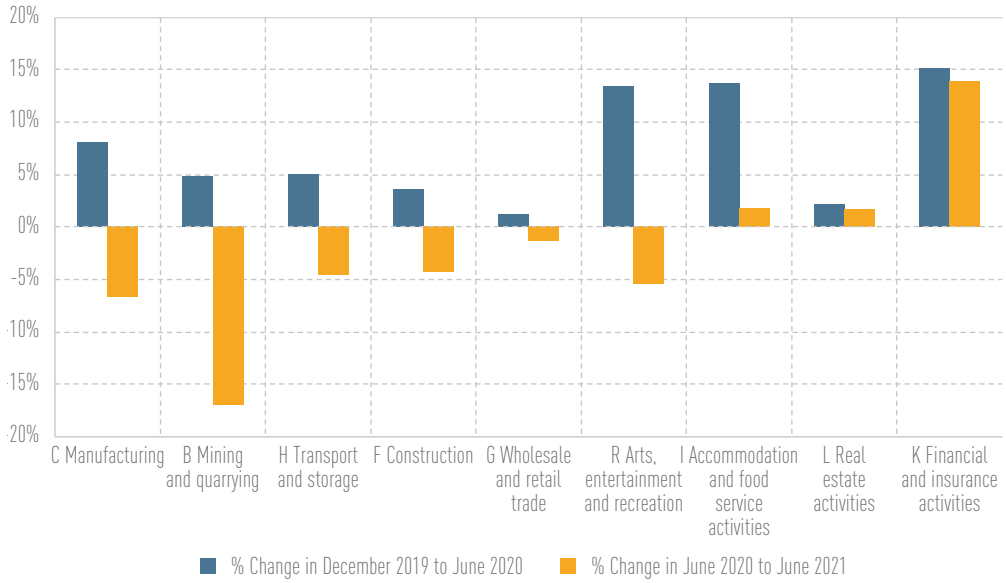


([25]) For the euro area, the ECB bank lending survey published on 20 April 2021 for instance pointed towards a declining demand for NFC loans in Q1 2021, mainly due to lower demand for financing of NFCs' fixed investments.

Within NFC lending, there were diverging trends in loan volumes for different sectors. Manufacturing (-7% YoY), other services (-26% YoY), transport and storage (-5% YoY), mining (-17% YoY) and construction (-4% YoY) registered substantial declines ([26]). Most of them were strongly affected by the containment measures applied in the first phase of the pandemic, but could resume their activity afterwards. Thus, they presumably had to make extensive use of credit lines to support their liquidity or for precautionary purposes during the first half of last year, but have thereafter repaid them as the situation returned to normal. For example, outstanding loans towards manufacturing, transport and storage and construction sectors are roughly stable when compared to December 2019 data (Figure 19).

Lending to sectors in which the pandemic has had more lasting effects has remained broadly stable. Sectors such as accommodation and food services, or arts and entertainment only show small changes in outstanding loan volumes compared to last year, yet compared to pre-crisis levels, they report a substantial increase. Unlike the sectors mentioned above, they tend to be still widely affected by the remaining social distancing restrictions. Against this backdrop, firms in these sectors have also made extensive use of moratoria on loan repayment schemes as well as PGS loans.

Figure 19: Growth in loans and advances for selected sectors
Source: Supervisory reporting data.



Household lending increased YoY

Household lending showed solid growth YoY (3% to EUR 6.6 tn) concentrated in the first half of 2021, after it had remained fairly flat in 2020 (Figure 18). The growth in this segment was driven by mortgages (4% YoY), while consumer lending declined slightly (-0.4% YoY), perhaps driven by general low consumption as households reduced spending during lockdown periods.

Residential and commercial real estate exposures a potential concern

Mortgage lending was the main driver of the increase in loans to households. Low interest rates, accumulated household liquidity due to reduced spending possibilities during the pandemic and fiscal expansion are major contributors to the increase observed in this segment (see Chapter 1). Additional factors such as consumer confidence on housing market prospects, the desire for larger dwellings – amidst increased time spent at home during the pandemic – or even a lack of alternative investment choices (i.e. low deposit rates or high-risk premia for other asset classes) have presumably also boosted the demand for mortgage loans.

Central and Eastern European (CEE) and Baltic banks reported particularly high growth towards mortgage lending. A few of them reported growth rates exceeding 10% on a year-on-year basis. These were fol-

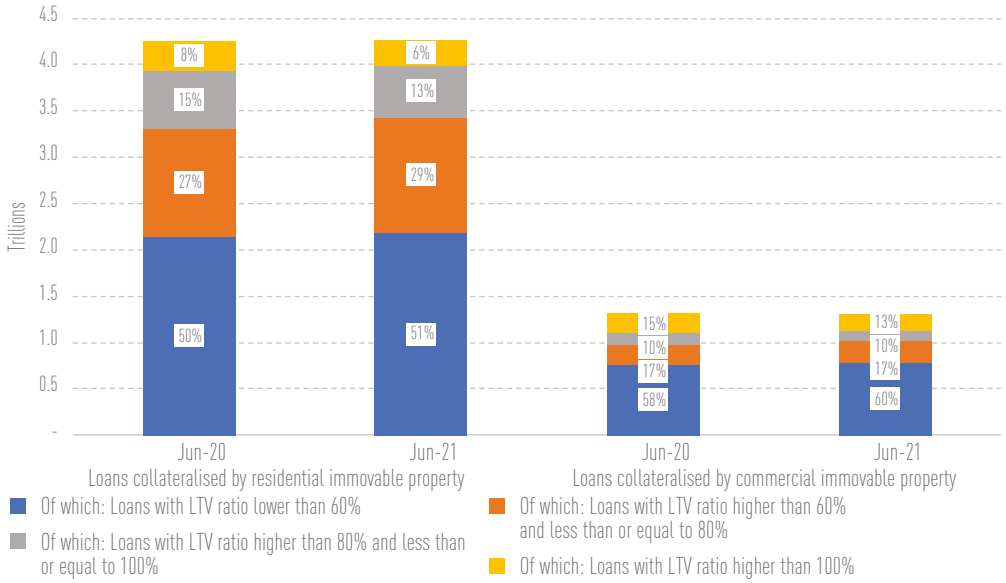
[26] Please see also the EBA's EU-wide pilot exercise on climate risk which provides an analysis of climate risks by sector.

lowed by Nordic banks which have reported growth rates of around 5%. Favourable market conditions coupled with high demand and abundant supply of lending in some countries may signal overheated real estate markets or even the creation of real estate price bubbles (see also Chapter 1).

Commercial real estate may pose even more challenges for the banks, as they remain vulnerable to structural changes in the post-pandemic era. While the overall exposures of EU banks towards CREs is around EUR 1.3 tn of loans and advances, certain parts of CRE exposures, such as shopping malls, offices or hotels, warrant increased monitoring due to the high impact of social distancing measures in these sectors. Yet the structural change in this segment provides some opportunities as well, stemming from increased demand for warehousing or data centres to support new ways of living, shopping and working.

The loan-to-value (LTV) ratios for both residential real estate and CREs have decreased over the last year. This could be a result of banks decreasing LTV ratios on newly originated loans by capping the LTV ratios in their internal risk management approval process. It might also be driven by banks rejecting riskier loans applications (higher LTV ratios) due to the highly uncertain economic environment ([27]). However, the decrease in average LTV ratios may be due to other factors, too. One possible driver may be the increases in real estate prices, at least for residential real estate. The decrease in NPL stock might also have helped to lower LTV values, as those exposures usually have higher LTV ratios. Volumes for both residential real estate and CREs have decreased considerably for the buckets with LTV > 80%, for instance (Figure 20).

Figure 20: Trend in residential and commercial real estate exposures by LTV ratio - June 2020 – June 2021
Source: Supervisory reporting data.



Exposures to non-EEA counterparties remain significant for the EU banking sector

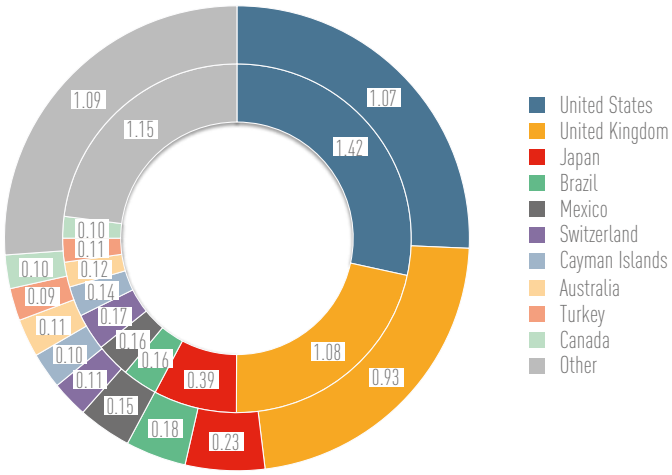
Around 20% of EU/EEA banks loans and advances and debt securities are towards non-EEA domiciled counterparties. They stood at more than EUR 4.2 tn as of June 2021, marking a 17% YoY decrease (EUR 5 tn in June 2020). Part of the reduction in foreign exposures may be explained by the appreciation of the euro against foreign currencies.

The decrease in these exposures was led by a substantial reduction in the exposures to US counterparties (decrease of around EUR 0.35 tn, or -25%), for which EU banks reported more than EUR 1 tn of exposures. Exposures towards UK counterparties were 14% lower compared to the previous year (EUR 0.9 tn in June 2021). With the exception of US and UK exposures, EU banks did not report an exposure exceeding EUR 0.25 tn to any other single country (Figure 21) ([28]).

([27]) Please also see EBA Guidelines on loan origination and monitoring.

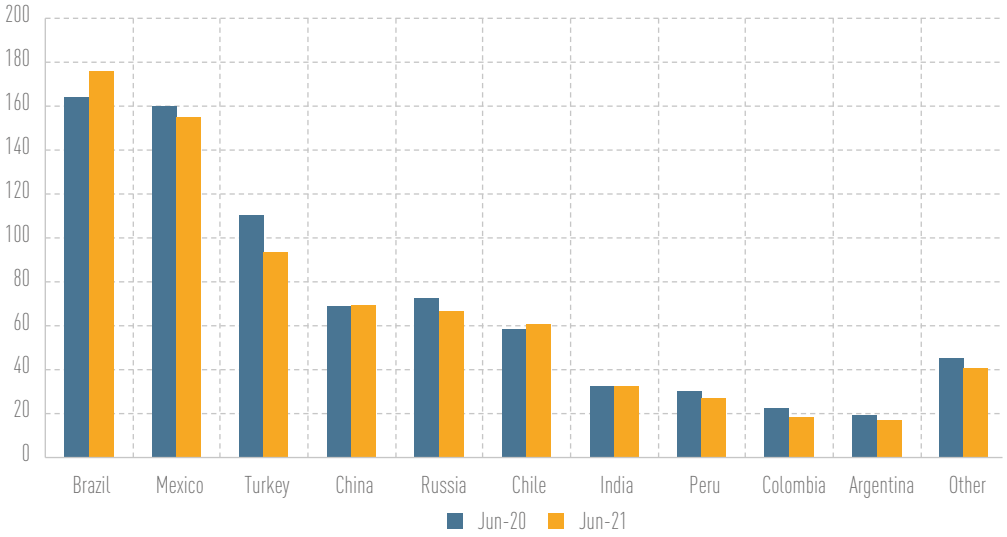
([28]) These exposures are also affected by exchange rate movements.

Figure 21: Exposures to non-EEA counterparties by country of domicile - June 2020 inner circle and June 2021 outer circle
Source: Supervisory reporting data.



Exposures of EU/EEA banks to EME have decreased by 3% to almost EUR 0.75 tn, EUR 30 bn below June 2020 levels [29]. The most important counterparties are located in Brazil, Mexico, Turkey and China. More than 70% of these exposures are reported by Spanish (58%) and French (17%) banks. Although these exposures provide a diversification of income, they also pose some non-negligible risks. For instance, the turmoil in the Chinese real estate market or the slow progress in vaccination rates in some EMEs may delay their economic recovery and expose banks to potential losses (Figure 22, see on EME-related risks, Chapter 1).

Figure 22: Trend of total exposures of EU banks to Emerging Economies by country – June 2020 to June 2021 (EUR bn)
Source: Supervisory reporting data.

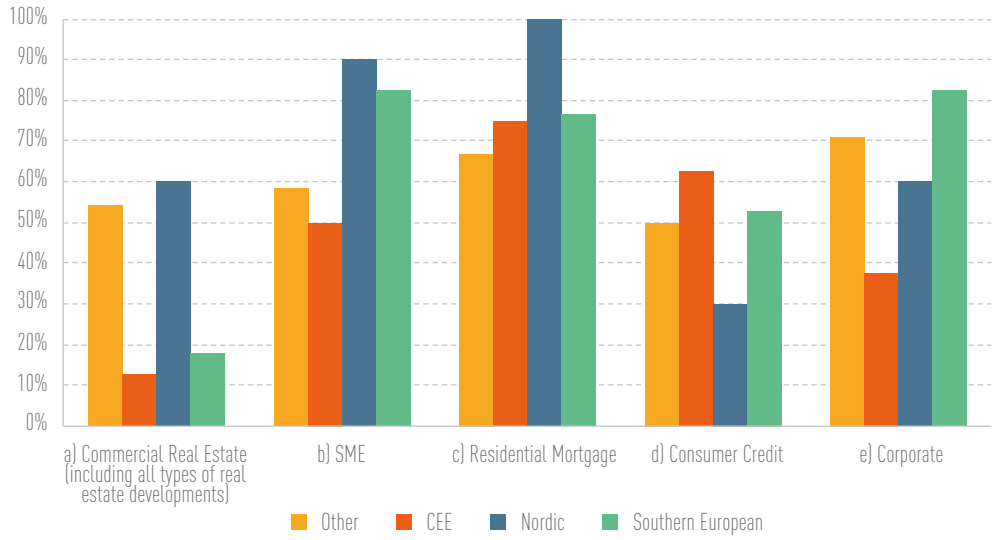


[29] EMEs include the following countries in this analysis: Argentina, Bangladesh, Brazil, Chile, China, Colombia, India, Indonesia, Malaysia, Mexico, Pakistan, Peru, Philippines, Russia, South Africa, Thailand, Turkey, Ukraine and Venezuela.

Looking forward, residential mortgages are a key priority for banks to expand their loan books

According to the RAQ, more than 75% of the banks suggested that they target increasing loan volumes towards residential real estate (50% in spring 2020). Furthermore, compared to previous surveys, banks are more confident about extending credit towards other major loan segments, such as SMEs. However, the portfolio focus varies by region. For example, banks in Nordic countries are keener to increase SME and residential mortgage lending, while banks in Southern Europe focus more on SME and corporate lending. Lastly, banks in CEE countries prioritise the residential real estate and consumer sectors. For the "other" region (which includes the remainder of the countries), banks have a more balanced approach in their plans to increase volumes for the next 12 months (Figure 23).

Figure 23: Portfolios that banks plan to increase in volume during the next 12 months by region of the bank ([30])
Source: RAQ for banks

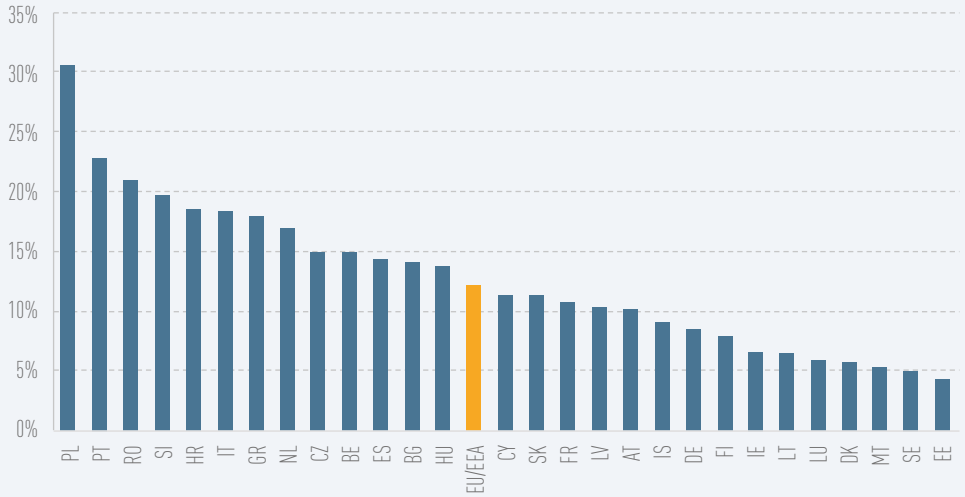


([30]) Central and Eastern European includes banks from Bulgaria, Hungary, Poland, and Romania; Nordic includes banks from Denmark, Estonia, Finland, Iceland, Norway, and Sweden; Other includes banks from Austria, Belgium, Germany, France, Ireland, Luxembourg, and Netherlands; and Southern European includes banks from Cyprus, Spain, Greece, Italy, Malta and Portugal.

Box 3: Sovereign trends in the EU/EEA banking sector as of June 2021

Interlinkages between banks and sovereigns remain above pre-pandemic levels, despite the reduction observed over the past twelve months. In June 2021, EU/EEA's banks total sovereign exposures stood at EUR 3.3 tn, below the levels of June 2020 (EUR 3.4 tn) but still above the levels observed in December 2019 (EUR 3.1 tn). In the first half of 2020, amidst increasing market turmoil, banks increased their sovereign holdings sharply (+10% compared to December 2019) to strengthen their portfolios of safe assets. In the second half of that year, once market volatility receded, sovereign exposures fell by 0.30%. The downward evolution continued during the first half of 2021, in which sovereign exposures declined by 1.7%.

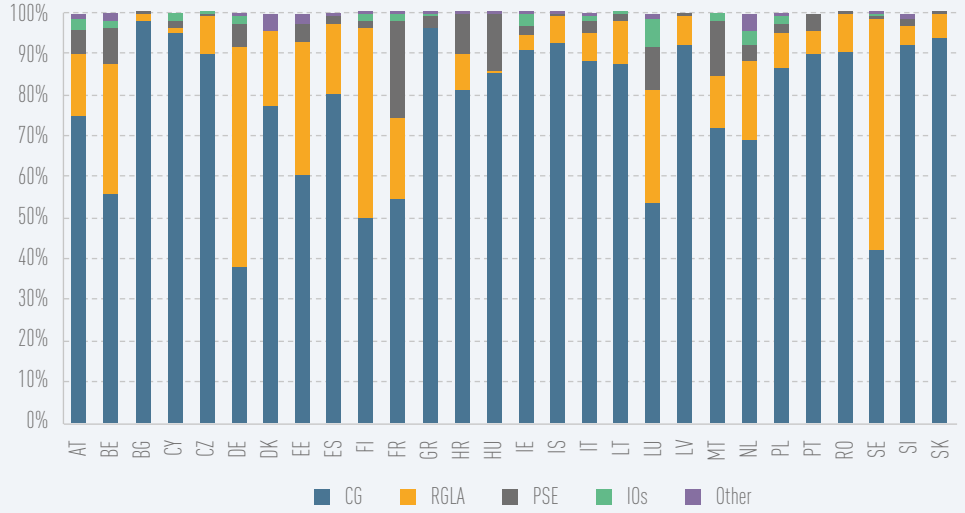
Figure 24: Sovereign exposures as a percentage of total assets by country – June 2021
Source: Supervisory reporting data.



In the first half of 2021, banks in Italy, Spain and France reported the largest increases in sovereign exposures in absolute values compared to December 2019 (EUR 97 bn, EUR 83 bn, and EUR 39 bn, respectively). In relative terms, banks in Hungary, Latvia and Poland experienced the highest growth rates. On the opposite side, sovereign exposures fell the most in Germany (EUR 30 bn), Belgium (EUR 29 bn), and Czech Republic (EUR 16 bn).

Similar to 2020, in June 2021, the largest share of sovereign exposures was towards central governments (CG) (68%), followed by regional governments and local administrations (RGLA) (18%), public sector entities (PSE) (8%) and international organisations (IO) (4%) and other (2%) (Figure 25).

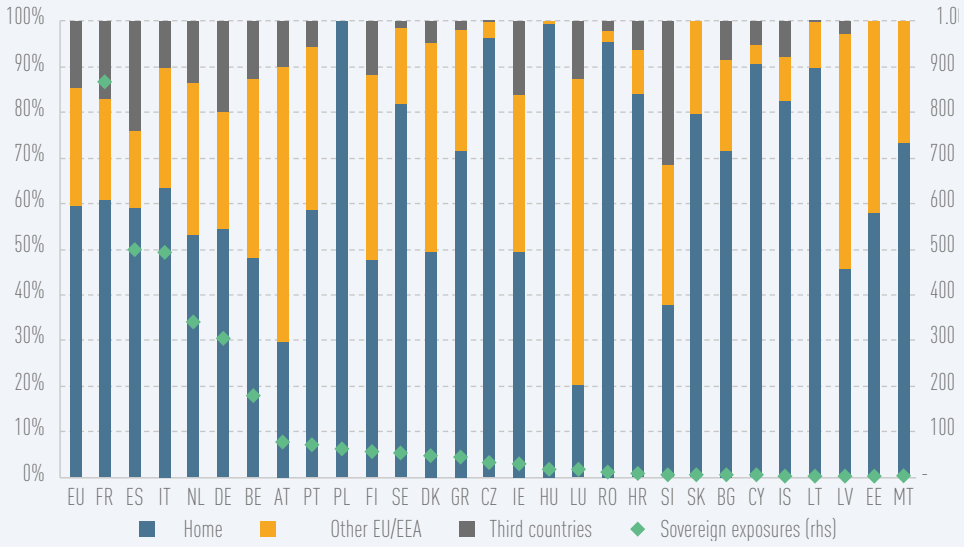
Figure 25: Sovereign exposures, counterparty distribution (%) — June 2021
Sources: Supervisory reporting data. CG: Central Governments, RGLA: Regional Governments and Local Authorities, PSE: Public Sector Entities, IOs (International Organisations) and other.



In June 2021, 59% of EU/EEA banks' sovereign exposures was to their respective home countries (58% as of December 2019) (Figure 26). The exposures towards home sovereign accounts for 122% of Tier 1 capital as of June 2021 (127% as of June 2020). Close to 85% of banks' total sovereign exposures was to an EU/EEA country, broadly the same percentage as in June 2020. 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 (see on the latter Chapter 2.2).

Figure 26: Sovereign exposures (EUR bn) and country distribution by domicile (%) — June 2021

Source: Supervisory reporting data.



Sovereign exposures reached close to 12% of banks' total assets. Banks in euro area countries tend to have a higher ratio of sovereign exposures to total assets than their peers in non-euro area countries. Although the weight of sovereign exposures over total assets is equally distributed across the sample, with nearly the same number of banks below and above the average, less than 10% of the banks of the sample have sovereign exposures that are above 30% of their total assets.

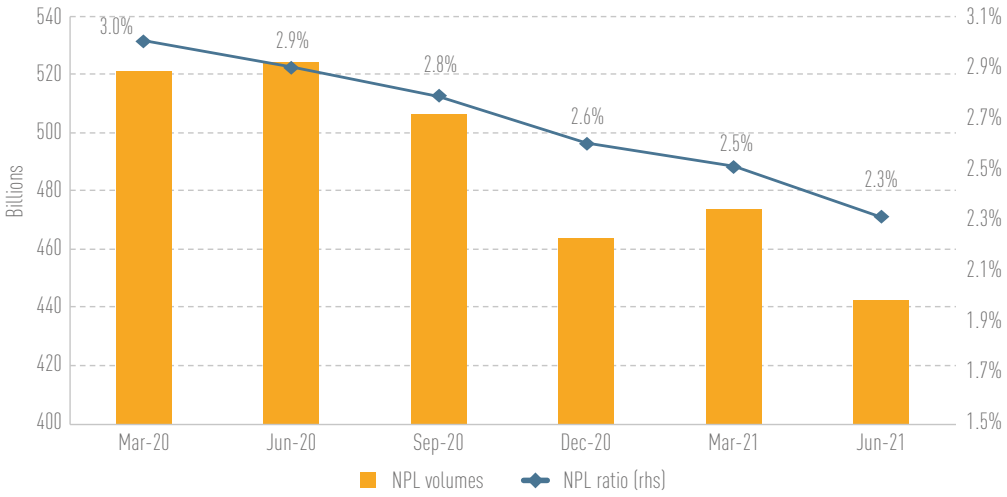
2.2. Asset quality trends

Asset quality remained benign throughout the course of the pandemic despite initial concerns. The unprecedented fiscal, monetary and regulatory support that was provided in Europe and across the world has contributed to avoiding a substantial deterioration in the asset quality of EU/EEA banks (see Chapter 1). Yet some vulnerabilities are already evident in banks' balance sheets, as some countries and in particular some economic sectors have been severely affected by the pandemic.

NPL decrease strongly supported by government-backed securitisation schemes

The NPL ratio maintained a downward trend during the past year, reaching 2.3% (2.9% in June 2020) which is the lowest ratio since data has been available. This is due to the decline in the volume of NPLs and the increase in loans and advances. The volume of NPLs decreased by around EUR 82 bn (-16%) YoY and stood at EUR 442 bn as of June 2021. This is around 40% of the peak volume reported in December 2014 (Figure 27).

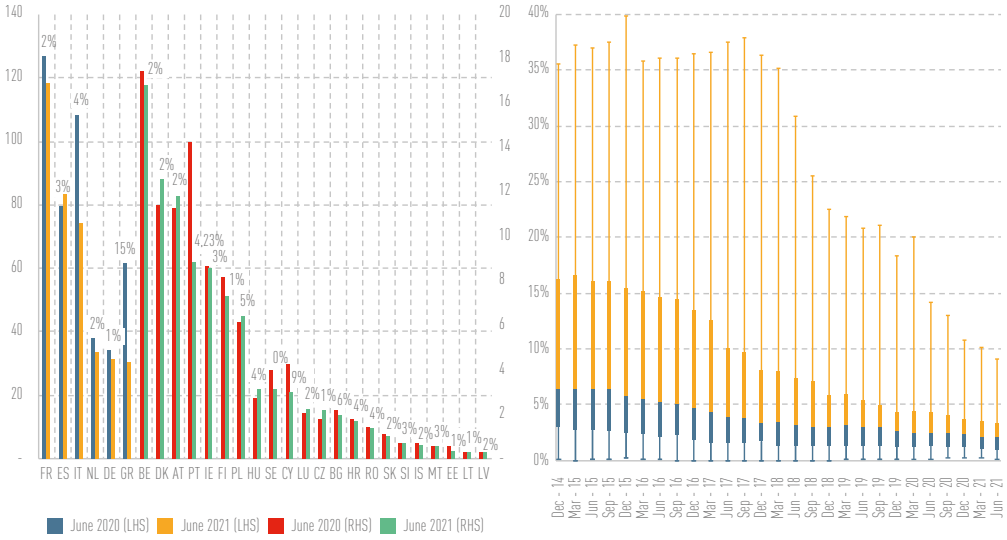
Figure 27: Trend of NPL volumes (EUR bn – left) and NPL ratio (% - right) – March 2020 to June 2021
Source: Supervisory reporting data.



One explanation for declining NPL volumes stems from NPL disposals and securitisations. For instance, banks in Southern European economies, which have elevated NPL ratios, successfully managed to de-risk their balance sheets through government-backed securitisation schemes such as the Garanzia Cartolarizzazione Sofferenze (GACS) in Italy or the Hercules programme in Greece. Banks in these two countries have reported a decrease of more than EUR 60 bn of NPLs YoY. Portuguese and French banks have also contributed substantially to the reduction. However, reduction in NPL volumes was not universal across European banks. For example, Spanish and Danish banks reported a YoY total increase in NPLs of close to EUR 4 bn (5% increase) and EUR 1 bn (10% increase) respectively.

Despite the significant reduction in NPL volumes of Greek banks, their average NPL ratio still stands at 14.8% (30.3% in June 2020). Cypriot banks reported the second highest NPL ratio (9.1%), yet it fell by more than 6 p.p. compared to the previous year. Italian banks also registered an important reduction in their average NPL ratio which stood at 3.7% (6.1% in June 2020). As a result of these developments, the dispersion of the NPL ratio by country and bank has significantly narrowed. The NPL ratio of 95th percentile is now less than 10%, whereas a year earlier was close to 15% (Figure 28).

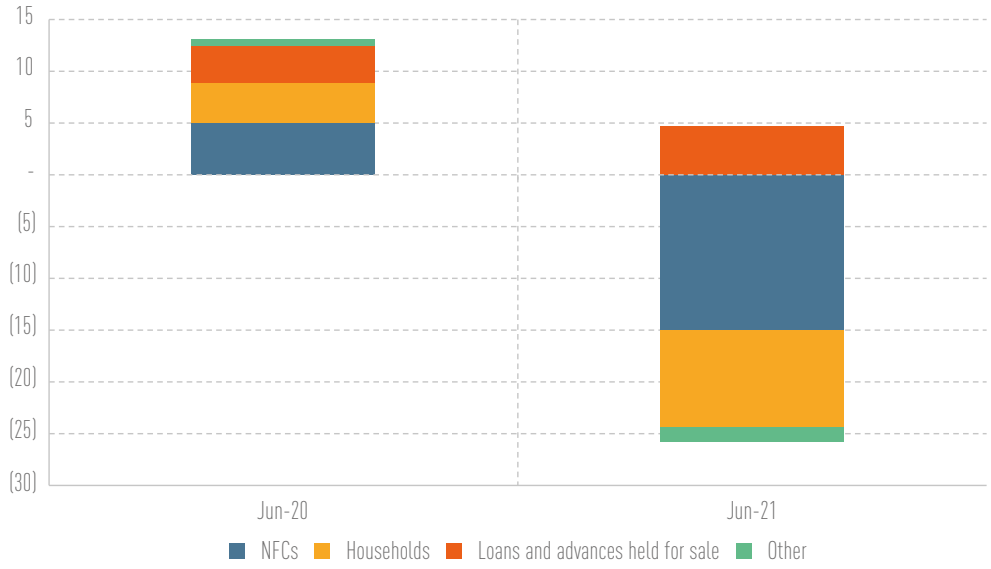
Figure 28: Trend in NPL volumes by country (EUR bn, left) and dispersion of NPL ratios (5th and 95th pct, interquartile range and median) (right) ([31])
Source: Supervisory reporting data.



([31]) Besides common NPL reduction measures and NPL inflows, also changes in the sample of banks can affect the trends in NPL volumes. This applies for Portugal, for which the sample of banks significantly changed between 2020 and 2021.

During the first half of 2021, EU banks reported NPL inflows of EUR 110 bn. This is around 30% lower compared to the first half of last year (EUR 151 bn). Yet the disposals and securitisations of NPLs allowed EU/EEA banks to report a net NPL outflow of EUR 21 bn in the first half this year, which compares to a net NPL inflow of EUR 13 bn during the same period last year. All segments apart from credit for consumption reported a net NPL outflow in June 2021 (Figure 29).

Figure 29: NPL cumulative net inflows by segment for the first two quarters of 2020 (December 2019 to June 2020) and 2021 (December 2020 to June 2021) (both EUR bn)
Source: Supervisory reporting data.

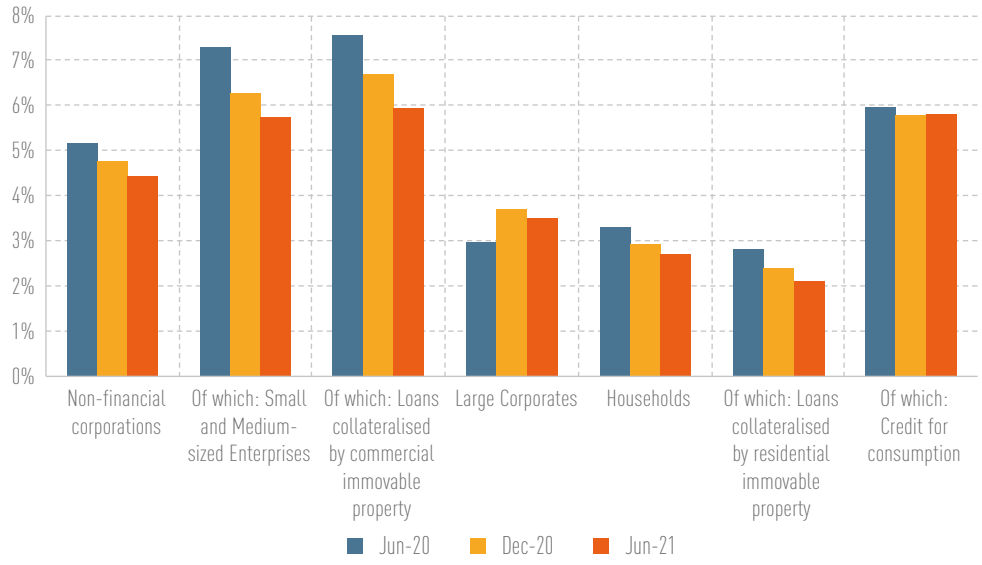


NPLs decreased across nearly all segments, yet vulnerabilities remain

NPL volumes and ratios have overall declined for both NFCs and households. In comparison to June last year, the NPL ratio of NFC loans under amortised cost was down by around 70 bps (4.4% in June 2021), reflecting a decrease of EUR 47 bn in NPLs (-16%). NPLs to households under amortised cost decreased by EUR 33 bn (-16%) and reported a decrease of around 60 bps (2.7% in June 2021). The overall trend in NPL ratios was also reflected in the two of the riskiest segments, which are SME and CRE exposures, for which their NPL ratios were down by 1.5 p.p. (5.7% in June 2021) and 1.6 p.p. (5.9% in June 2021) respectively.

However, there was also a segment with a rising NPL ratio recently, but this was actually due to a denominator effect: for large corporate exposures, it rose by around 50 bps YoY (3.5% in June 2021). This happened despite a decline in NPLs, as the latter was offset by the decrease in outstanding loans. In the household segment, mortgage lending still has the lowest NPL ratio (2.1% in June 2021 versus 2.8% in June 2020) (Figure 30). Amid uncertainty related to the spread of the pandemic and economic recovery, it needs to be seen if the positive trend can be upheld, or if the declining trend is more persistent (see also Box 6 on banks' expectations for future asset quality trends).

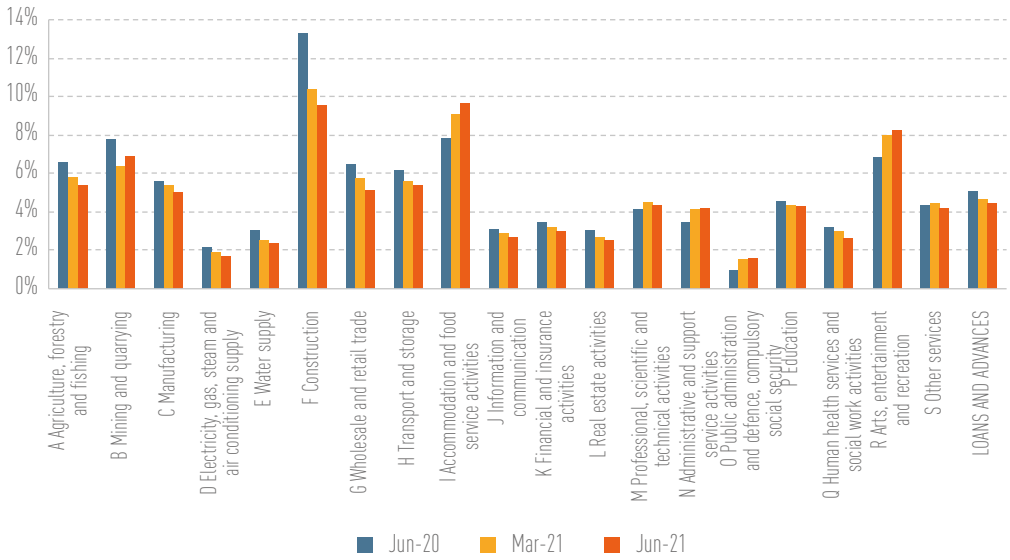
Figure 30: EU NPL ratios by segment (loans at amortised cost) [32]
Source: Supervisory reporting data.



The impact of the pandemic was heterogeneous across economic sectors

Hospitality and leisure-related activities are the sectors most affected by the pandemic. They suffered from particularly severe contractions in operating revenues since the outbreak of the pandemic. Despite the public support, their reported NPL ratios have edged up materially. The volume of NPLs in the accommodation and food service sector increased by 25%, while that of the arts, entertainment and recreation sector was up by 14% compared to June 2020. The NPL ratios of these two sectors accordingly registered the largest increase (1.8 p.p. to 9.7% and 1.4 p.p. to 8.2% respectively) (Figure 31).

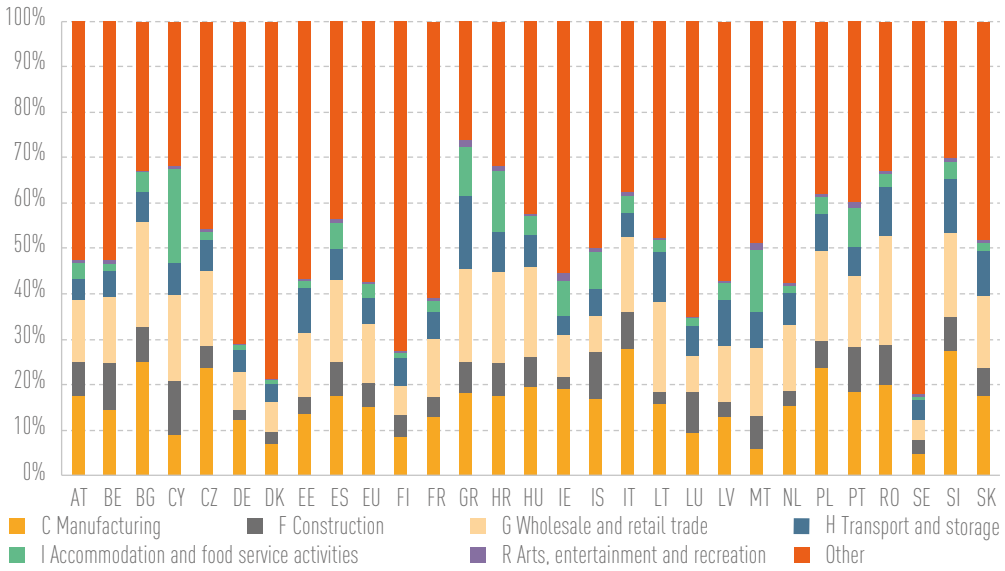
Figure 31: Trend in NPL ratios by sector, June 2020 to June 2021
Source: Supervisory reporting data.



[32] The volume of large corporate NPLs is calculated as total corporates NPLs - SME NPLs. More than 98% of NFC and household NPLs were accounted for at amortised cost.

Dispersion in the NPL ratio of hospitality and entertainment-related sectors across countries is also significant with a few countries reporting NPL ratios exceeding 10% in these sectors. Yet the magnitude of the exposures to these highly impacted sectors also differs across countries. Banks in Cyprus, Greece, Croatia, and Malta report more than 10% of their NFC loans and advances towards accommodation and food service activities. Exposures towards arts, entertainment and recreation are very low at EU/EEA level. Only banks in Greece, Malta, and Portugal report more than 1% of their total NFC exposures towards this sector (Figure 32).

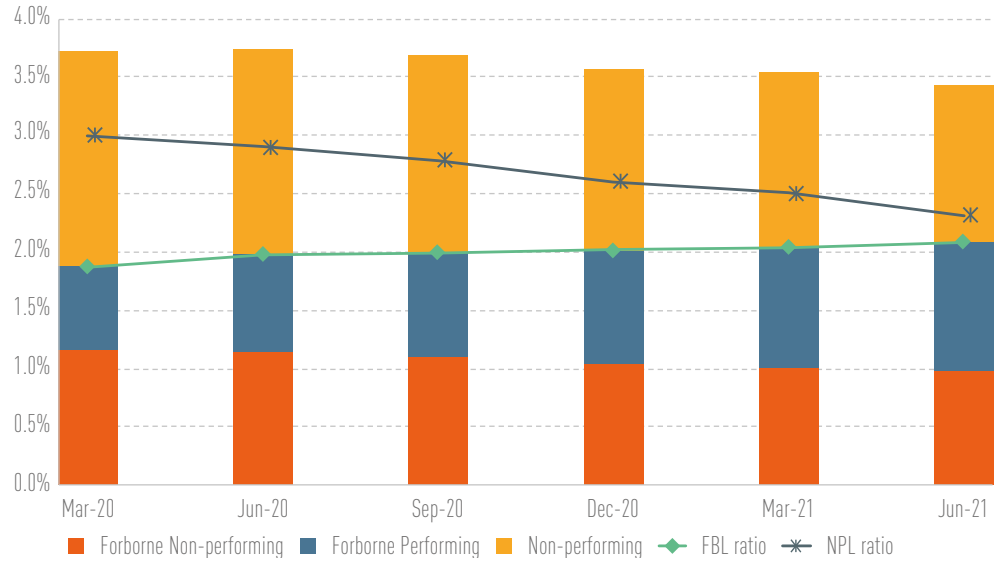
Figure 32: Distribution of NFC exposures for selected sectors by country
Source: Supervisory reporting data.



The increase in forborne loans remains a concern

Forborne loans (FBLs) increased by 12% compared to June 2020. They stood at EUR 400 bn, with the bulk of the increase taking place in the first quarter of this year (EUR 26 bn). The increase was driven by performing FBLs, which increased by around 40% to EUR 213 bn in June 2021, whereas non-performing FBLs decreased by around EUR 20 bn to EUR 186 bn. FBLs might have risen, as through forbearance measures, banks presumably addressed the financial constraints of business and households severely affected by the pandemic. In June 2021, the FBL ratio stood at 2.1%, up from 2.0% the previous year (Figure 33).

Figure 33: Composite asset quality index of non-performing and forborne loans
Source: Supervisory reporting data.



The EBA guidelines on moratoria (first issued in April 2020 and extended afterwards) provided some relief and prevented an even further increase of FBLs. The guidelines have however been phased out as of 31 March 2021. As a result, the usual definition of forbearance applies since then, without exception to cater for COVID-19 effects. Due to this, moratoria (which meet the definition provided in the guidelines) should no more be automatically excluded from the forbearance classification ([33]).

The change in FBLs during the past year varied significantly among countries. Two countries reported more than 100% increase (Hungary and Iceland). A few other countries reported a considerable decrease in the volume of FBLs (for example the Czech Republic and Greece reported on average a more than 20% decrease).

The increase in FBLs may indicate that banks actively engage with their clients in tackling potential difficulties before they materialise. To understand the effectiveness of the forbearance measures applied, FBLs need to be closely monitored. Banks should acknowledge promptly non-viable clients and avoid using forbearance measures as a way of delaying recognition of credit deterioration. Supporting non-viable or "zombie" companies impacts in the longer term not only bank's performance through the locked-in allocated capital towards these firms, but also the overall economic rebound, as this capital is not channelled towards new viable, productive, and sustainable investments.

[33] See the EBA's Guidelines on legislative and non-legislative moratoria on loan repayments applied in the light of the COVID-19 crisis, EBA/GL/2020/02 (2 April 2020), amended EBA/GL/2020/08 (25 June 2020) and EBA/GL/2020/15 (2 December 2020).

Box 4: Asset quality of exposures under support measures deteriorates

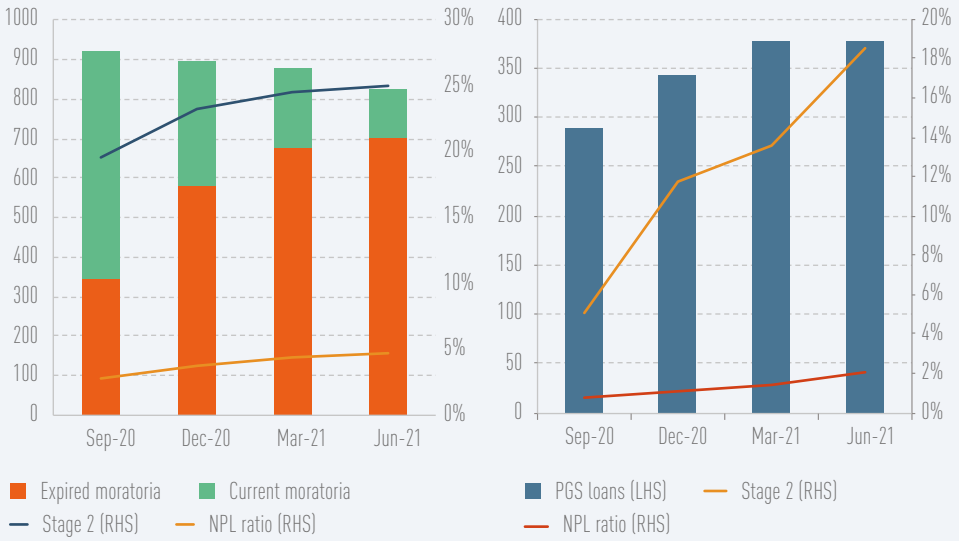
Support measures introduced at the outbreak of the pandemic have been helpful to prevent a credit crunch and to maintain the flow of lending to the real economy. Moratoria on loan repayments, which had been widely introduced across the EU/EEA, provided borrowers with the necessary breathing space to tackle liquidity issues that arose, such as from the suspension of their activities in the case of NFCs or from the loss of income in the case of households (see Chapter 1). Loans benefitting from so-called EBA-compliant moratoria (legislative and non-legislative) reached their maximum in September 2020 (EUR 936 bn). As of June 2021, only EUR 125 bn of loans were still under moratoria.

Loans subject to PGS were also significant, though concentrated in just a few countries. After several quarters of continuously rising, PGS loans stabilised after March 2021 and in June, they accounted for EUR 377 bn. This might indicate that PGS loans have reached their peak, as governments terminated these programmes or the available commitments of governments for such measures were consumed. It might also indicate that banks are again more willing and prepared to provide lending without guarantees.

Loans under support measures have deteriorated since their inception. The share of stage 2 loans that had benefited by moratoria is particularly high (25%). In addition, the NPL ratios for moratoria loans stand well above the average (around 4.7% vs an overall average of 2.3%). PGS loans show a similar deterioration. Around 18.5% of them are classified under stage 2, and their NPL ratio, albeit below the average (2%), has been increasing continuously (Figure 34).

The deterioration in credit quality for these loans is presumably explained by the fact that they were at least partially applied to borrowers particularly affected by the pandemic. They accordingly remain a source of potentially rising risks for EU banks and this needs to be closely monitored. This is especially true for those exposures that are still under moratoria and mostly concentrated in a few countries.

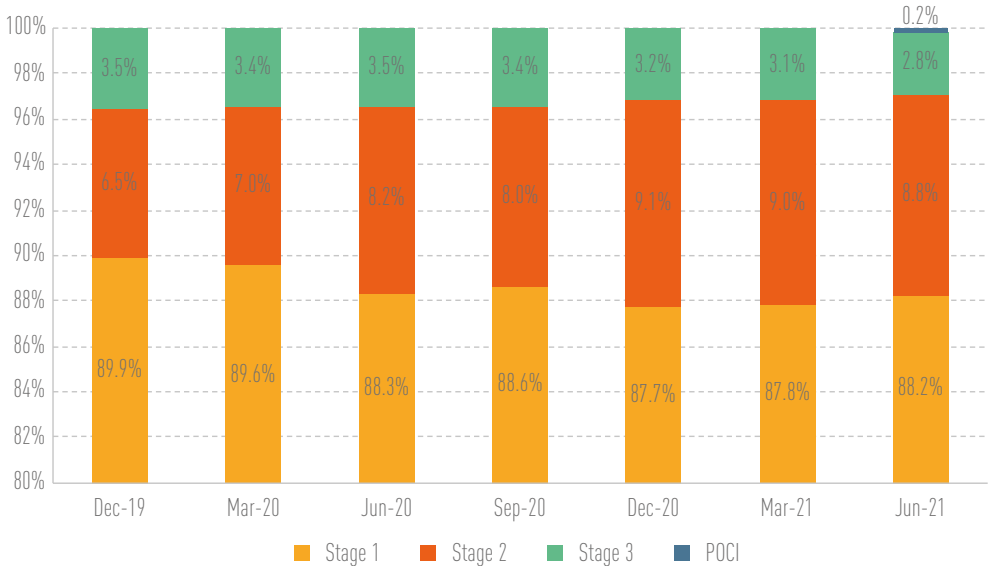
Figure 34: Volume of loans (EUR bn), stage 2 (%), NPL ratio (%) of loans granted moratoria (left) and subject to PGS (right)
Source: Supervisory reporting data.



IFRS 9 impairment stage allocation indicates a possible deterioration in credit quality

Compared to the beginning of the pandemic, banks have markedly increased the classification of loans in stage 2. It came with an equivalent decrease in the share of stage 1 loans. After a peak in December 2020, the share of stage 2 loans slightly reversed during the first half of 2021. In June 2021, EU banks classified 88.2% of their loans and advances recognised at amortised cost into stage 1, 8.8% into stage 2 and 2.8% into stage 3, while 0.2% were purchased or originated credit-impaired financial assets (POCI) (Figure 35) ([34]).

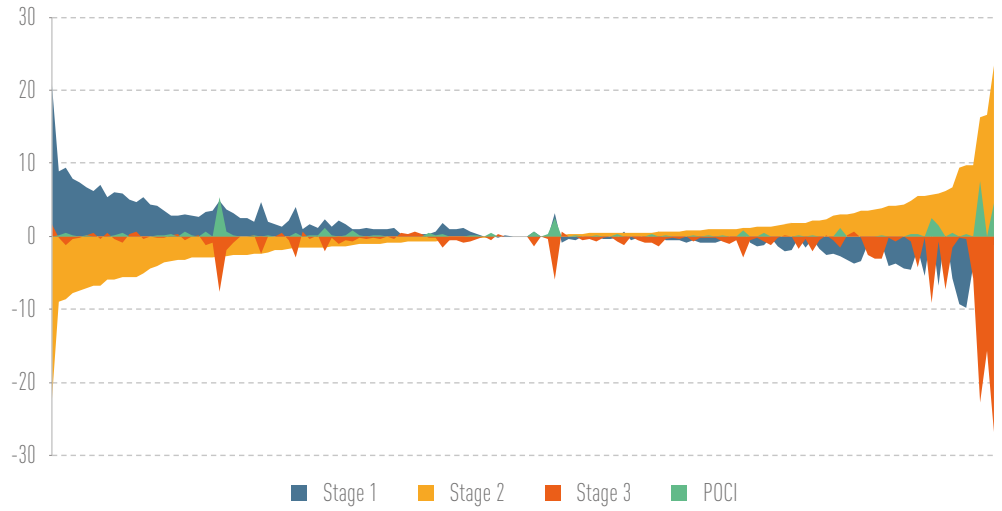
Figure 35: Evolution in stage allocation of EU banks of loans and advances at amortised cost over time
Source: Supervisory reporting data.



[34] POCI exposures were presumably reported in stage 3 during the previous reporting periods.

The stage allocation widely differs among banks and countries. Several banks reduced their stage 3 allocation in the period between June 2020 to June 2021. This was also driven by Southern European banks that engaged in NPL disposals through securitisation or outright sales of portfolios, as described above. There were also a few banks which reduced the allocation of stage 2 assets and increased at the same time the share of loans classified under stage 1. This was also due to the migration of assets back from stage 2 to stage 1, and due to new lending presumably classified under stage 1. The biggest increases in stage 1 against stage 2 allocation were reported by Nordic countries (Figure 36).

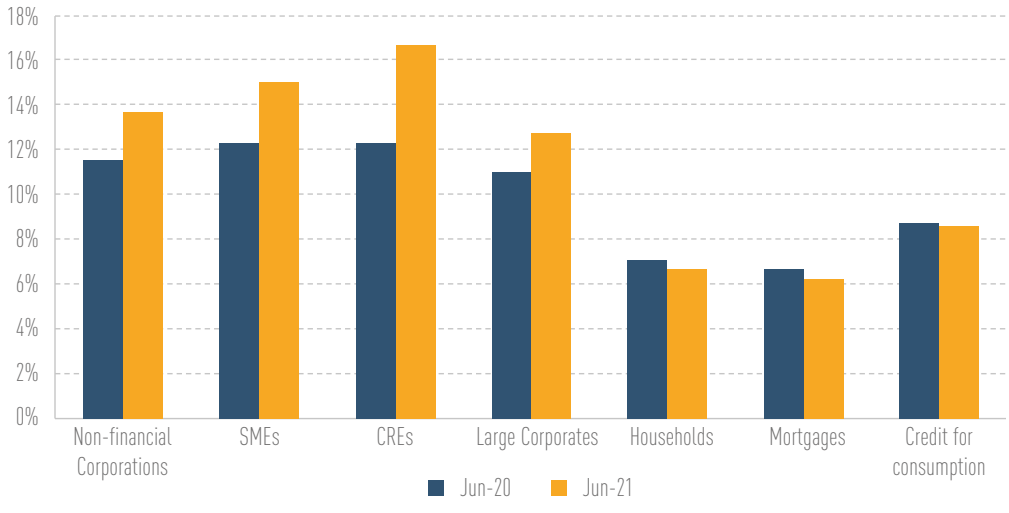
Figure 36: Changes in the allocation of loans by stages by bank (in p.p.), between June 2020 and June 2021
Source: Supervisory reporting data.



The increasing share of stage 2 NFC loans might still point towards a further asset quality deterioration

13.7% of NFC loans were classified under stage 2 (up from 11.5% in June 2020), with the highest share of stage 2 loans observed in CRE exposures (16.6% in June 2021 versus 12.3% in June 2020). In contrast, the allocation to stage 2 of household loans was lower compared to last year (6.7% in June 2021 versus 7.1% in June 2020) and remained below the average stage 2 allocation for all loans. Households might be better protected by support measures like furlough schemes. In addition, banks may be more effective in assessing and acknowledging possible credit deterioration for NFCs exposures, since external data sources as well as regular information on creditors' financial positions might allow for a quicker assessments of credit quality (Figure 37).

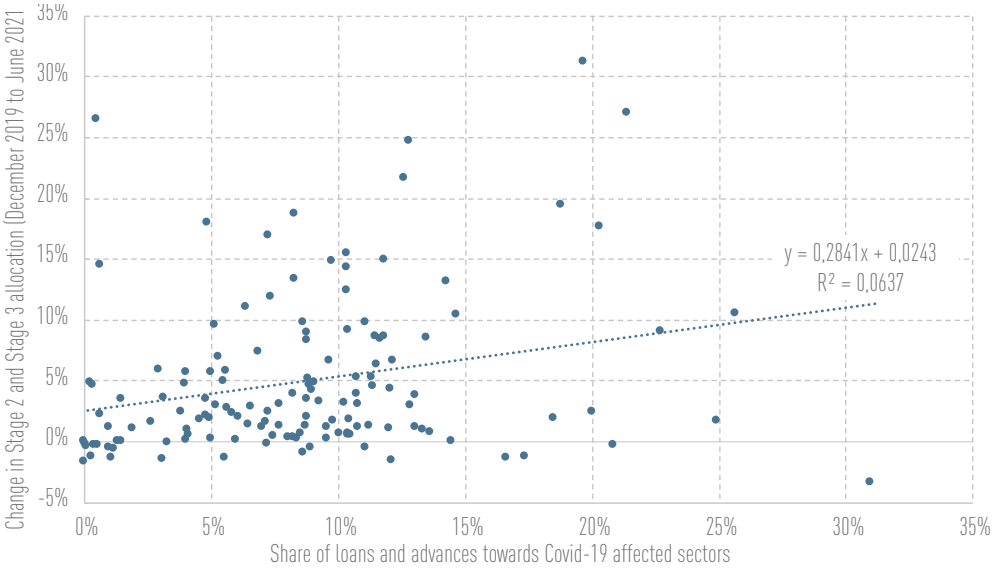
Figure 37: Stage 2 allocation of loans by segment (loans at amortised cost) [35]
Source: Supervisory reporting data.



[35] The volume of large corporate NPLs is calculated as total corporates NPLs - SME NPLs.

Notwithstanding a few exemptions, banks with a high share of loans towards mostly affected sectors (e.g. accommodation and food service activities, transport and storage as well as arts and entertainment and recreation sectors) report a higher share of stage 2 and 3 loans. The ratio between the two parameters holds in general terms, yet a number of banks with a high share of loans towards affected sectors have only marginally increased the allocation of loans in stage 2 and 3. However, there are also banks which saw significantly rising stage 2 and 3 ratios, even though they did not have material exposures to the most affected sectors (Figure 38).

Figure 38: Change in stage 2 and stage 3 allocation between December 2019 to June 2021 vs. share of loans and advances towards the sectors most affected by COVID-19 - June 2021
Source: Supervisory reporting data.



Box 5: Exposures towards EME show higher new default rates[36]

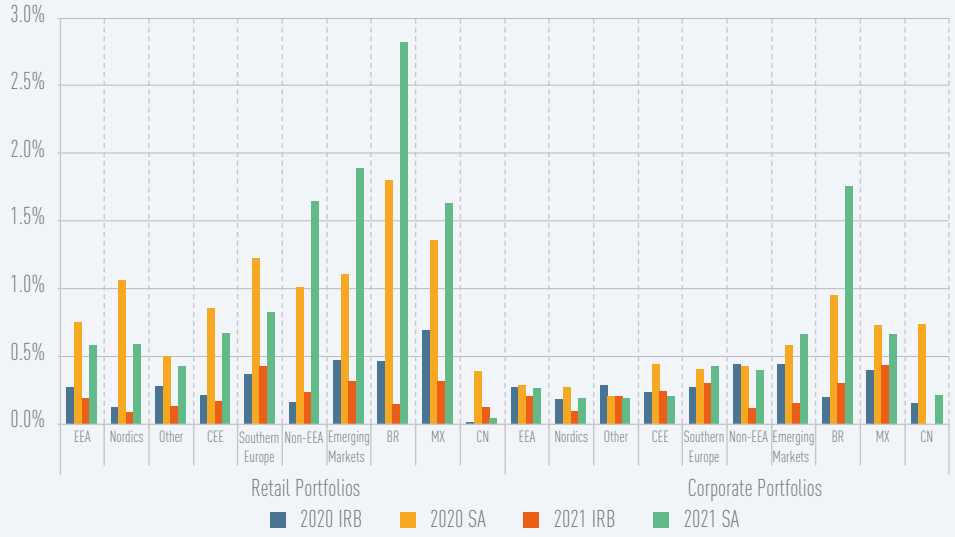
Although exposures to EME provide a source of income diversification for EU/EEA banks, they are also of increased risk. The percentage of defaults of exposures towards counterparties in EMEs is close to that of EU/EEA counterparties for corporate and retail exposures. However, the rate of new defaults is substantially higher for respective EME portfolios. Internal ratings-based (IRB) exposures are significantly higher compared to the standardised approach (SA) (more than 80% of the total exposures were under IRB approach) in this analysis. In addition, of the more than EUR 16 tn exposures considered in this analysis, around 55% were towards corporates.

The new default rate for the SA portfolio towards counterparties in EMEs was more than double that of EU/EEA exposures in June 2021. This was particularly pronounced in the retail portfolio. However, for the IRB approach, the new default rates for EME exposures were only slightly higher. Exposures towards counterparties domiciled in Brazil and Mexico reported one of the highest new default rates, reaching for instance 2.8% in retail SA portfolios for exposures towards counterparties in Brazil (0.6% for EEA and 1.9% for EME exposures). Within Europe, Southern countries reported the highest new default rates for both retail and corporate exposures, reaching, for example, 0.8% (SA retail portfolios) and 0.4% (IRB retail), and 0.4% (SA corporate portfolios) and 0.3% (IRB corporate) in June 2021. However, they are still only slightly higher than the average new default rates (Figure 39).

The slow roll-out of vaccinations in EMEs and uncertainties related to the economic recovery are key risks going forward for these exposures. This is similarly reflected in trends of new default rates over time. Whereas new default rates are slightly lower in the EU/EEA region compared to June 2020, they have edged slightly higher in EMEs, providing a potentially more concerning sign for the banks exposed to these markets.

[36] The new default rate is calculated using the observed new defaults for the period as a rate of the net non-defaulted original exposure by region or country.

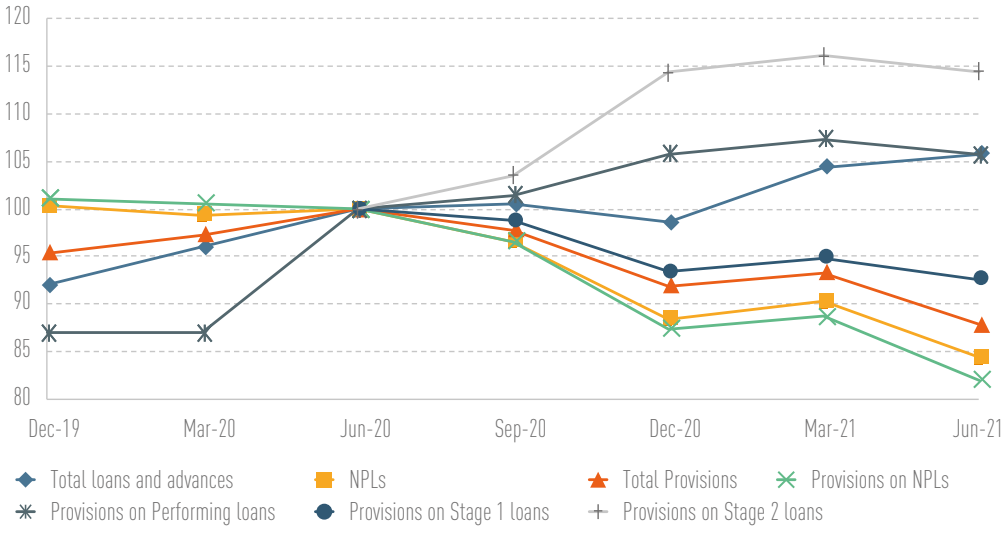
Figure 39: New default rates by country of counterparty and by portfolio over time
Source: Supervisory reporting data



Banks further accumulate provisions for performing exposures

In June 2021, the average coverage ratio of NPLs was 44.3%. It was down by 1.2 p.p. since June 2020, after a decrease in accumulated impairments and provisions for NPLs of around 18%. The coverage ratio by IFRS 9 stages stood at 0.2% for stage 1 loans (0.2% in June 2020 as well), 4.1% for stage 2 (3.9% in June 2020) and 46.6% for stage 3 (46.8% in June 2020). The increase in accumulated impairments and provisions for performing loans (6%), and especially for those loans classified in stage 2 (14%), moderated the decrease in total accumulated impairments and provisions (12%). EU/EEA banks have accumulated impairments and provisions equivalent to 0.43% of their total loan portfolio, the same as in June 2020 and materially higher than in December 2019 (0.37%). This might indicate that banks do not yet finally rule out a potential deterioration of asset quality (Figure 40).

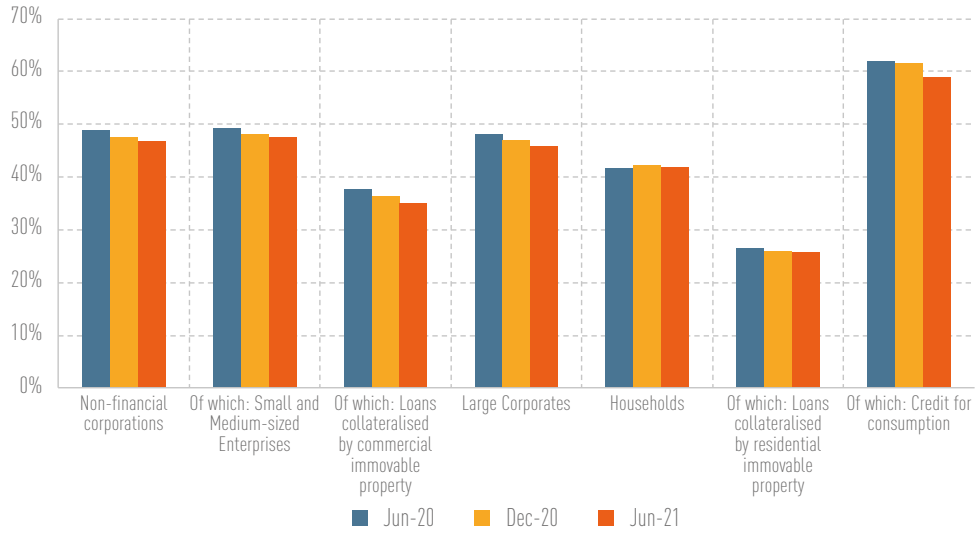
Figure 40: EU accumulated impairments and provisions evolution over time (June 2020 = 100) [37]
Source: Supervisory reporting data.



[37] Supervisory does not provide for all data since December 2019, for which reason some parts of the parameters only start in June 2020.

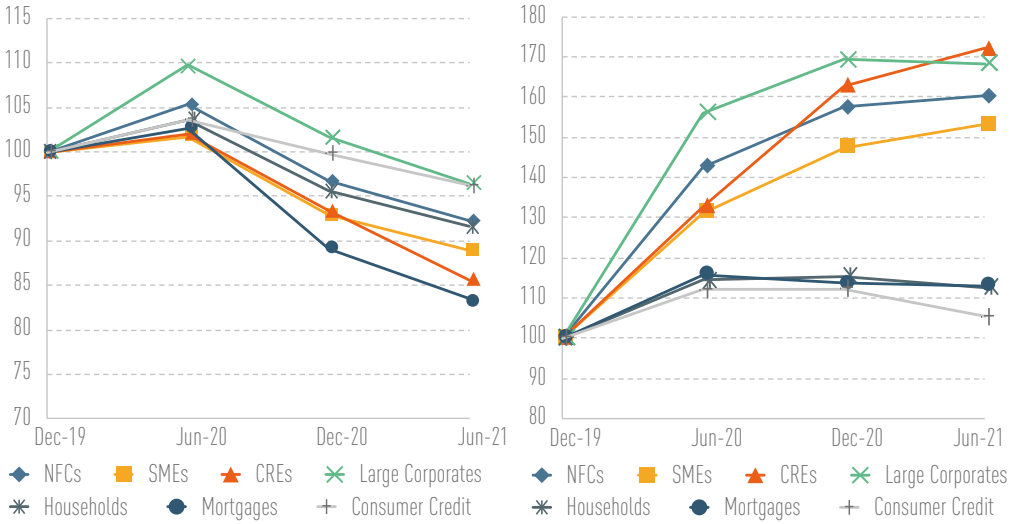
The substantial decrease in accumulated impairments and provisions for NPLs has resulted in a decrease in the NPL coverage ratio for all loan segments. It might also be explained by a reduction in the stock of oldest NPLs, not least due to above-described sales and securitisations, as older NPLs tend to have higher coverage levels (Figure 41).

Figure 41: Evolution of coverage ratios of NPLs by segment (loans at amortised cost)
Source: Supervisory reporting data.



It is noteworthy that the accumulated impairments and provisions for CRE and SME performing loans have increased by 30% and 17% respectively during the last year. The increases are even more pronounced when compared to pre-pandemic levels (72% for CREs and 53% for SMEs). This might not least be due to certain concerns that these segments could be particularly hit during the aftermath of the pandemic when, for example, support measures are phased out (Figure 42).

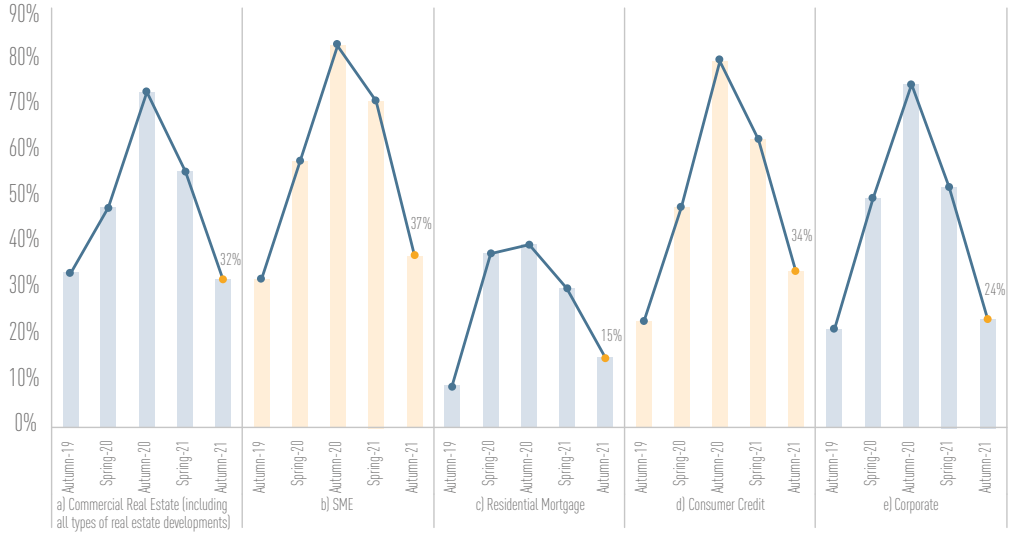
Figure 42: Evolution of provisions by segment for total loans (left chart) and performing loans (right chart) (Dec 2019=100)
Source: Supervisory reporting data



Banks' expectations for asset quality deterioration changed significantly last year

Overall, banks do not expect asset quality deterioration in the next 12 months for their household and NFCs exposures. This contrasts with the RAQ results in 2020 when more than 70% of banks expected asset quality to worsen for most segments. The high percentage vaccination roll-out, the gradual reopening of the economies, or the fact that unemployment rates have already receded from their highs seem to have increased banks' confidence (see economic trends in Chapter 1, Figure 43).

Figure 43: Banks' expectations on possible deterioration in asset quality in the next 12 months by segment
Source: RAQ for banks.



There are vulnerabilities in the regions, segments, and sectors most affected by the pandemic. As economic activity has not yet returned to pre-pandemic levels and uncertainty is still elevated, banks need to closely monitor the financial position of their clients, especially those whose loans are still under support measures or those that have benefited from forbearance measures. In addition, they need to proactively engage with their clients, differentiating between viable and non-viable ones and take the necessary action to address any potential weaknesses.

The updated relevant regulatory framework (such as the EBA Guidelines on management of non-performing and forborne exposures), the experience banks gained during the past few years in addressing NPLs, and the increase in the depth and liquidity of the secondary markets for NPLs, allow banks to be better prepared to address possible asset quality deterioration than in the previous crisis ([38]).

([38]) See the EBA's Guidelines on management of non-performing and forborne exposures (EBA/GL/2018/06 from 31 October 2018).

Box 6: Banks' expectations for loan volume and NPL trends

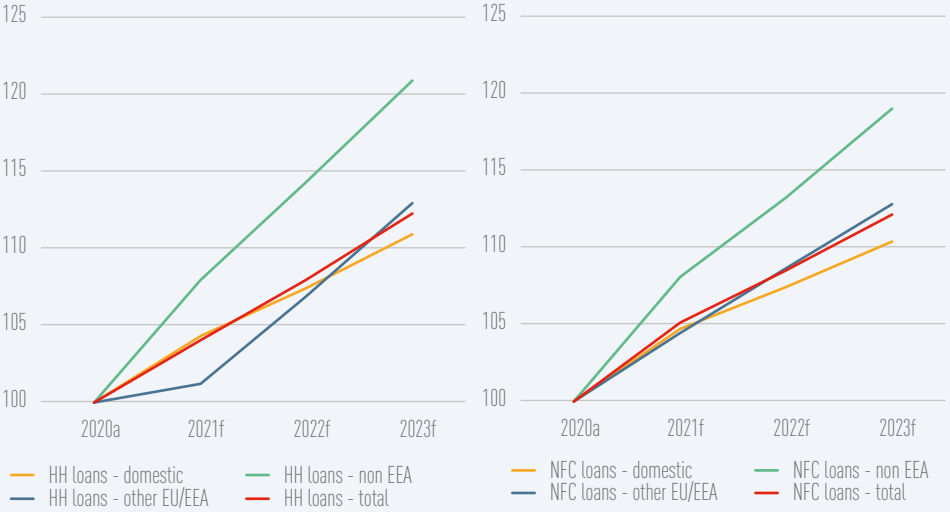
Lending to the economy and asset quality have been two key areas of concern during the pandemic. On the one hand, it was considered paramount that banks keep on lending so that there was no additional constraint on the economy besides the direct impact of the pandemic. On the other hand, there were major concerns about a potentially significant deterioration in asset quality, reflected in rising NPL ratios. The latter have – at least so far – not materialised, but there is still uncertainty not only about how NPL ratios, but also loan volumes will evolve in the upcoming quarters.

The EBA collects banks' funding plan data on a yearly basis, which also includes data on the asset side such as loan and NPL volumes ([39]). EU/EEA banks' 2021 funding plan data shows that they plan an overall increase in household and NFC loans across the planning horizon (2021 to 2023). Whereas for household loans the rise is relatively similar across all years, reaching about 4% each year, it is more uneven for loans to NFC. For the latter, banks assume a particularly strong rise this year of around 5%, and a slightly lower growth rate in the following two years (around 3%). The latter might not least be driven by the assumed GDP growth, which is presumably one of the key drivers for loan volumes, and which is similarly expected to register stronger growth this year and slow down afterwards (see Chapter 1 on macroeconomic trends).

([39]) See the EBA's Funding Plan report, with the last edition published in September 2021.

Banks' funding plans also show that loan growth is particularly strong for non-EU/EEA exposures, which seems to reverse the declining trend of these exposures in recent quarters. The average expected yearly growth rate for these exposures is around 7% for household loans and around 6.3% for NFC loans. However, the key drivers for volume trends remain domestic and EU/EEA exposures, which have the biggest share in banks' loan portfolios (see Chapter 2.1 on asset composition and volume trends). Growth of domestic exposures is expected to reach around 3.6% for households and 3.5% for NFCs. Such data might indicate that banks not least seek loan and the related profitability growth rather outside the EU/EEA than inside (see Figure 44).

Figure 44: Planned loan growth for household (HH, left) and NFC loans (right), for domestic / other EU/EEA countries / non-EU/EEA countries (2020 actual [a] = 100, following years as forecast [f])
Source: EBA Funding Plan reporting.

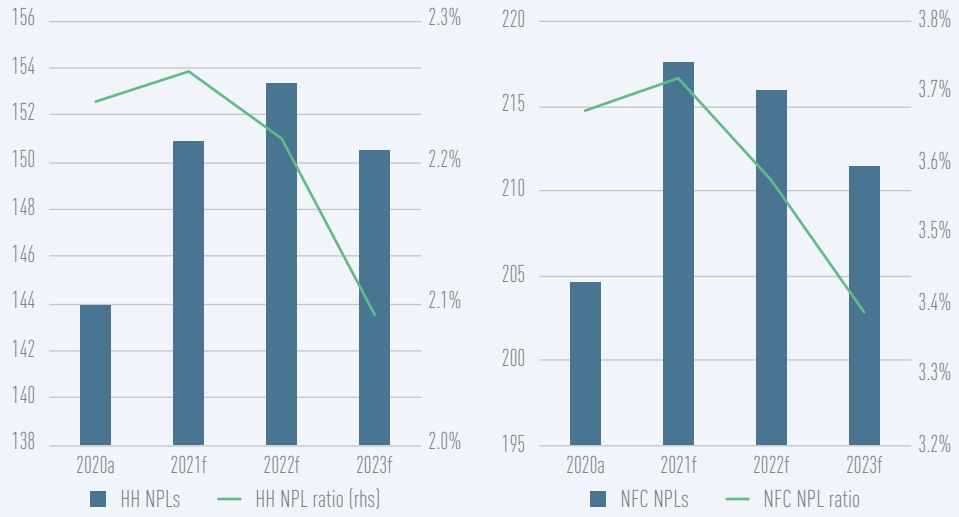


Funding plan data shows rising NPL volumes this year for both household and NFC exposures. However, whereas for NFC exposures NPL volumes are expected to return to their declining trend already next year, the peak for household exposures is assumed only for 2022. The data clearly shows that banks expect a deterioration in asset quality as a fallout of the pandemic, but the assumed NPL growth remains rather contained, reaching 6.6% from 2020 to the peak in 2022 for households and 6.3% from 2020 to the peak in 2021 for NFCs.

Not least due to the loan growth, the NPL ratio goes down from 2.2% in 2020 for households to 2.1% in 2023, and from 3.7% to 3.4% for NFCs. The data implies that even though as of Q2 2021 there was no major deterioration in NPL volumes and ratios, this might still occur. However, as funding plans represent the expectations and assumptions as of year-end 2020, the current expectations about asset quality trends might now be more optimistic, and asset quality deterioration might ultimately be more contained than assumed at the end of last year ([40]).

([40]) Loan and NPL volumes, as well as actual NPL ratios for 2020 as reported as part of Funding Plan data actually differ from financial supervisory reporting (FINREP) data as of the same cut-off date (as shown in Chapter 2.2 and e.g. the Risk Dashboard as of Q4 2020) for several reasons, including a different sample of reporting banks and inclusion of different kinds of loans (all loans vs. those at amortised cost and / or at fair value through OCI, for instance). For the sample of reporting banks for Funding Plan data, see respective report as published in September 2021.

Figure 45: Expected NPL volumes in EUR bn for household (HH, left) and NFC loans (right), and related NPL ratios (2020 actual [a], following years as forecast [f])
Source: EBA Funding Plan reporting



3. Liability side: funding and liquidity

3.1. Funding

On the liability side of the balance sheet, trends observed since 2020 after the initial stage of the pandemic mostly continued. Banks maintained their focus on customer deposits, which further increased in 2021. Central bank funding continues to be widespread and attractive. Concerning market-based funding, conditions were favourable in 2021, and banks continued with their focus on building their MREL buffers. Reversing a trend observed in 2020, the share of secured debt in the funding mix decreased between June 2020 and June 2021.

Growing importance of central bank funding

The importance and volume of central bank funding for banks has increased significantly since the outbreak of the pandemic. In the euro area and in response to the pandemic, the ECB improved the conditions of its TLTRO-3 programme in April 2020 and made it more attractive ([41]). The programme had a positive impact on limiting market concerns about EU banks and in reducing credit spreads from their temporary highs. In December 2020, the ECB extended to June 2022 the period of favourable interest rates for banks that meet the lending targets, introduced three additional TLTRO-3 operations (June 2021, September 2021 and December 2021), and raised the maximum amount that counterparties are entitled to obtain from 50% to 55% of stocks of eligible loans ([42]).

The interest rate on all outstanding TLTRO-3 operations remains at 50 bps below the average rate applied in the Eurosystem's main refinancing operations (MRO) until 23 June 2022. Also, a reduced interest rate on outstanding TLTRO-3 operations of 50 bps below the ECB's deposit rate remains in place until the same date for banks whose eligible net lending by end 2021 reaches the lending performance threshold, thus enabling banks to obtain ECB funding at markedly negative rates. Some other European central banks beyond the euro area also continued to provide additional lending facilities introduced in response to the crisis.

Allotted amounts under the TLTRO-3 programme have been significant. After allotments in the three tenders of the ECB's TLTRO-3 programme under improved conditions in 2020 were very high at a total of over EUR 1.5 tn, high usage of TLTRO-3 continued under prolonged and further improved conditions in 2021. The allotments in the first three TLTRO-3 operations in 2021 were high at EUR 330 bn in March 2021, EUR 110 bn in June 2021, and EUR 98 bn in September 2021. Despite maturing TLTRO-2 funds and repayments of TLTRO-3 funds obtained before the pandemic, additional net ECB funding obtained was significant. Opportunities to reduce funding costs for participating banks amid further improved terms for TLTRO-3 as well as interest earning opportunities were important drivers of high take-up volumes.

Figure 46: Maturing volumes of TLTRO-3

	2021	2022	2023	2024
Maturing TLTRO-3 volume	EUR 26 bn	EUR 102 bn	EUR 1,648 bn	EUR 358 bn

Source: ECB, EBA calculations ([43]).

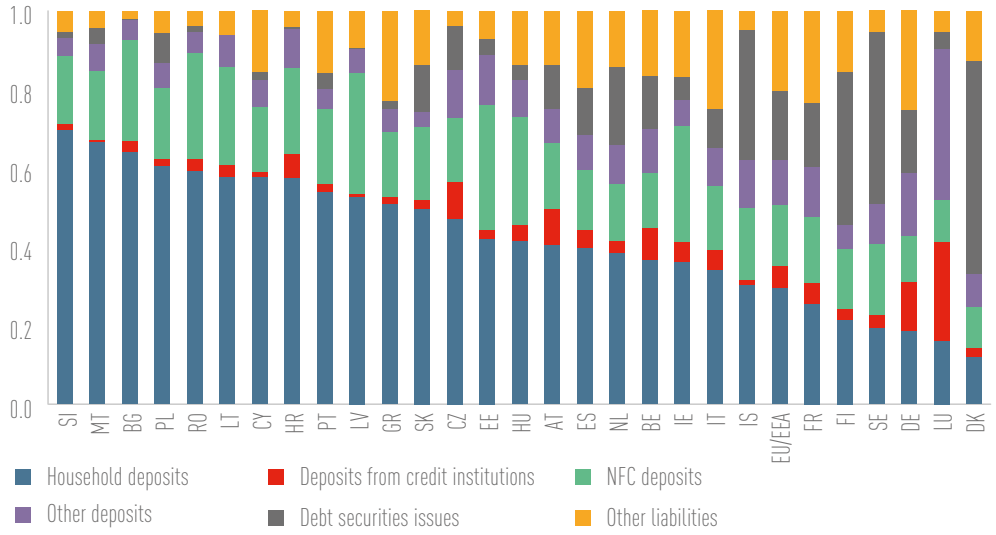
([41]) See the ECB's statement on the recalibration of their targeted lending operations.

([42]) See the ECB's statement to prolong support via targeted lending operations.

([43]) The ECB data does not reflect early repayments.

The total outstanding balance of TLTRO programmes reached a record high of about EUR 2.23 tn in September 2021, after reaching EUR 1.75 tn in September 2020. This underlines the importance of central bank funding in banks' funding structures. In comparison, the usage of ECB funding facilities reached a high of EUR 900 bn in the GFC, and approx. EUR 1.25 tn in the sovereign debt crisis of 2011/12. The strong focus on central bank funding is not least reflected in banks' financial liability compositions. The share of other liabilities, which includes deposits from central banks, is high at 20.4%, slightly lower than in June 2020 (20.8%), but well above the 16.8% seen in December 2019 (Figure 47).

Figure 47: Breakdown of financial liabilities composition by country, June 2021
Source: Supervisory reporting data.



Ample funding facilities that central banks have provided since the beginning of the pandemic have been an important factor in maintaining market confidence in EU/EEA banks in the pandemic. The continued availability of central bank funding at attractive conditions still provides an anchor for generally benign bank funding conditions in 2021, and in maintaining tight credit spreads for bank debt and capital instruments.

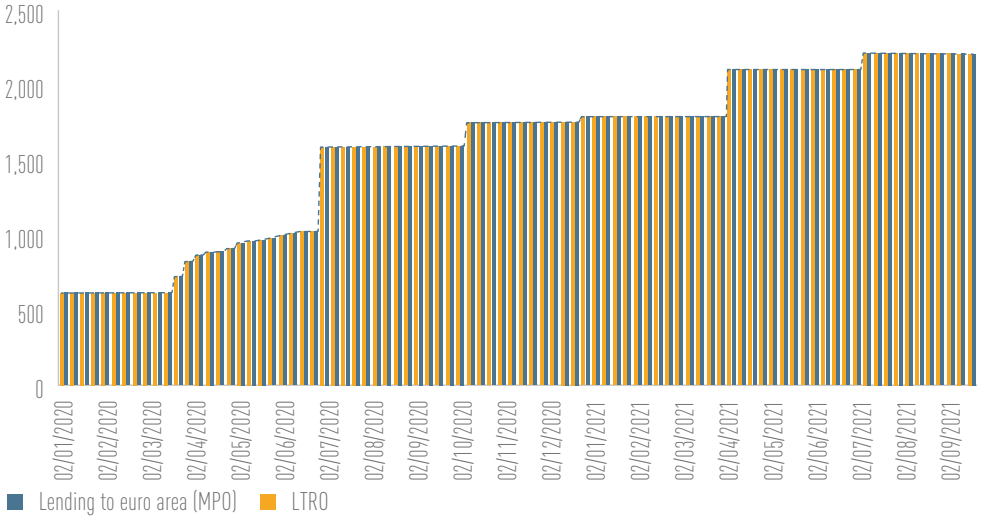
Growing relevance of central bank funding may pose structural challenges

A continuously growing relevance of central bank funding in banks' liability structures may pose structural challenges. After long-term central bank funding has been provided for a significant period since the sovereign debt crisis of 2011, banks might become increasingly reliant on this funding source. EU/EEA banks' funding plans show that until 2023, the volume of maturing TLTRO will be substantially higher than the volume of planned net debt securities issuances, indicating that banks may not yet reflect in their planning the replacement of the large volume of central bank liquidity and funding taken up during the pandemic ([44]). Yet with relatively favourable structural liquidity and short-term liquidity indicators (NSFR and liquidity coverage ratio - LCR) (see Chapter 3.2), many banks would have the opportunity to repay TLTRO without having to fully replace it by market-based funding. In this regard, as reserves they hold at central bank are high by historic standards, many banks could draw them down to repay some of the outstanding TLTRO volume.

High usage of central bank funding might, moreover, crowd out segments of market-based bank funding to the detriment of investors. For example, decreased covered bond issuance volumes in 2020 and in the first half of 2021 have been attributed to the preferences of banks for TLTRO-3. In the longer term, with growing reliance on central bank funding for a very long period, some banks may find it increasingly challenging to wean themselves off central bank funding. They might face a number of challenges in replacing it with market-based funding or with deposits, should long-term central bank funding not be prolonged further.

([44]) See the EBA 2021 Funding Plans Report.

Figure 48: ECB lending to the euro area with focus on long-term refinancing operation (LTRO) (EUR bn)
Source: ECB, EBA calculations.



Central bank funding is driving up asset encumbrance

High usage of central bank facilities has been an important driver of increasing encumbrance of assets. The overall asset encumbrance ratio increased from 27.5% in June 2020 to 29.1% in June 2021, and central bank funding has become the main source of asset encumbrance. More than half of central bank eligible assets and collateral were encumbered in June 2021 (53.4%), after a strong increase during the pandemic (44.6% in December 2019). Contrary to central bank funding, the share of covered bonds and asset-backed securities (ABS) issued as a source of encumbrance decreased until June 2021. This is in line with decreasing covered bond issuance volumes, which have become less relevant as a source of funding (see below).

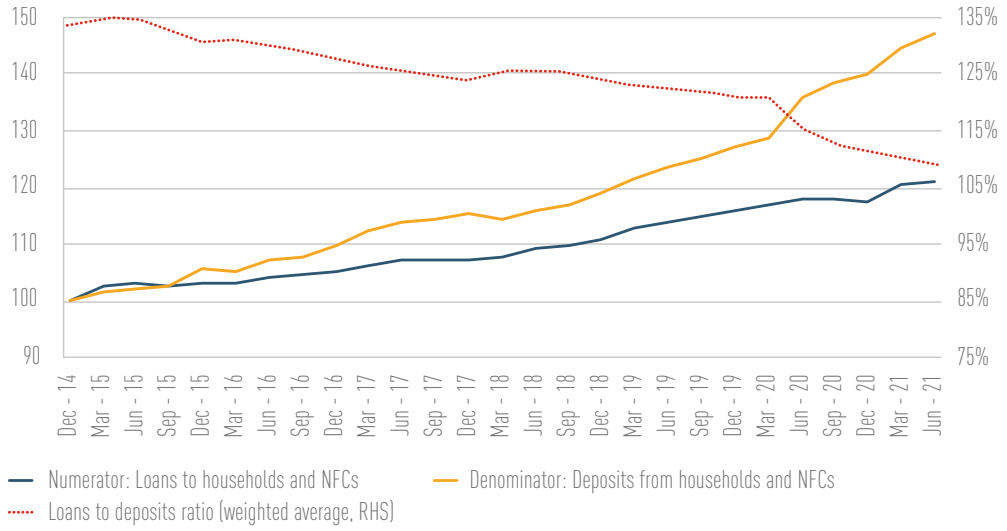
Increasing encumbrance ratios might pose some prudential risks. As encumbrance subordinates unsecured creditors, they might demand higher spreads in stress situations. Increasing encumbrance ratios might also raise concerns among secured creditors that may demand higher overcollateralisation levels, apply larger haircuts on collateral, or make margin calls.

Deposit base continues to increase

Deposit volumes continued to increase strongly in 2021. This was despite no or little remuneration for depositors and a further increasing usage of negative interest rates compared to 2020 (on yields from deposits see also Chapter 5). Since the start of the pandemic, volumes of household deposits and customer deposits from NFCs particularly increased. The share of the former in total financial liabilities increased from 27.6% in March 2020 to 29.3% in June 2021, while the share of the latter increased from 13.9% to 15.5% in the same period (Figure 47).

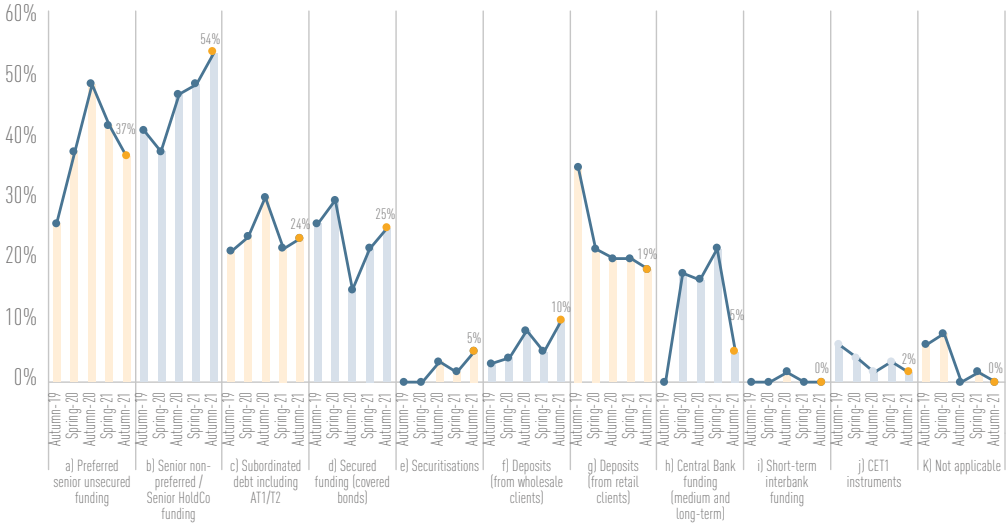
The increase in deposits from NFCs may be attributable to efforts of NFCs to maintain high liquidity positions against uncertainties about the path of the pandemic and the economic recovery (see on NFCs' drawing of credit lines Chapter 2.1). NFC deposits increased despite widespread negative rates. About 60% of banks indicate in their responses to the RAQ that they apply negative interest rates to NFC deposits on current accounts. The total volume of household deposits also continued to increase. Reduced consumption in the pandemic is among factors for increasing household deposit volumes (Figure 49; on the share of banks applying negative rates to household and NFC deposits see Figure 91).

Figure 49: Loan-to-deposit ratio (weighted average) and loan-to-deposit ratio dynamics (trends in numerator and denominator; December 2014 = 100), over time
Source: Supervisory reporting data.



The strong increase in deposits, which has occurred at a significantly faster pace than the rise in loans, has resulted in a decreasing loan-to-deposit ratio. It stood at 108.9% in June 2021 (115.3% in June 2020) (Figure 49). These developments reflect past strategies of banks to focus on more stable and cheaper sources of funding. Going forward, banks intend to place less importance on attracting retail deposits. The share of respondents planning to attain more retail deposits in the next 12 months has decreased from 35% in autumn 2019 to 19% in the latest RAQ. Attaining more senior unsecured funding, senior non-preferred funding and secured funding (covered bonds) has currently more importance in banks' plans. Bank funding plans similarly indicate that deposit growth is expected to slow down until 2023, following the strong growth in 2020 ([45]). However, contrary to their intention to place less attention on retail deposits, an increasing share of 10% of banks intends to attain more wholesale deposits (Figure 50).

Figure 50: Funding instruments banks intend to focus on in the next 12 months.
Source: RAQ for banks.



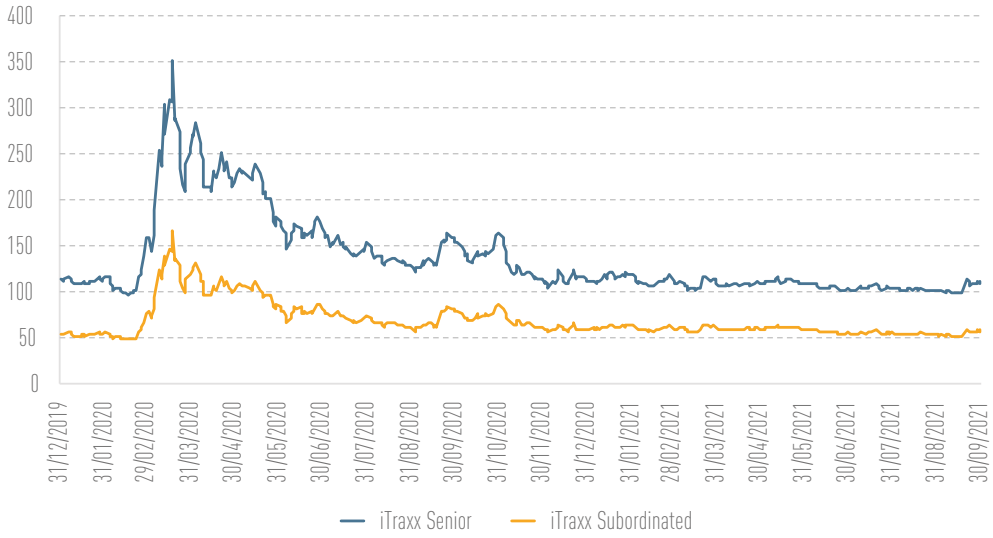
([45]) See the EBA 2021 Funding Plans Report.

The high inflow of customer deposits potentially added to the rise in bank liquidity (see Chapter 3.2). Banks have only translated a minor share of increased deposit volume into higher lending volumes. They are not in a position to completely pass their costs for holding excess deposit volumes at central banks at negative rates onto their depositors. These factors contribute to observations that attracting further deposits has become a less favourable option for attaining additional funding in spite of the stability that deposit funding traditionally offers (on efforts to turn customer deposits into assets under management [AuM] see Chapter 5).

Spread and pricing trends: steady contraction, but some volatility persists

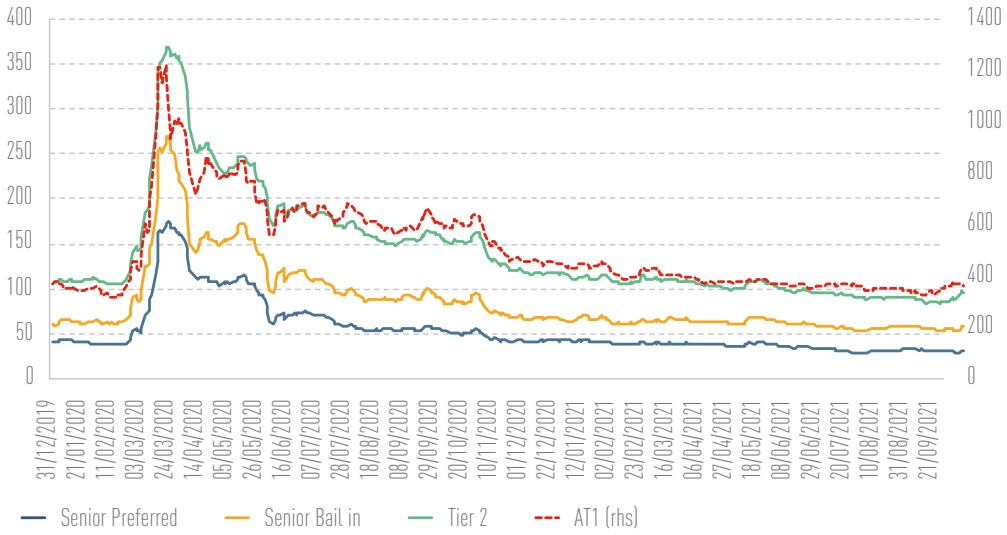
Spreads of all market funding instruments steadily decreased from temporarily very wide levels at the outbreak of the pandemic until the end of last year. They remained at low levels in 2021, with a further slight downward trend. Continued and extended wide-ranging monetary and fiscal support and an improving economic outlook - despite some uncertainty (see Chapter 1) – supported the steady contraction. Tightening spreads were also a reflection of improving investor risk perceptions about the economic implications of the pandemic and the health of banks. Bouts of market volatility were observed throughout 2021, although financial markets were not as volatile as in the early stages of the pandemic. Funding markets this year continued to be susceptible to adverse news about the course of the pandemic as well as to political events and adverse economic news such as inflation trends and commodity prices (Figure 51).

Figure 51: iTraxx financials (Europe, senior and subordinated, 5 years, bps)
Source: Bloomberg, EBA calculations.



Interest rate volatility has also been substantial amid heightened market uncertainty about the future course of monetary policy. Bank funding instruments have not been immune from market movements. Nonetheless, the spreads of the different types of debt instruments have been on an overall downward trend for most of the year, with the largest decrease observed in Tier 2 and AT1 instruments.

Figure 52: Cash spreads of banks' debt and capital instruments (in bps)
Source: IHS Markit, EBA calculations ([66]).



Looking forward, spreads and pricing for bank funding instruments continue to be susceptible to potentially sharp increases, and tight levels still need to demonstrate their long-term sustainability. This will not least depend on the further course of the pandemic, and on a successful transition to a benign post-pandemic economic environment (see Chapter 1 on general economic trends and expectations).

Primary funding activity reflects benign market conditions in 2021

Improving market sentiment since very high volatility in the initial stages of the pandemic was maintained in 2021. Generally, large and medium-sized banks have been able to issue instruments across the capital stack at favourable costs since the early phase of the pandemic. Amid steadily improving funding market conditions in the first three quarters of 2021, smaller banks and banks with heightened risk perceptions have also been able to issue subordinated instruments at reasonable costs. Their issuance also included instruments lowest ranked in the capital stack, such as AT1 bonds. Some reluctance to place subordinated instruments, mainly connected to higher pricing and concerns about investor reception, nevertheless continued to persist for a few banks perceived as significantly riskier.

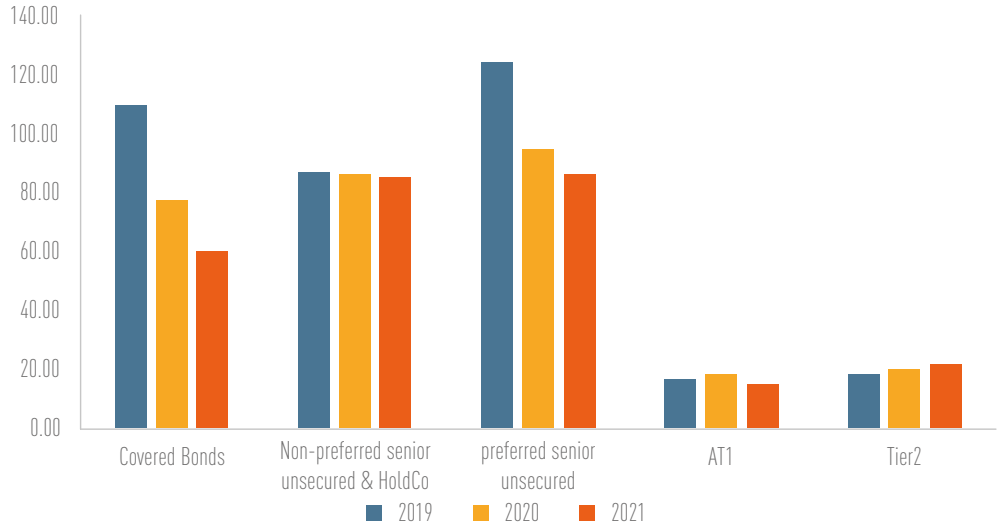
Bank bond issuance volumes were relatively low at the beginning of the year compared to high pre-pandemic issuance volumes early in 2020, and after banks had attracted ample funding in the second half of last year. Later in 2021, unsecured bond issuance volumes increased amid favourable funding market conditions. Banks also tended to make use of episodes of particularly benign conditions in the first half of 2021 to speed up their annual funding plans, contributing to increased issuance activity. By aiming to attain annual funding plans early in the year, banks not least intend to facilitate a weathering of possible periods of high volatility.

Continued focus on loss-absorbing instruments

Eligibility for MREL was a key feature of issuance activity of unsecured instruments in 2021. Issuance volumes of senior non-preferred instruments, Tier 2 instruments, and instruments issued by banks' holding companies (senior holding company - HoldCo) remained stable and partially increased, while issuance volume of AT1 instruments was slightly lower. Issuance volume of senior preferred bonds continued its declining trend (Figure 53).

([66]) Neither Markit Group Limited ("Markit"), its Affiliates or any third party data provider makes any warranty, express or implied, as to the accuracy, completeness or timeliness of the data contained herewith nor as to the results to be obtained by recipients of the data. Neither Markit, its Affiliates nor any data provider shall in any way be liable to any recipient of the data for any inaccuracies, errors or omissions in the Markit data, regardless of cause, or for any damages (whether direct or indirect) resulting therefrom.

Figure 53: Issuance volumes of EU banks' debt and capital instruments in the EU, Q1 – Q3 2019 - 2021 (in EUR bn) [47]
Source: Dealogic, EBA calculations.



Responses to the RAQ also indicate that senior non-preferred instruments and senior HoldCo funding are the type of instruments that banks intend to focus most on in the next 12 months. Attaining subordinated debt instruments, including AT1 and Tier 2, and senior preferred unsecured instruments will be an important focus in the next 12 months, but with decreasing relevance for the latter instrument type (Figure 50). Bank funding plans confirm that banks plan for the strongest increase of issuance volumes of senior-non preferred instruments until 2023. Their eligibility for MREL, while offering price advantages for issuing banks compared to some other MREL eligible instruments, may explain a preference for these instruments. Analysts confirm in the RAQ their expectations of a strong focus on senior non-preferred instruments going forward, and three quarters of analysts expect banks to focus on them in the next 12 months.

Reduced relevance of covered bonds, but prospects of increasing issuance

In contrast to unsecured funding instruments, covered bond issuance volume in the first half of 2021 has been substantially lower than in 2020. Already in 2020, covered bond issuance was on a decreasing trend. The focus of banks' market funding activity has been on instruments that offer more regulatory benefits for issuing banks, including those with MREL eligibility. The TLTRO-3 funding that banks have obtained offers funding at lower costs than issuing covered bonds for many banks. This has partly crowded out covered bond issuing. Central bank buying of covered bonds, such as the ECB's PEPP and its covered bond purchase programme, has also led to some crowding out of private sector investors from covered bonds.

Yet covered bond issuance volume increased in the third quarter of 2021, in particular in September after the seasonal summer slowdown. Going forward, prospects are again for continued heightened covered bond issuance volumes. The share of respondents to the RAQ intending to attain more covered bonds in the next 12 months has increased to 25%. Further beyond, banks funding plans indicate plans for strongly increased covered bond issuance volumes in 2022 and 2023 [48]. Higher expected issuance volumes may partly be driven by the high volume of maturing covered bonds going forward, which will markedly exceed issuance volumes in 2020 and 2021.

Progressing towards attaining required amounts of MREL

To build up loss absorbing capacities and attain required amounts of MREL, as stipulated by the Bank Recovery and Resolution Directive (BRRD), has been a key funding strategy in 2021. In the EU, an estimated 80% of EU banks' domestic assets are covered by resolution strategies other than liquidation [49]. This implies a need to build and hold adequate MREL amounts above minimum capital requirements, and the need to attain respective eligible funding. Accordingly, eligible

[47] Based on publicly available market data which may not completely reflect all issuances of the different types of debt and capital instruments.

[48] See the EBA 2021 Funding Plans Report.

[49] See the EBA Quantitative MREL Report as of December 2019, published May 2021.

instruments such as senior non-preferred have been the most important source of market funding.

Although a growing number of banks concerned have already attained their required amounts of MREL-eligible instruments, considerable amounts of MREL-eligible debt still need to be issued to close shortfalls of required eligible amounts. Responses to the RAQ indicate that only 19% of respondents have already attained enough MREL, although this share has increased considerably compared to previous iterations of the RAQ (Figure 54). The EBA estimates that out of the 238 resolution groups in the scope of resolution, 111 EU resolution groups exhibited an MREL shortfall of approx. EUR 102 bn as of December 2019, down from EUR 172 bn the previous year[50]. In terms of total assets, institutions with a shortfall represent about 28% of EU total domestic assets ([51]).

BRRD 2 provides further clarity on MREL

Significant issuance activity of eligible instruments has taken place after the early stages of the pandemic, and shortfalls of eligible amounts were likely reduced since December 2019 ([52]). Also, BRRD 2 has come into force and removed some remaining divergence in the effective MREL eligibility criteria applied between jurisdictions, as well as uncertainty about the eligibility of certain instruments across jurisdictions. Accordingly, the share of RAQ respondents referring to uncertainty about the eligibility of instruments for MREL or on required amounts as a constraint to issue MREL-eligible instruments has decreased steadily (Figure 54). BRRD 2 also harmonises the calibration of MREL for all institutions, clarifies the level of subordination required for the largest banks (Global Systemically Important Institutions [G-SIIs] and banks with total assets above EUR 100 bn), and stipulates 1 January 2024 as a common date for compliance with MREL requirements in the EU.

Building loss-absorbing capacity is a key driver of funding strategies

Responses to the RAQ confirm that the implementation of MREL requirements is a key driver of funding strategies. Senior non-preferred and senior HoldCo funding is by far the most important funding source banks intend to focus on (54% agreement, Figure 50). As pricing continues to be the main constraint to issuing MREL-eligible instruments, according to the RAQ (Figure 54), the price advantage offered by senior non-preferred and HoldCo funding compared to other instruments eligible for MREL may be an important driver of the further growing relevance of this funding source.

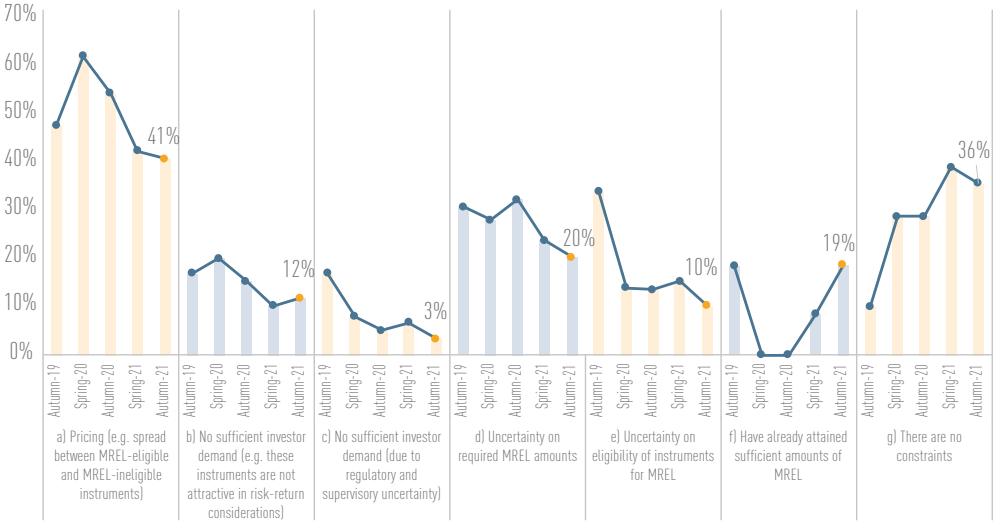
Pricing challenges as a constraint to issue instruments eligible for MREL relate particularly to banks with weaker market perceptions and some medium-sized banks domiciled in countries more affected by the pandemic and sovereign debt concerns. Heightened instrument pricing continues to be an important consideration for these banks to access funding markets, as they often also face major profitability challenges. Concerning market absorbability of MREL-eligible instruments, the share of RAQ responses pointing to doubts about sufficient investor demand has decreased to a nearly neglectable 3%. This may reflect generally benign market conditions in 2021, and the high interest of yield-searching investors in an environment of low and negative interest rates.

([50]) Shortfall figures are based on 111 resolution groups on a comparable basis

([51]) See the EBA Quantitative MREL Report as of December 2019, published May 2021.

([52]) According to its mandate, the EBA monitors the roll-out of MREL decisions and the build-up of resources in the EU. December 2020 data will be published in the December 2020 EBA Quantitative MREL Report.

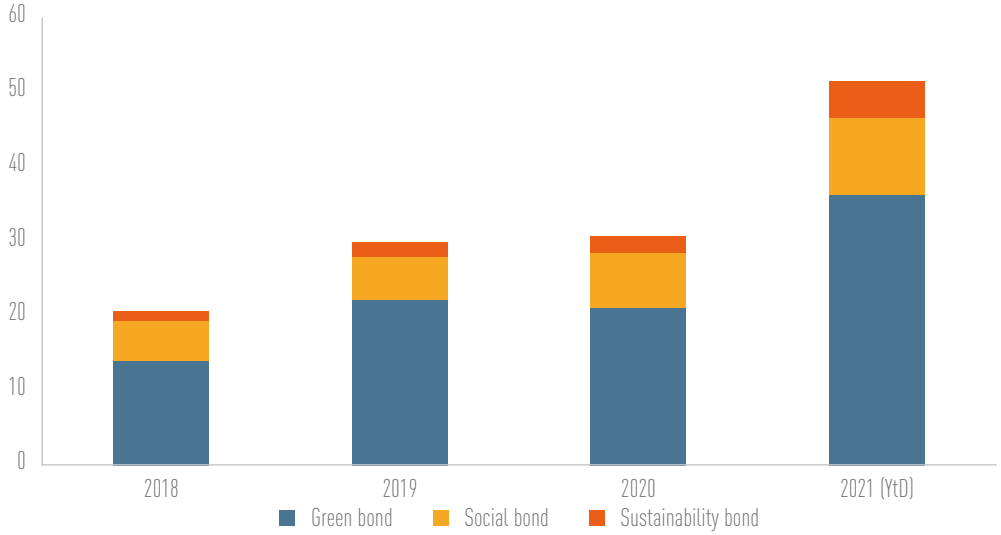
Figure 54: Constraints to issuing subordinated instruments eligible for MREL
Source: RAQ for banks.



The share of ESG-labelled bonds continues to rise

ESG bonds have become more important as a funding source for banks in recent years. The share of ESG bonds over total bank issuances has increased substantially over the past few years. As of September 2021, they accounted for around 20% of the total volumes issued in 2021, up from approximately 10% at the end of 2020. Beyond growing investor demand, the increasing use of these funding instruments reflects banks' efforts to integrate ESG risk considerations into their risk management (Figure 55; on integration of ESG-related risk considerations see Box 1).

Figure 55: EU banks, issuances of green, social and sustainability bonds in the EU over time (EUR bn)
Source: Dealogic, EBA calculations.

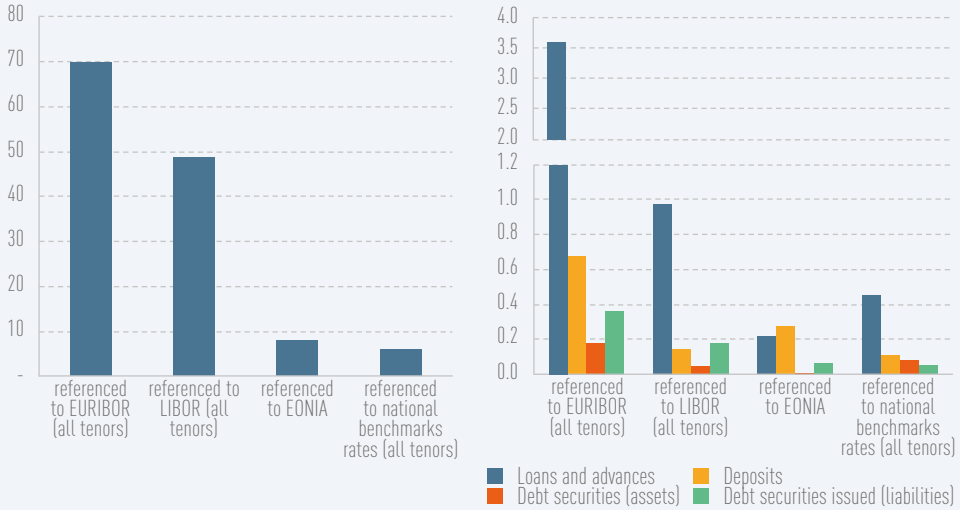


Box 7: Benchmark rates transition risks

Benchmark (interest) rates, such as the Euro Interbank Offered Rate (EURIBOR) and the London Interbank Offered Rate (LIBOR), play an important role in banks' daily business. They are used in many kinds of contracts, such as mortgages or other credit products, bond investments or issuances, as well as derivatives. Several of these benchmark rates are nearing their cessation or have ceased. These include the LIBOR and the Euro Over Night Index Average (EONIA) ([53]). Alternative nearly risk-free rates (RFRs) have been developed in various jurisdictions, including the Euro Short-Term Rate (€STR), the Secured Overnight Financing Rate (SOFR) for USD or the Swiss Average Rate Overnight (SARON) for CHF.

An indicative analysis based on a data collection in 2020 shows that EU/EEA banks have major positions in benchmark rate referencing financial instruments ([54]). The collected data shows that there are almost EUR 57 tn of derivatives (notional amounts) linked to LIBOR and EONIA. Loans and advances linked to ceasing LIBOR rates reach a volume of around EUR 1 tn (mostly USD LIBOR related exposures) and EONIA referenced loans and advances of around EUR 0.2 tn. EU/EEA banks' exposures referencing to new RFRs are comparatively low according to the data collection. However, according to market data, indications are that derivative volumes referencing to new RFRs have been on the rise recently ([55]) (Figure 56).

Figure 56: Volumes of derivatives (notional amounts; left) and other assets and liabilities linked to benchmark rates (which are not new RFRs; right) by type, EUR tn
Source: EBA note on benchmark rates transition risks.



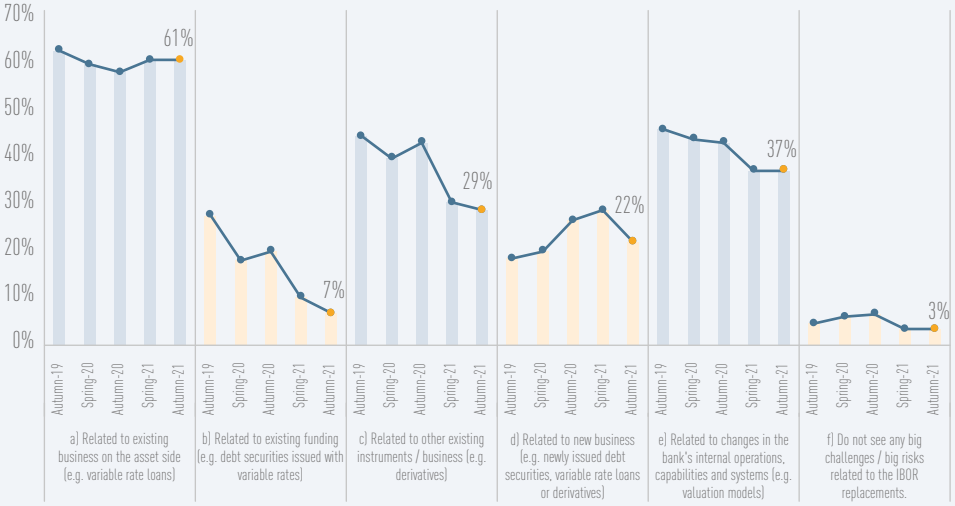
The transition from ceasing benchmark rates to new RFRs is a key risk for banks and other market participants. Banks see key challenges related to such benchmark rate transitions mainly concern business on the asset side, such as variable loans. This challenge has been considered on a relatively constant high level already in recent years (banks' agreement in the recent RAQ was around 60%). This is presumably due to the need for contractual changes in a large volume of small amount loans, which additionally pose legal and conduct risks (on the latter risks in more general see Chapter 6). The second most important challenge remains related to changes in internal operations, capabilities and systems, such as risk management or valuation tools (agreement of around 37%). Challenges related to, for instance, the liability side (such as funding instruments with variable rates) or other business (such as derivatives) have been in constant decline in recent years (Figure 57).

([53]) Most settings for different LIBOR currencies and tenors will cease at the end of 2021. Certain USD LIBOR settings will only terminate at the end of June 2023. EONIA will be discontinued on 3 January 2022.

([54]) See the EBA's note on benchmark rates transition risks published in October 2021, which explains the data collection in more detail and provides further analysis of respective exposures and risks.

([55]) See on volume trends in new RFR referencing derivatives the International Swaps and Derivatives Association (ISDA) Clarus RFR Adoption Monitor and its accompanying monthly research notes. Also European Securities and Markets Authority (ESMA)'s Report on Trends, Risks and Vulnerabilities from March 2021 points to rising RFR referencing interest rate swap volumes.

Figure 57: Areas in which banks see the biggest challenges and potentially the biggest risks in their preparations in view of the interbank offered rate (IBOR) replacements
Source: RAQ for banks



Competent authorities (CAs) have a relatively similar view to banks, considering the biggest risks in the transition of the asset side and internal operations ([56]). They particularly point to LIBOR-linked exposures as a major risk, not least USD and CHF referencing ones. Concerns related to the update and validation of internal risk models are examples of risks related to internal operations. Also, the development of the market infrastructure and liquidity in LIBOR-referencing products is considered a key risk.

It remains paramount that banks address benchmark rate transition-related risks. The change of affected contracts is a central risk, for which cooperation with clients or other affected third parties is important, not least to avoid any potentially rising legal or conduct-related risks. Banks and other affected market participants need to adhere to guidance from regulators and other authorities involved in the transition of benchmark rates. If banks do not manage benchmark rate transition- related risks in time and properly, there is a high probability that potential negative impacts on their business are of even more concern than the short-term risks – due to potential long-term litigations, impacts on reputation, loss of customers and market share, ineffectiveness of hedging strategies and similar consequences.

([56]) See the qualitative analysis in the EBA's note on benchmark rates transition risks published in October 2021, which explains the data collection in more detail and provides further analysis of respective exposures and risks.

3.2. Liquidity

Banks' liquidity remained high, following its significant rise at the outbreak of the pandemic. As of June 2021, the main liquidity indicators show a strong position of banks across the EU, with the LCR standing at a comfortable 174.5% and the recently introduced NSFR at 130%.

Banks have maintained their LCR at the high levels attained during the pandemic

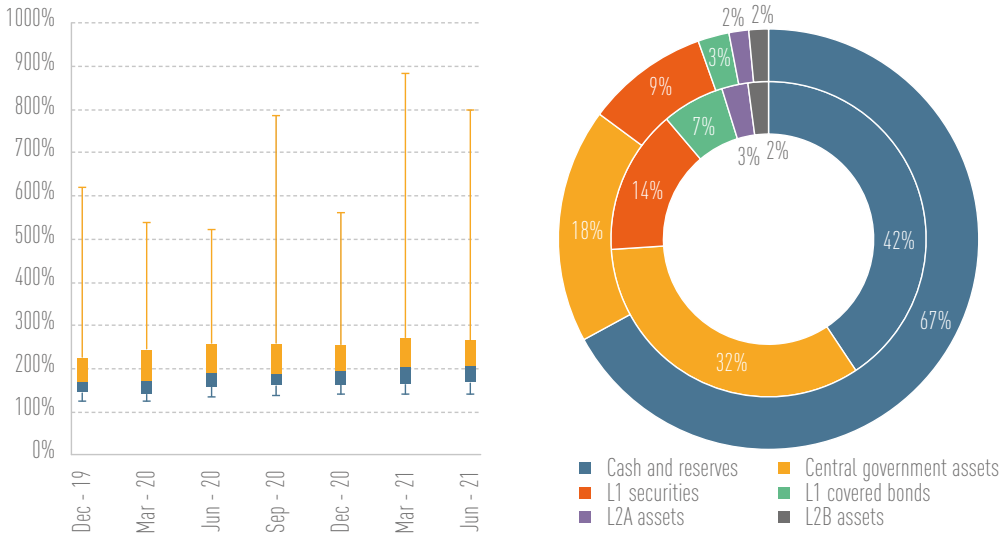
After a strong increase in the first half of 2020 (from 148% to 166%) on the backdrop of extraordinary liquidity-enhancing measures implemented by central banks, the LCR continued to increase, albeit at a smaller pace. It reached 174.5% in June 2021 (for central bank measures see Chapter 3.1, and for the increase in cash balances with central banks Chapter 2.1).

The increase of the liquid assets – the numerator of the LCR – was the key driver of the rise of the LCR. As of June 2021, it increased by 17% YoY (53% since December 2019) ([57]). As a share of total assets, liquid assets rose

([57]) The LCR is the ratio between liquid assets and net outflows. Both outflows and inflows considered for calibrating the liquidity requirements represent a reduced share of the overall contractual amounts. In the case of outflows, this takes into account the fact that a sizeable share of the amounts reaching maturity are actually rolled over into new funding (as at June 2021, the outflow requirements represented about 20% of the actual contractual outflows). Similarly, a large part of the inflows is either rolled over or used to generate new financial assets (with just around 40% considered for the purpose of reducing the estimated liquidity outflows).

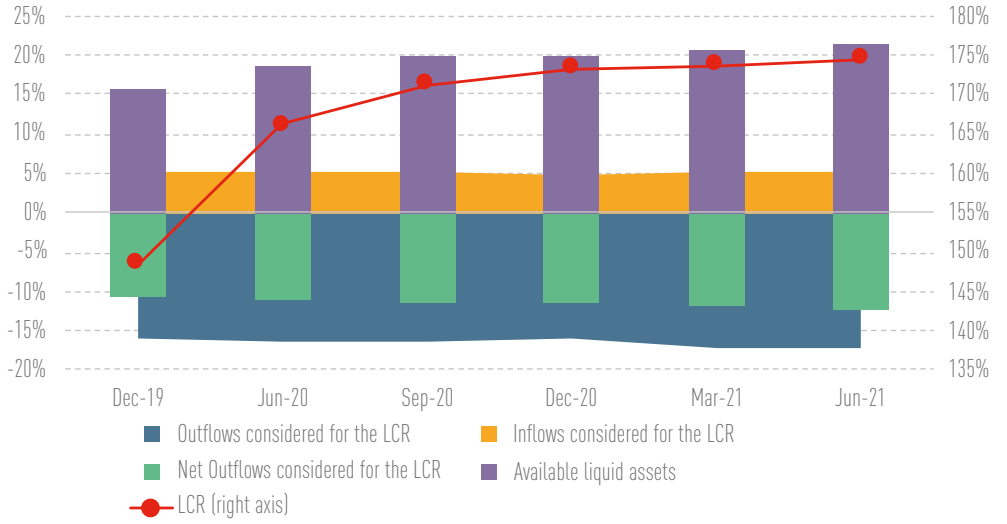
from 15.8% in December 2019 to 21.4% in June 2021. Within liquid assets, the most significant change since December 2019 was a reduction of exposures in the form of central governments, whereas central bank reserves rose significantly. This particularly applies to euro area banks. It is not expected to reverse in the near future, particularly in relation to refinancing operations with central banks (such as the ECB's TLTRO-3, with maturities extending at least until 2023; see Chapter 3.1).

Figure 58: Banks distribution of the LCR (median, interquartile range, 5th and 95th percentiles) and composition of liquid assets as of December 2019 (inner circle) and June 2021 (outer circle)
Source: Supervisory reporting data.



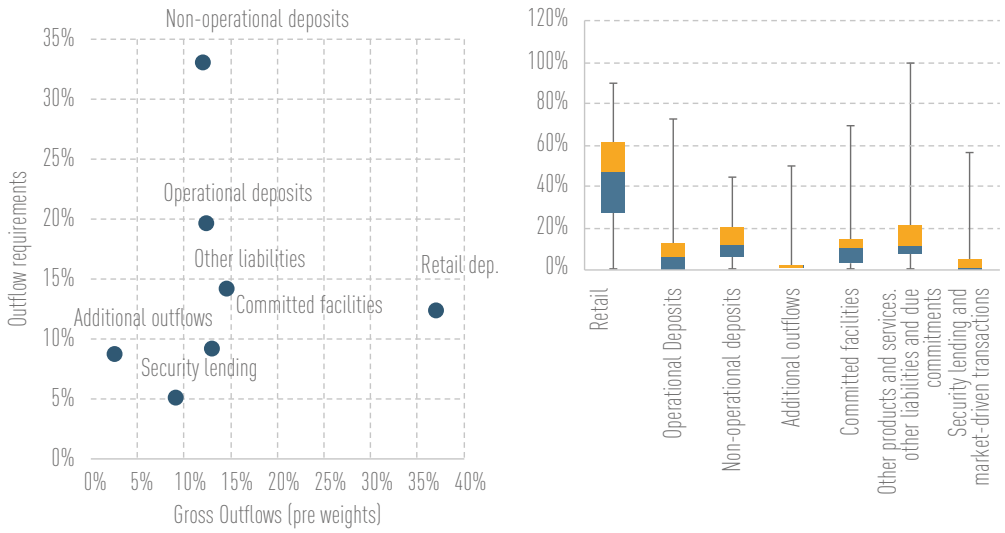
Similar to liquid assets, the denominator of the LCR – the net liquidity outflow – was also on the rise. As of June 2021, it increased by 11.4% YoY (30.2% since December 2019). Measured as a share of total assets, net outflows rose from about 10.6% to 12.3%. The rise was primarily driven by an increase of gross outflows, while inflows – which are deducted from gross outflows to calculate the net outflows – remained more or less unchanged, accounting for between 5% and 6% of total assets. However, the higher net outflows were more than offset by the significant increase in liquid assets, leading to an overall increase of the LCR.

Figure 59: Main components of the LCR as a share of total assets
Source: Supervisory reporting data.



Retail deposits have the biggest share of gross outflows (for the increase of retail deposits see also Chapter 3.1). When considering the LCR calculation, this is another positive aspect related to this type of funding source: the liquidity requirements for retail deposits, determined by weighting the gross outflows, are comparatively low, due to their lower withdrawal rate volatility when compared with other sources of funding (e.g. non-operational deposits) (Figure 60).

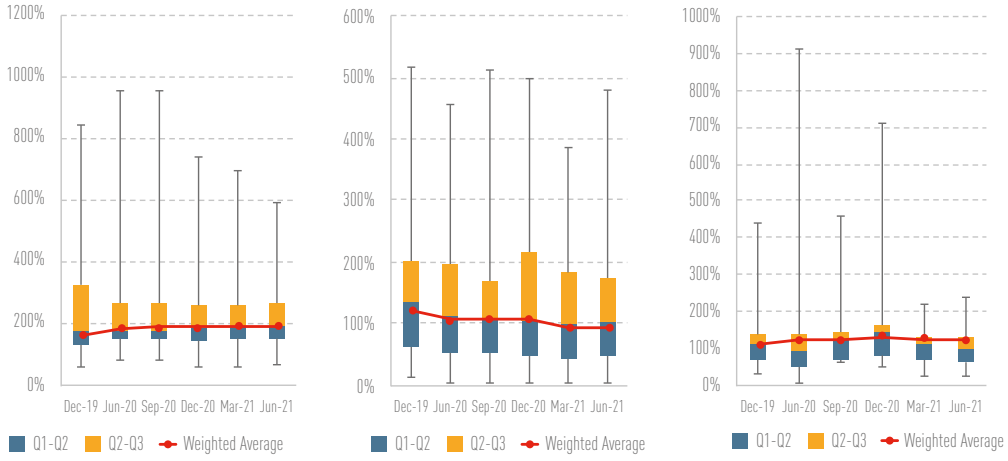
Figure 60: Outflows (pre-weights) vs gross outflow requirements (left, June 2021), outflows (pre-weights) (right, June 2021)
Source: Supervisory reporting data.



Weighted average LCRs for USD is below 100%

EUR LCR values are significantly above 100%. The weighted average value across different periods tends to be high and close to the overall LCR (the ratio has increased from 150% in December 2019 to 182% in June 2021). Lower values of the EUR LCR can be observed only for some countries outside the Euro Area. Among those banks that reported foreign currencies as significant, USD outflows account for an important share of total net outflows, at about 16.6%. GBP is the second most relevant foreign currency but only accounts for about 3.4% of the total net outflows. Vulnerabilities can be seen in the case of the USD LCR, with a weighted average USD LCR consistently below 100% (86.3% as at June 2021, down from 113.7% as at December 2019). The median USD LCR is above 100%, which indicates that the mismatch is particularly relevant for some of the largest banks reporting USD as a significant currency. In contrast, the weighted average GBP LCR stood at about 114% in June 2021, compared to 101% in December 2019.

Figure 61: LCR by currency (EUR LCR -left, USD LCR -middle, GBP – right [58])
Source: Supervisory reporting data.

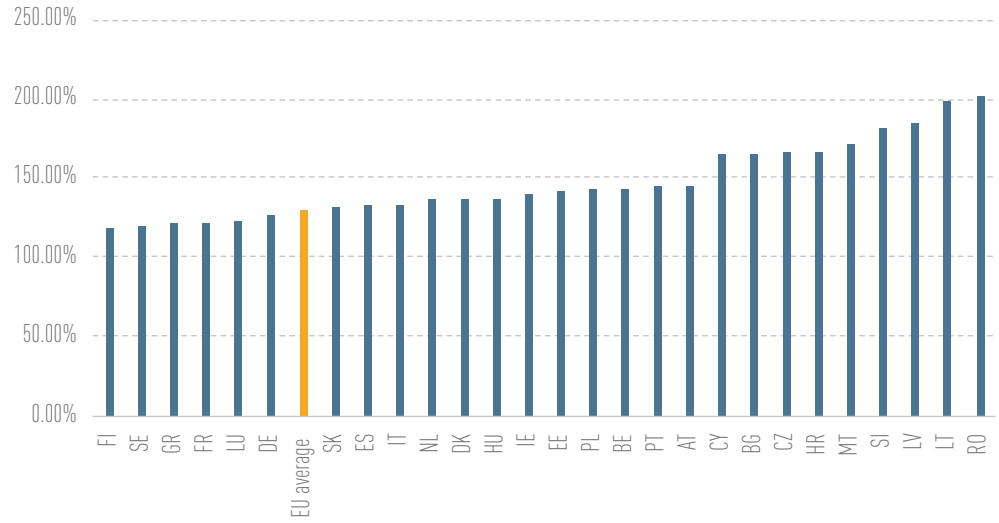


[58] The credit risk mitigation does not require banks to include the reporting currency among significant currencies. For the computation of EUR LCR, only banks specifically reporting the EUR as a significant currency were considered. The values are capped at the 95th percentile to allow meaningful representation.

The recently introduced NSFR shows a comfortable position for banks in all jurisdictions

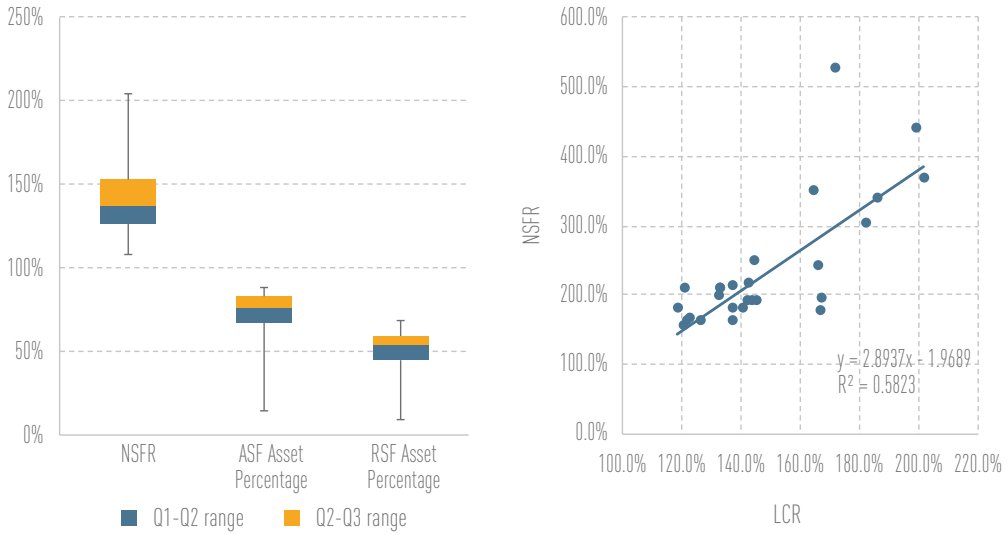
With an EU aggregate figure of 129%, the recently introduced NSFR, a structural liquidity indicator, shows an adequate level for all EU countries. Unlike the LCR, the NSFR addresses supervisory concerns about banks' over-reliance on short-term funding. The indicator reflects the ability of banks to ensure an appropriate level of funding that can sustain various asset structures. Ensuring compliance with the indicator is achieved via funding strategies consistent with longer-term maturities and/or funding sources that are less sensitive to market conditions (such as retail deposits). At country level, all average ratios are above 100% (Figure 62).

Figure 62: Net stable funding across EU countries
Source: Supervisory reporting data.



A bank-by-bank comparison shows only low dispersion of the numerator and denominator of the NSFR, the available stable funding (ASF) and the required stable funding (RSF) respectively. At country level, the complementary nature of the NSFR to the LCR is shown by their strong correlation. However, at bank level the correlation is lower, suggesting that country factors, such as the share of liquid assets and/or wholesale funding, influence both NSFR and LCR to a large extent (Figure 63).

Figure 63: Net stable funding: distribution at bank level (left) and correlation with the LCR at country level (right)
Source: Supervisory reporting data.



Traditionally, the maturity transformation function has been a key factor explaining the large maturity mismatches observed. This is because banks tried to capitalise on the significant spreads of long-term interest rates over the short-term ones under upward sloping yield curves, sometimes at the cost of funding stability. However, the current environment of (ultra-) low and even negative interest rates pose a significant challenge to this approach. This environment could effectively support a rise in NSFRs going forward, as banks might tend to make use of longer-term market-based financing.

While the NSFR value is comfortably above the minimum threshold for all countries, central bank funding plays a role in ensuring some banks' compliance with the newly introduced indicator, particularly for banks located in the euro area. This is due to the extraordinary measures undertaken by central banks (ECB in particular) that allowed banks to increase the withdrawable central bank reserves via collateralised operations against non-marketable collateral (such as credit claims) or other types of collateral generating less significant additional stable funding requirements over the central bank funding period (such as covered bonds and ABS). The unwinding of the central bank funding for banks that rely heavily on less liquid collateral might therefore impact significantly their NSFRs over a long-term horizon. Assuming an exclusion of central bank funding from the numerator only, the average NSFR of EU/EEA banks would be around 115% (an average decrease of about 14 p.p.) ([59]). It would also imply that 10 banks would not meet their NSFR requirements.

As a conclusion, even though the current NSFR is well above the minimum threshold, future changes in bank funding structure might at the same time imply a negative impact on their funding costs. Changes in the structure of funding due to reduced shares of central bank funding as well as the potential impact of a steepening of the yield curve might result in lower stable funding structures of banks, particularly if this is accompanied by long-term lending projects.

([59]) The negative impact of a reduction in central bank funding over the NSFR has been conservatively estimated by only considering a reduction of the available stable funding without a corresponding reduction of the required stable funding. It is expected however that part of the currently encumbered collateral will generate lower required stable funding at the end of the encumbrance period (central government bonds, covered bonds).

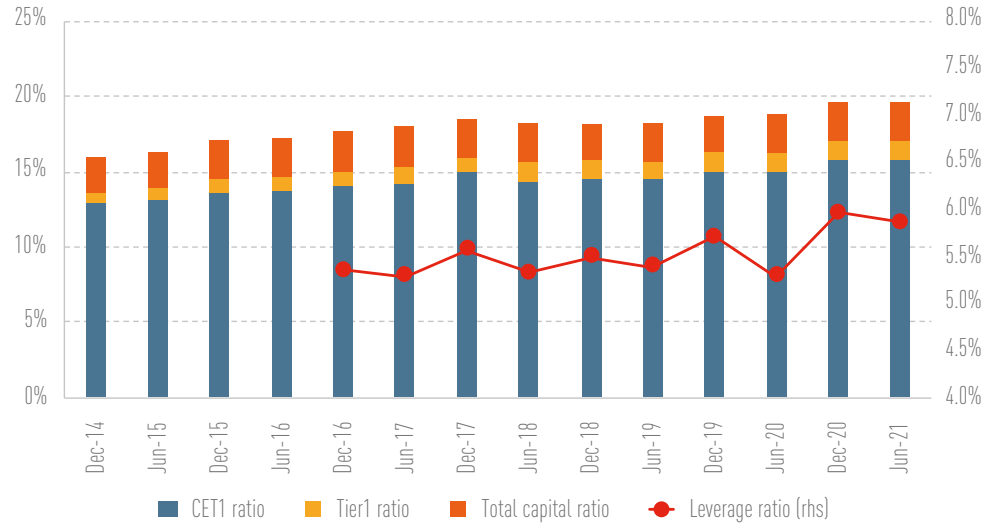
4. Capital

Capital ratios have continued to improve due to an increase in capital resources

EU/EEA banks increased their capital ratios in the past year. The better capital ratios are a result of an increase in capital resources, which were boosted by strong results in the first half of 2021. As of June 2021, the average CET1 ratio stood at 15.8% (15.5% on a fully loaded basis), an increase of almost 80 bps compared to June 2020. This increase is another significant improvement after the 60 bps increase observed between June 2019 and June 2020 ([60]). Banks' total capital ratio stood at 19.6% as of June 2021, an increase of more than 80 bps compared to June 2020. The AT1 component increased slightly in the past year (by 2 bps) and represented 1.3% of RWA as of June 2021. The T2 component remained unchanged compared to June 2020 and stood at 2.5% of RWA (Figure 64).

The leverage ratio has also increased by roughly 60 bps in the past year and stood at 5.9% as of June 2021. This was supported by the ECB decision allowing banks to exclude certain central bank exposures from the leverage ratio ([61]). This relief granted in September 2020[62] is set to expire by end March 2022. Most banks in the sample (84%) reported a ratio of at least 5% as of June 2021 and, given this, have a buffer of more than 200 bps above the minimum requirement of 3%. This minimum requirement became applicable for EU/EEA banks in June 2021, whereas the leverage ratio buffer requirement on G-SIIs will become applicable from 1 January 2023. Another 14% of the banks in the sample reported a buffer of between 100 and 200 bps, while 2% of the banks were within 100 bps of the minimum requirement (Figure 65).

Figure 64: Capital ratios (transitional definitions)
Source: Supervisory reporting data.

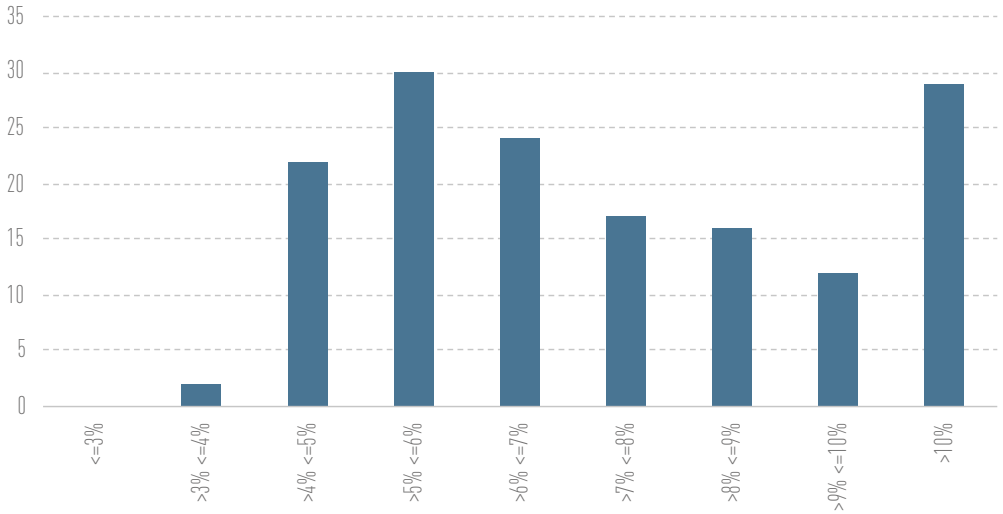


([60]) See last year's edition of the Risk Assessment Report.

([61]) According to the ECB, the exclusion improved banks' leverage ratios by 70 bps, based on Dec-2020 data (https://www.bankingsupervision.europa.eu/press/pr/date/2021/html/ssm.pr210618~6cae096a27.en.html).

([62]) The original relief was set to expire on 27 June 2021 but was extended in June 2021 to expire by end March 2022.

Figure 65: Leverage ratio (transitional definitions), number of banks per bucket, June 2021
Source: Supervisory reporting data.

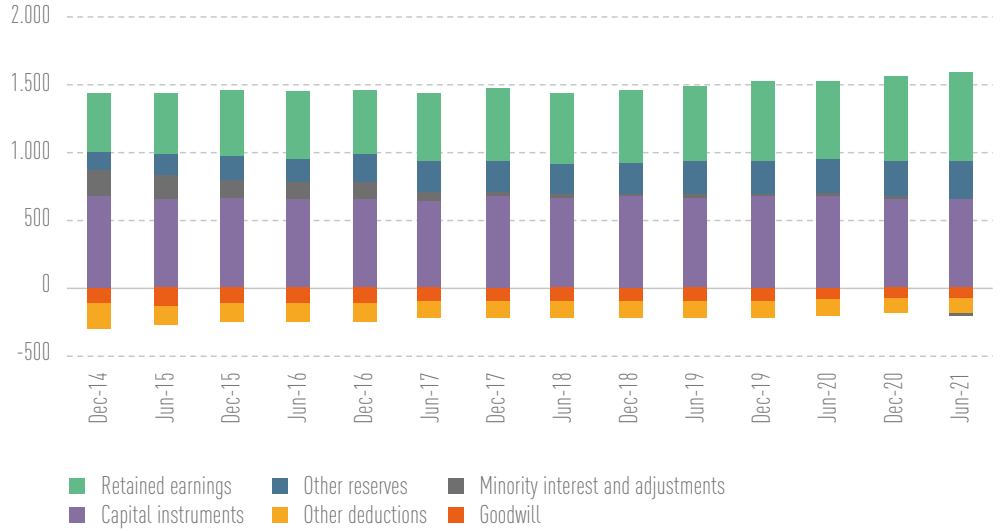


Retained earnings drove the increase in CET1 capital resources

The level of CET1 capital resources in June 2021 has increased by 6% compared to June 2020. The main driver behind the overall increase was a boost in retained earnings, which have increased by 10%, supported by solid results in the first half of 2021. Capital instruments, on the other hand, have continued the downward trend observed over the past years. The 1% reduction over the past year in those instruments, which consist of paid-in capital and share premiums, compares to a similar decline in the year before.

Reserves have also increased by 4% in the past year and, together with retained earnings, account for more than 60% of banks' capital resources. Despite the planned dividend pay-outs in 2021, the growth rates in retained earnings and reserves are similar to those reported one year earlier (5% for retained earnings and 9% for reserves) [63]. Goodwill and other deductions were 15% lower than their 2020 level and helped the overall increase in CET1 capital resources. The lower deduction in goodwill can be explained by goodwill impairments that were recognised by banks over the past year due to a revaluation of subsidiaries amid the economic impact of the pandemic (Figure 66).

Figure 66: CET1 capital components (EUR bn)
Source: Supervisory reporting data.



[63] The European Systemic Risk Board (ESRB) announced in September that the Recommendation on the restriction of distributions lapses at the end of September 2021. Other macroprudential and competent authorities made similar statement, such as for instance the ECB Banking Supervision deciding not to extend their dividend recommendation beyond September 2021.

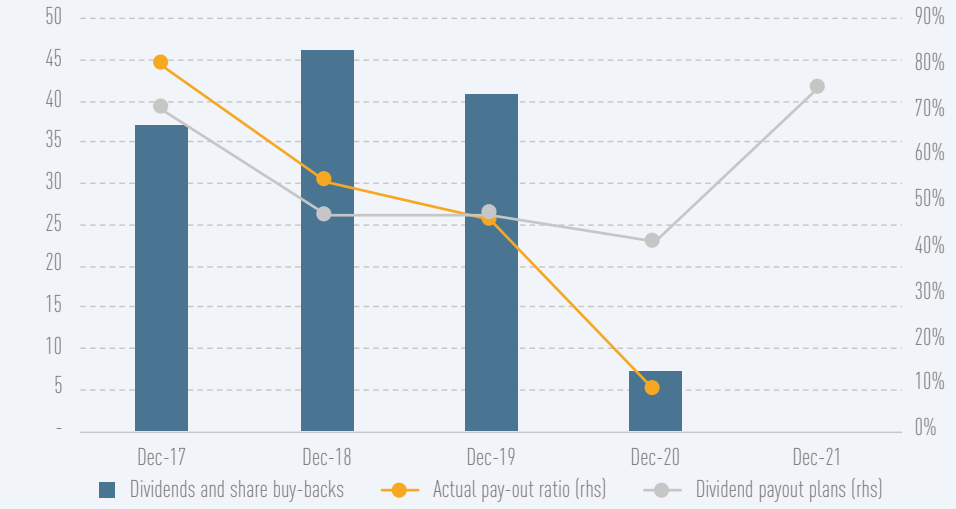
Box 8: Impact of recommendations on dividend payments

In March 2020, after the rapid spread of COVID-19 in Europe, several regulators and supervisors released statements and recommendations asking banks to refrain from distributing dividends and from share buy-backs aimed at remunerating shareholders for the financial years 2019 and 2020 ([64]). A key driver for these statements and recommendations was that such a measure would boost banks' capacity to absorb losses and support lending to households, small businesses, and corporates during the COVID-19 pandemic. Other authorities across Europe applied similar measures, effectively resulting in a concerted ban on shareholder remuneration. By the end of 2020 and driven by the reduced uncertainty in macroeconomic projections for 2021 and 2022, CAs adjusted their recommendations to allow banks to distribute a limited share of their dividends from 2019-2020 profits in the first nine months of 2021 ([65]).

The vast majority of banks across Europe adhered to the recommendations and refrained from remunerating shareholders from 2019 profits. Dividend payments and share buy-backs in 2020 amounted to less than EUR 8 bn, which represents a pay-out ratio of 9% based on banks' 2019 profits (Figure 67). This compares to an average pay-out ratio of 59% for the previous five years (2015 to 2019). The payments and share buy-backs that were made in 2020 were either completed before the publication of the above-mentioned recommendations or were due to other obligations not related to shareholder remuneration. These obligations include payments for AT1 instruments, in case they are considered as equity under IFRS, payments from subsidiaries to minority shareholders, market-making of own shares (trading treasury shares) and the purchase of own shares for employee pension schemes.

The impact of the recommendations is visible when comparing actual pay-out ratios with banks' plans for dividend distributions, as set at the beginning of each year ([66]). While for previous years, banks' plans more or less coincided with actual pay-outs, for 2020, the gap between banks' plans and actual pay-outs was about EUR 29 bn or 35% of 2019 profits (Figure 67). In 2021, many banks expect to make up for deferred dividend payments in 2020. Most payments will presumably be made in the last quarter of 2021, given that most recommendations on dividend distribution limits expired at the end of the third quarter and many banks have announced additional dividend payments during the remainder of 2021 or 2022 relating to 2019 and 2020 results ([67]).

Figure 67: Dividends and share buy-backs (EUR bn)
Source: Supervisory reporting data.



([64]) Statements and recommendations included those from the EBA in on 12 March and 31 March 2020, as well those from the ECB Banking Supervision on 27 March 2020 and the ESRB from 26 May 2020. They were followed by prolongations of the measure in the following months.

([65]) ECB Banking Supervision for instance asked banks to limit dividend payments to below 15% of accumulated 2019-2020 profits and no higher than 20 bps of CET1 ratio.

([66]) These plans are reported by banks via supervisory reporting as the part of year-end profits that are not included in CET1 capital as retained earnings.

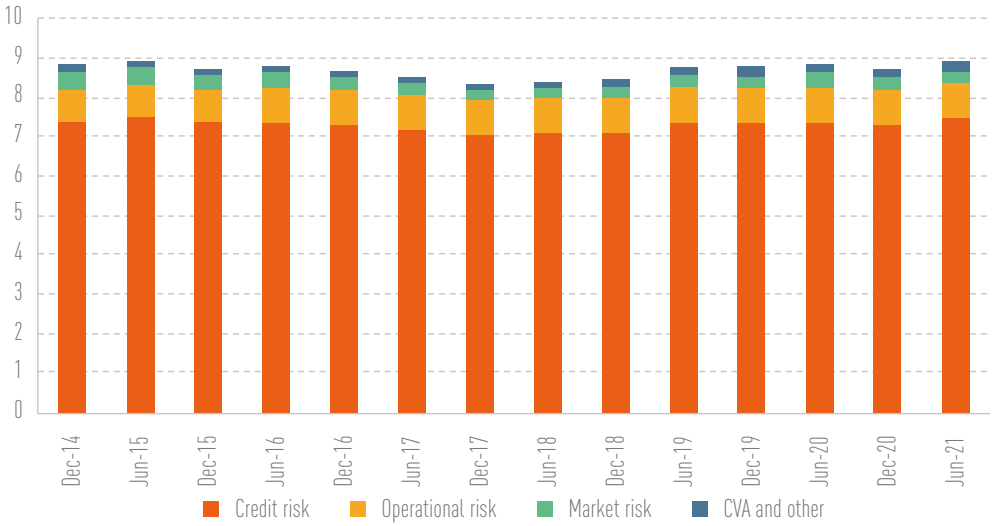
([67]) See footnote on the end of the dividend bans and similar measures.

RWA increase driven by growing lending volumes

EU/EEA banks' RWA increased by 0.5% compared with June 2020. Credit risk, which makes up more than 80% of total RWA, increased by 1.3% in the past year. This compares with a growth in total assets of 2% and a decline of -1% for loans and advances. The partial decoupling of RWA trends from those in assets is presumably the result of a change in the composition of banks' assets and various measures introduced in the wake of the COVID-19 pandemic that affected the calculation of RWA. As pointed out in Chapter 2.1, the growth in assets was fuelled by a significant rise in cash balances and central bank reserves, which are treated as risk-free in RWA calculations.

In addition, public guarantees granted to secure the flow of credit to the corporate sector reduced the RWA further, either via substituting the risk weight (RW) of the borrower with that of the guarantor or via lower LGDs resulting from additional guarantees that reduce the amount of losses to be borne by banks. Finally, yet importantly, measures such as the changes to the SME-supporting factor or the new infrastructure-supporting factor also resulted in a reduction of RWA ([68]). Operational risk, the second most important RWA component representing around 10% of total RWA, has decreased by 1.8% since June 2020. Market risk has also contributed to the RWA deflation and decreased significantly by almost 15% (Figure 68).

Figure 68: RWA by type of risk (EUR tn)
Source: Supervisory reporting data.



Detailed data on credit risk shows diverging trends for different exposure classes. RWA for central governments declined by 1.7%, for retail mortgages by 0.1%, and for other retail exposures by 0.2%. On the other hand, RWA increased for corporate exposures by 0.6% and for exposures to institutions by 1.8%. The overall RWA increase was mainly driven by corporate exposures, given their share of 52% of total credit risk RWA. A migration to the SME segment within retail exposures, incentivised by the revised SME-supporting factor, as well as PGS, may have contributed to the decline in RWA for this exposure class (on volume trends of these exposures classes as well as PGS see Chapters 2.1 and Box 4).

In contrast to the slight rise of RWA, total credit risk exposure has increased substantially since June 2020 (5%). The increase was driven by exposures to central governments and central banks, which surged by 19% in the past year, and by mortgage exposures, which increased by 5%. The latter is particularly striking, as it came in contrast to the RWA decline for these exposures (more details on drivers for RWA changes are analysed in the following paragraph). Other retail exposures remained unchanged over the same period, while exposures to corporates and institutions declined by 1% and 7% respectively. Excluding exposures to central governments and central banks, which are generally risk-weighted at zero, banks' credit risk exposure has remained unchanged since June 2020 (Figure 69).

([68]) These changes to the calculation of capital requirements were introduced by EU legislators as part of REGULATION (EU) 2020/873, which has been applicable since June 2020.

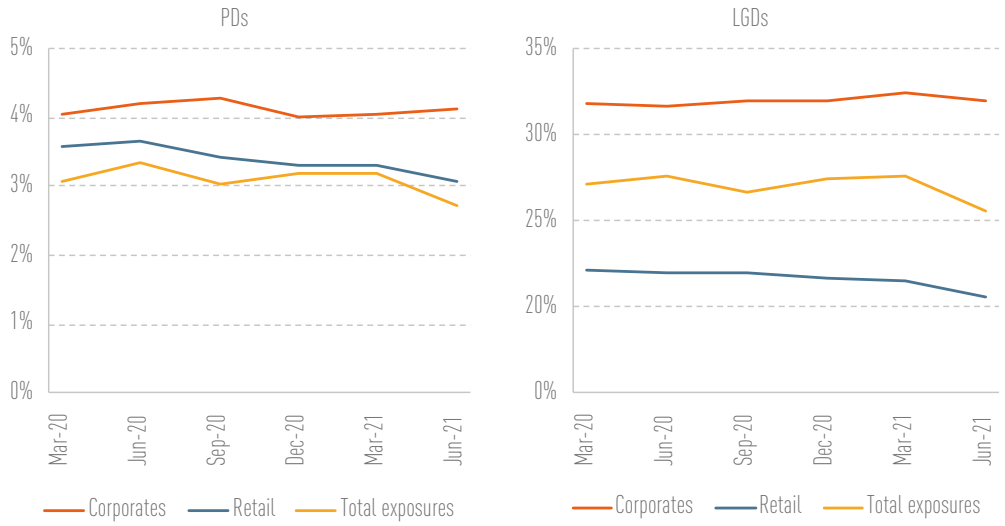
Figure 69: Credit risk exposures (left) and RWA (right) for selected exposure classes, excluding e.g. securitisation and equity (EUR tn)
Source: Supervisory reporting data.

Beyond the increasing share of central bank exposures, changes in the parameters used to calculate capital requirements for banks with internal models also contributed to soften the rise in RWA despite the substantial increase in exposure volumes. Driven by retail exposures, the average probability of default (PD) for total IRB exposures has declined by 63 bps since June 2020 and stood at 2.72% in June 2021. The average PD for retail exposures declined by 57 bps and stood at 3.06% in June 2021. The decline in the PD for corporate exposures was comparatively weak (-5 bps in the last year) and the average PD stood at 4.13% as of June 2021.

Reasons for contracting PDs might include shifts in portfolio composition (e.g. higher share of exposures to governments and central banks) and the support measures implemented amid the pandemic, which presumably also contributed to the reduction of new defaults across the board during the last year. The decline in PDs comes in parallel to a contracting trend of new default rates for large parts of EU/EEA banks' exposures, especially in IRB portfolios in which there has been a significant decrease in new default rates compared to June 2020, yet certain EME exposures were exceptions (see Box 5). The trends during the past year in new defaults comes in addition to positive economic trends in the years ahead of the pandemic, which might have contributed to lower PDs.

As for the Loss Given Default (LGD), a similar trend could be observed in the past year for banks' total IRB portfolios, with the average LGD declining by 199 bps to 25.58%. The overall LGD trend was driven by retail exposures, which declined by 148 bps, and reached an average of 20.47% in June 2021. The LGD for corporate exposures, on the other hand, remained rather stable with a slight increase (21 bps) observed in the year since June 2020 and stood at 31.95% in June 2021. The drop in LGD in the retail portfolio might be explained by increasing house prices, for instance (see on the latter Chapter 1).

Figure 70: IRB parameters PD and LGD
Source: Supervisory reporting data.

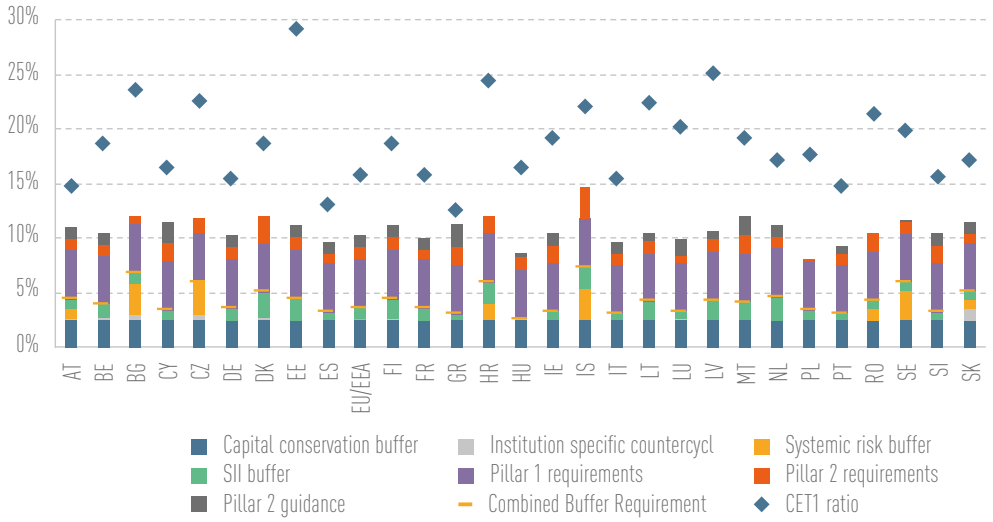


Banks have continued to improve their cushion above capital requirements

Overall CET1 capital requirements, excluding the AT1 and T2 shortfalls to be covered with CET1, decreased in the past year and stood at 9.21% of RWAs in June 2021 (9.25% in June 2020). While Pillar 1 CET1 requirements remained set at 4.5% according to the primary legislation, Pillar 2 CET1 requirements have declined by 5 bps since June 2020 and stood at 1.1% in June 2021. Compared to June 2019, the decline was 71 bps, mainly due to the decision by ECB Banking Supervision to allow banks to cover Pillar 2 requirements with capital instruments other than CET1. In contrast to Pillar 2 requirements, Pillar 2 Guidance has increased by 11 bps in the past year and stood at 1.02% of RWA in June 2021.

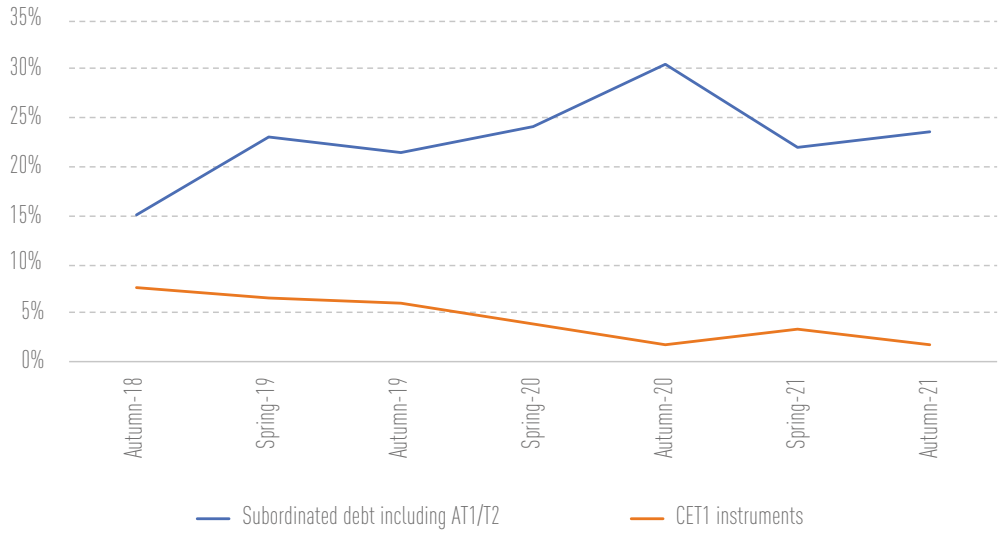
In addition to Pillar 1 and Pillar 2 requirements, banks are also required to hold capital buffers to guard against systemic or other risks in the banking sector. On average, the combined buffer requirement in June 2021 stood at 3.64% of RWA and remained almost unchanged compared to June 2020. While the capital conservation buffer (CCB) remained set at 2.5 % of RWA according to the primary legislation, the buffers for G-SIIs and Other Systemically Important Institutions (O-SIIs) represented 0.99% of RWA, the systemic risk buffer 0.11% of RWA and the countercyclical capital buffer 0.03% of RWA (Figure 71).

Figure 71: CET1 capital requirements by country (in % of RWA), June 2021
Source: Supervisory reporting data.



Lower capital requirements combined with increased capital positions (see Figure 71) mean that banks are in a better position to absorb losses before reaching their overall capital requirements (OCR) ([69]). This is reflected in banks' plans to issue CET1 instruments in the near future. Based on the RAQ results, only 2% of banks envisage issuing CET1 instruments in the following 12 months – the same low level as reported by banks in their autumn 2020 responses. As regards other capital instruments, 24% of banks plan to issue AT1 and Tier 2 debt instruments in the year ahead. This compares to a share of 31% expressed by banks a year ago (Figure 72).

Figure 72: Percentage of banks that intend to issue instruments in the next 12 months
Source: RAQ for banks.

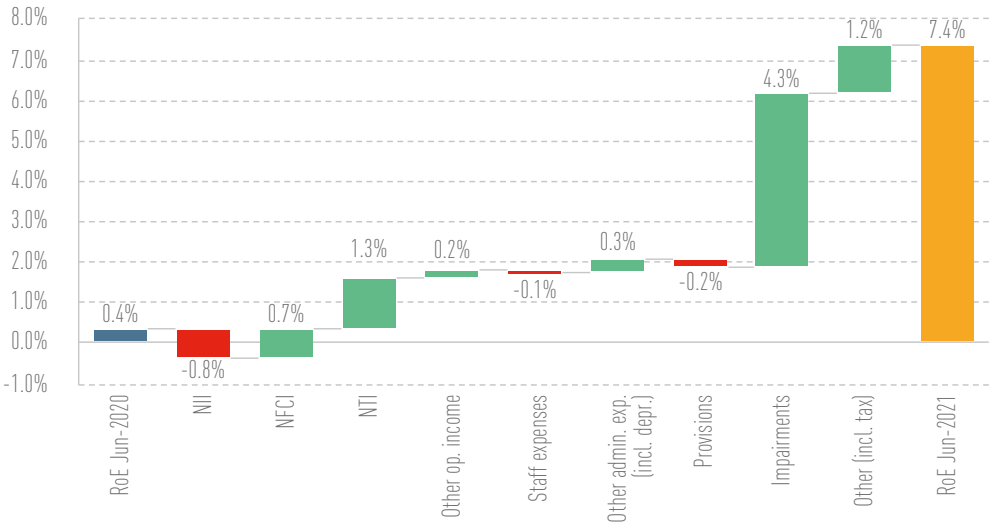


([69]) Going below OCR levels would trigger the application of rules on the maximum distributable amount (MDA).

5. Profitability

The RoE of EU/EEA banks was back to pre-pandemic levels in 2021. As of June 2021, the average RoE stood at 7.4%, which is an increase of 7 p.p. compared to the levels observed a year before (0.4%). The recovery was driven mainly by the decrease in impairments and, to a lesser extent, by an increase in net trading income (NTI). Other non-recurrent items such as profit from negative goodwill or from non-current assets (included under 'Other (incl. tax)' in the chart below) also played an important role (Figure 73).

Figure 73: Contribution to the RoE of the main P&L items, calculated as a ratio to total equity (2020-2021)
Source: Supervisory reporting data.



Despite this significant improvement, only half of the banks responding to the latest RAQ for banks answered that their RoE was above their estimated CoE. In relation to the latter, three quarters of the RAQ respondents reported a CoE above 8%.

Poor profitability is also reflected in low market valuations. Despite the rally in equity markets since April 2020 (see Chapter 1), listed European banks are still trading below their book values (0.6x for European banks vs 1.4x for US banks). Low profitability implies a double risk. On the one hand, since profits are the first line of defence against losses, banks with low operating profits might be in a worse position to withstand a shock. On the other, should a capital increase be necessary, this would be very expensive in terms of shareholder dilution for those banks whose market valuations are poor.

Box 9: RoE by business model

According to their activities, EU banks can be grouped in different categories. For the purpose of a business model-based analysis of banks' profitability, 112 reporting banks were classified into the following seven categories:

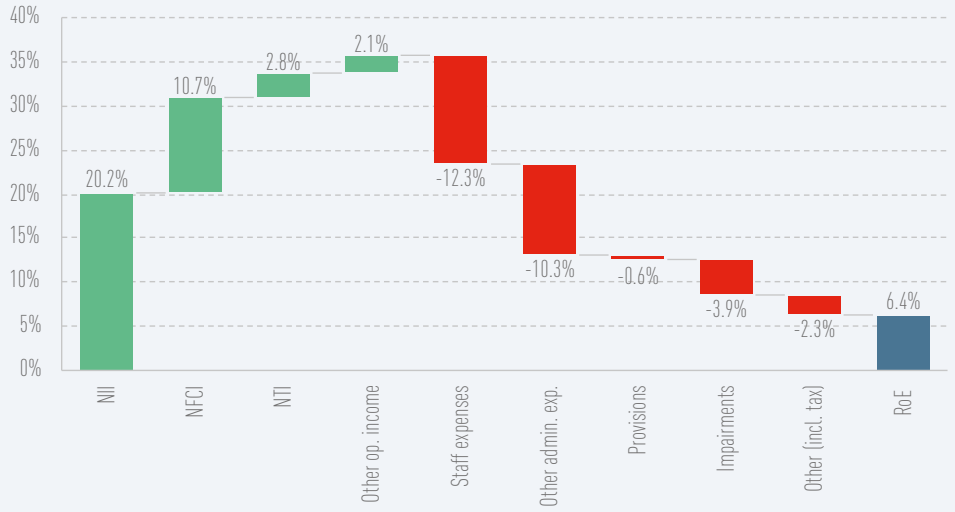
- Consumer/auto (two banks), i.e., institutions focused on originating and servicing consumer loans to retail clients.
- Corporate-oriented (five banks), i.e., institutions specialised in financing domestic and international trade focussed on products such as letters of credit, bank guarantees, and collection and discounting of bills.
- Cross-border universal (26 banks), i.e., institutions engaged in several banking activities including retail, corporate and capital market operations, with major cross-border operations.
- Local universal (59 banks), i.e., institutions engaged in several banking activities including retail, corporate and capital market operations but operating predominantly in their domestic market.
- Pass-through (three banks), i.e., institutions specialised in originating and servicing mortgage loans.
- Public (five banks), i.e., institutions financing public sector projects or providing promotional credit or municipal loans.
- Other (12 banks).

The following analysis focuses on the two largest groups, i.e., cross-border and local universal banks. Between December 2014 and June 2021, the average RoE of cross-border universal banks has been 6.4% vs 5.3% of local universal banks. Nonetheless, during the pandemic, local universal banks experienced a lower profitability decline (Figure 74). These trends might be due to the composition of revenues, for instance, but also linked to, for example, the stickiness of operational expenses or different impairment costs.

Figure 74: Evolution of the RoE by business model over time
Source: EBA supervisory reporting data.

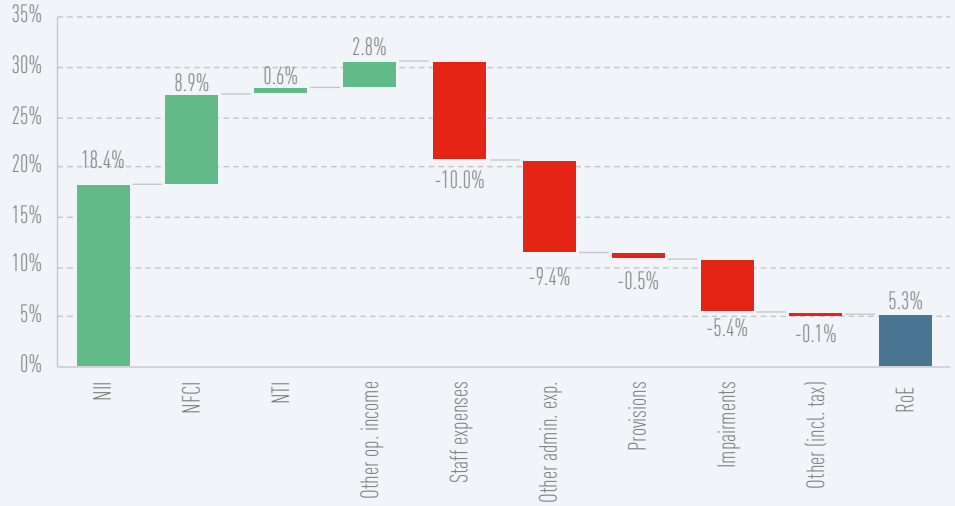
On the revenue side, from December 2014 to June 2021, cross-border universal banks showed greater net interest income (NII) as a percentage of total equity. These banks might have benefitted from the higher interest rates in non-EU/EEA jurisdictions.

Figure 75: RoE composition of cross-border universal banks (average from December 2014 to June 2021)
Source: EBA supervisory reporting data.



Cross-border universal banks also show higher NFCI and NTI. As some of these banks are large investment banks or count on important investment bank divisions, their capacity to generate fee and trading income might be higher than that of their local universal peers. For the latter, the contribution of NFCI to RoE has been on average below 9 p.p. for the period comprised between 2014 and 2021. This might be because some of these banks are focussed on a very concrete business area and as such are presumably less engaged in cross-selling practices.

Figure 76: RoE composition of local universal banks (average from December 2014 to June 2021)
Source: EBA supervisory reporting data.



Operating expenses are higher for cross-border universal banks. Although banking activity provides for certain economies of scale, these are less relevant when it comes to operating in several jurisdictions with, for example, different regulatory requirements or where there is the need to maintain a certain branch network.

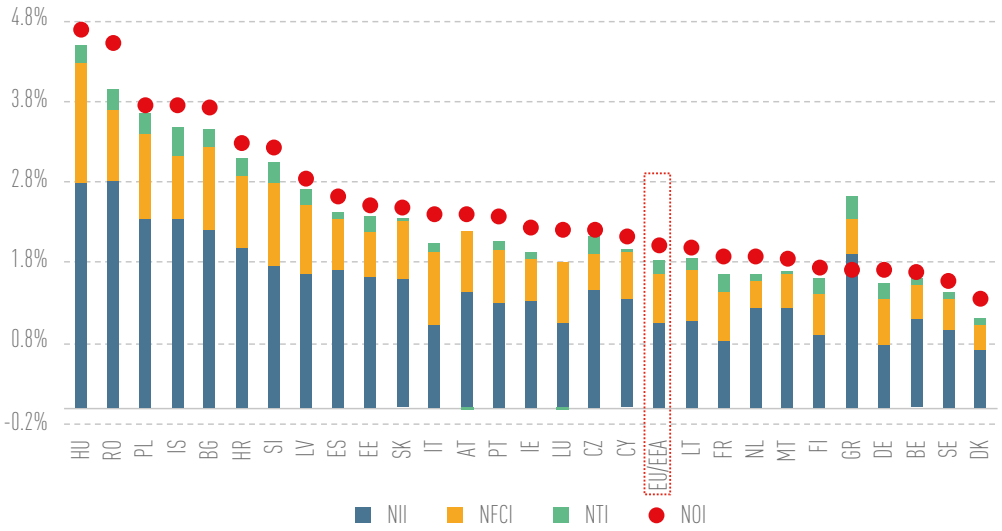
Local universal banks tend to have higher impairment costs. As they are less diversified than cross-border institutions, in the period comprised between 2014 and 2021, they might have been more exposed to the macroeconomic underperformance of the EU/EEA compared to other economies. Between December 2014 and December 2019, impairment costs reached on average 5.4% of equity for local universal banks and 3.6% for their cross-border peers. Since March 2020, the difference between the two types of banks has narrowed, reaching 5.6% for local and 4.8% for cross-border universal banks, which might, for instance, be due to the higher impact of the pandemic in EME countries.

Pressure in NII has been offset by other revenue areas

Banks' NOI increased by 6.9% YoY driven mainly by NFCI and NTI. In contrast, NII which accounts for the largest share of NOI, continued its decreasing trend. As a percentage of total assets, NOI went up slightly (+8 bps) over the past year to 1.92%. Since 2020 figures were particularly hit by the pandemic, it might be helpful to look at the ratio in June 2019 to have a more comprehensive picture. In this case, the ratio is still 12 bps below, which implies that banks' revenues have not yet recovered to pre-pandemic levels.

As in previous years, NOI as a percentage of total assets was particularly high for CEE banks, where central bank rates tend to be higher. In contrast, in Denmark and Sweden as well as in some euro area countries which are more affected by the low and negative interest rate environment, NOI is particularly low. Greek banks are among those with lower NOI mainly due to some large NPL transactions whose related losses were also registered as losses on the derecognition of financial assets (Figure 77, on the NPL disposals see Chapter 2.2).

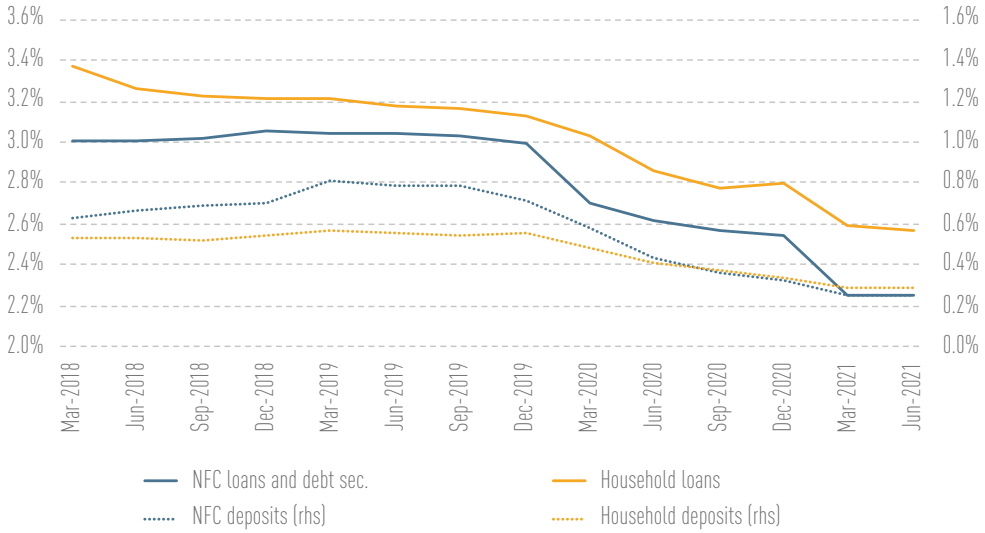
Figure 77: NOI as a percentage of total assets, June 2021
Source: Supervisory reporting data.



NII remained under pressure and fell by 2.3% over the past year. In June 2021 it was equivalent to 1.06% of total assets, compared with 1.11% in June 2020 and 1.20% in June 2019. Even though interest earning assets grew by 4.2% from June 2020 to June 2021, the growth was mostly driven by cash balances at central banks (see Chapter 2.1) which offer low or even negative yields. Moreover, the average net interest margin (NIM) fell 10 bps in 2021 to 1.24%. Besides the general environment of low and negative interest rates, there are some additional explanatory factors. A large share of the amounts that banks have borrowed from central banks have ended up as deposit facilities with the same central banks. For instance, euro area banks have taken significant amounts of TLTRO funding from the ECB at a rate which ranges from -0.5% to -1%, while the ECB deposit facility offers a -0.5% rate. Despite the positive carry-trade of these operations, the margins obtained are still below the average NIM.

PGS lending schemes that governments set up during the pandemic might have accelerated the decline in the NFC lending rate (on PGS see Box 4). In December 2019, the average rate of banks' loans and debt securities to NFCs was 2.99% (6 bps below the level observed in December 2018). In the first half of 2020, the declining trend accelerated, and the average rate fell to 2.62%. This trend continued in 2021 and, in June 2021, the average lending rate to NFCs was 2.26%. The average rate of household lending was also affected by the pandemic. While in December 2019 the average rate was 3.12% (9 bps below the level observed in December 2018), in June 2020, the average lending rate to NFCs was at 2.86% before falling further to 2.57% in June 2021 (Figure 78).

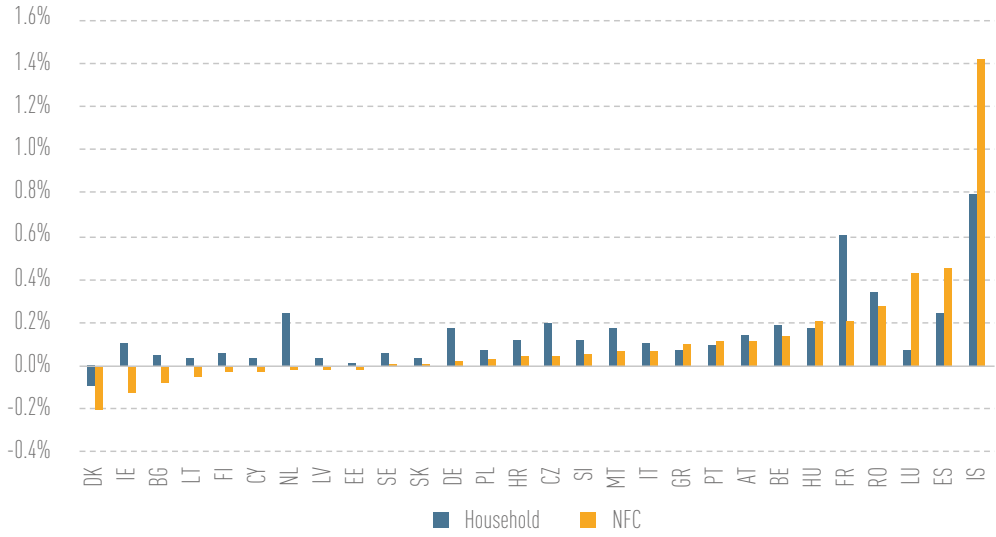
Figure 78: Evolution of NFC and household lending and deposit rates
Source: Supervisory reporting data.



The declining trend in deposit rates has also accelerated. According to the RAQ results, a rising share of banks are applying negative rates to a growing part of their client deposits. The share of banks that reported the application of negative rates was 15% (+5 p.p. YoY) for household deposits and 61% for NFC deposits (+10 p.p. YoY) (Figure 91). Nonetheless, these declines are still more moderate than for lending rates. The average household deposit rate has gone from 0.55% in December 2019 to 0.29% in June 2021. The decrease in NFC deposit rates has been more significant (from 0.71% to 0.26% over the same period) (Figure 78).

Several countries already show an average negative deposit rate for NFCs. These rates are particularly low in Denmark and Ireland. In contrast, NFC deposit rates are comparatively high in Spain and Iceland. As regards household deposits, average negative rates are only observed in Denmark. On the opposite side, deposit rates for households are the highest in France and Iceland (Figure 79).

Figure 79: NFC and household deposit rate by countries, June 2021
Source: Supervisory reporting data.

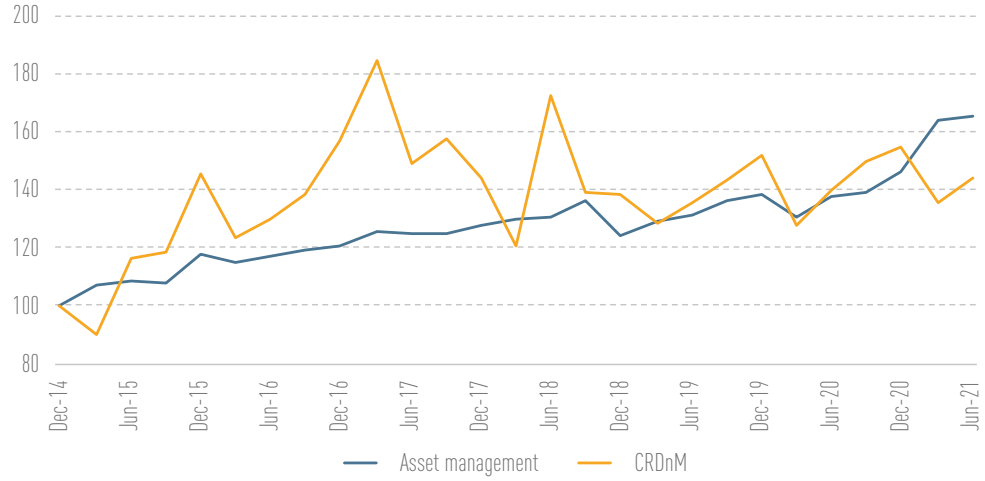


In contrast to NII, NFCI has shown a strong performance during last year (+10.1% YoY) with most of the increase taking place in the first half of 2021. As a percentage of total assets, NFCI has grown from 0.57% to 0.61%. As a share of total NOI, NFCI is particularly relevant for banks from Germany, France, and Italy. Nonetheless, banks from Bulgaria, Poland and Hungary show the highest ratio of NFCI to total assets (Figure 77).

As in previous years, payment services continue to be the main source of fee income (23.7%). They are followed by asset man-

agement (20.9%) and customer resources distributed but not managed (CRDnM) (15.3%). Although the increase in income from payment services has not been negligible (2.3%), the rise in the revenue generated by the other two areas has been more notable (30.2% for asset management and 11.8% for CRDnM). These activities might have benefited from a shift of clients' deposits towards products offering better return prospects. Although there might be a valuation effect, the increase over the past few years in the volume of AuM is noteworthy (Figure 80).

Figure 80: Evolution of AuM
Source: Supervisory reporting data.

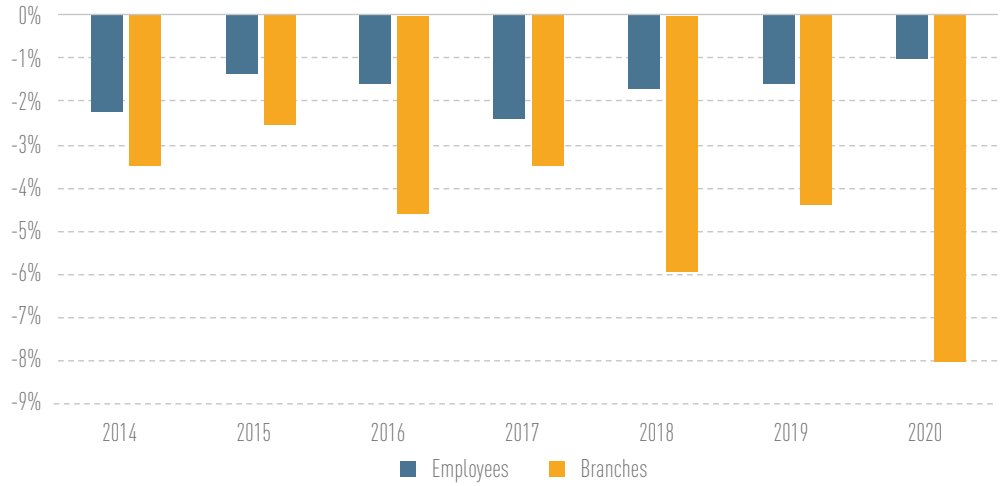


NTI (including results from assets at fair value through profit and loss) benefited from the performance of financial markets since spring 2020 and more than doubled in 2021 (+118.5% YoY). As a result, the ratio of NTI to total assets went up from 0.07% to 0.15% over the past year. Given the volatility of this P&L item, the RoE of banks in Greece, Finland, and France, for which NTI represented a high share of its NOI in 2021, might be very sensitive to an abrupt correction in financial markets.

The fall in operating expenses has halted

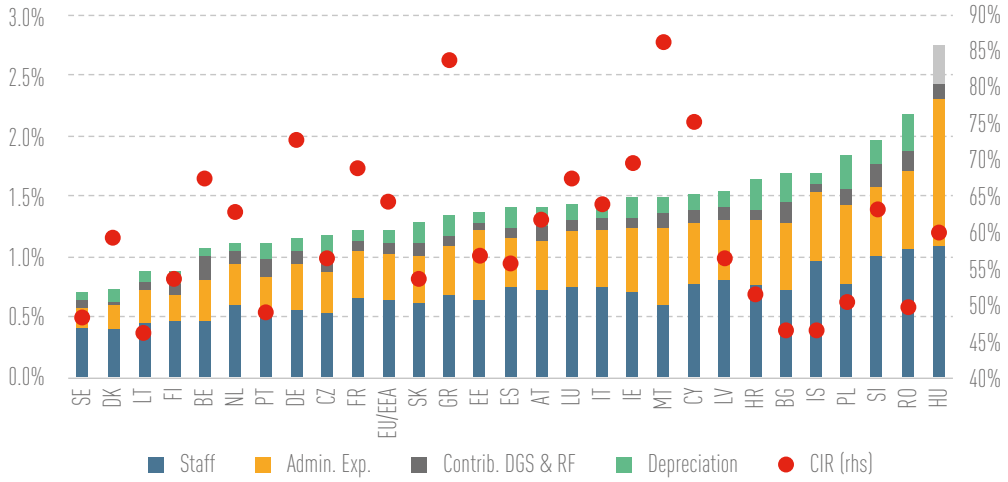
New working conditions imposed by the pandemic allowed banks to accelerate the reduction of their physical branch networks. While from 2014 to 2019 banks in the EU reduced their physical branches at an average annual pace of approx. 4%, the decline reached 8% in 2020. Nonetheless, the reduction of staff was more contained in 2020 (-1%) than in previous years (-1.8% annually from 2014 to 2019), as banks might have partially substituted outright payroll cuts with subsidised furlough schemes (Figure 81). Against this backdrop, operating expenses declined substantially in 2020. However, some doubts remain as to whether these cost reductions are of a permanent nature or, on the contrary, they could bounce back once normal working conditions resume.

Figure 81: Annual variation in the number of bank branches and employees
Source: ECB Statistical Data Warehouse.



Operating expenses increased by 2.1% YoY (June 2020 to June 2021), but they remained stable as a percentage of total assets (1.23%). By countries, those that presented the highest ratio of NOI to total assets are also among the ones with the highest ratio of operating expenses to total assets. On the other side, Nordic countries and Lithuania had a ratio of operating expenses to total assets below 1% (Figure 82). Nonetheless, when off-balance sheet AuM are also considered in the denominator, operating expenses dropped slightly from 0.46% in 2020 to 0.43% in 2021. According to this ratio, countries with a more developed asset management industry such as Ireland or Luxembourg appear amidst the top performers.

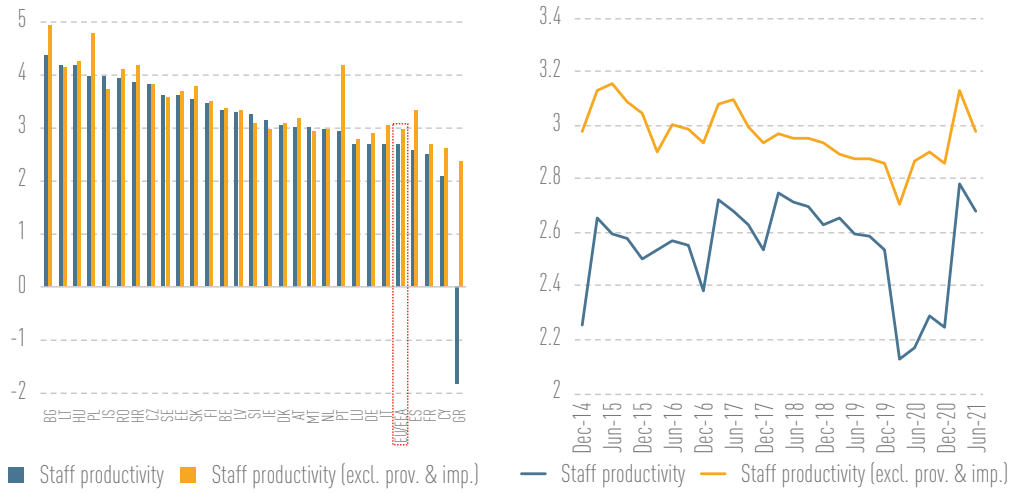
Figure 82: Operating expenses as percentage of total assets and CIR, June 2021
Source: Supervisory reporting.



The cost to income ratio (CIR) fell from 67% to 64% driven by a higher increase in NOI than in operating expenses. According to this indicator, the most efficient banks are widely spread across the EU/EEA. Banks from Bulgaria, Iceland, and Lithuania, for example, present an average CIR below 50%, whereas banks from Cyprus, Germany, Greece, and Malta show an average CIR above 70%.

The increase in staff productivity has been driven mainly by impairment reductions. Between June 2020 to June 2021, staff productivity (measured as NOI minus provisions and impairments generated by each euro of staff expenses) had risen by more than 20% to EUR 2.68. However, when provisions and impairments are excluded, the increase is just 4.3%. Similarly, the increases in staff productivity since 2014 (+18.7%) are negligible when provisions and impairments are not considered (0%). By countries, staff productivity is higher in CEE countries where official interest rates are higher. Among low interest rate jurisdictions, Lithuanian and Swedish banks show the highest staff productivity, possibly because of a greater use of digital banking in these countries (Figure 83).

Figure 83: Staff productivity by country (June 2021; left) and evolution of staff productivity (right)
Source: Supervisory reporting data.



Impairments for credit risk have returned to pre-pandemic levels

Impairments for credit risk ([70]) fell by more than 60% in 2021 and returned to pre-pandemic levels after the sharp increase registered in 2020. While in 2020 impairments represented 0.41% of total assets, in 2021 this figure dropped to 0.15% (0.17% in 2019). Only Greek banks, which carried out several major NPL disposals and securitisations, suffered an increase in impairments compared to the previous year (see on the NPL disposals Chapter 2.2). In contrast, banks from countries such as Iceland, Slovenia and Ireland even registered important reversals of impairments. Banks from Ireland are amongst those that booked the largest impairment costs in 2020.

The cost of risk (CoR) ([71]) is back to pre-crisis levels. After reaching a maximum of 0.86% in June 2020, the CoR has fallen and currently stands at 0.51%, which is roughly the average level observed in 2018 and 2019. Although the decrease has been driven by a parallel reduction in impairments for all IFRS 9 impairment stages, only impairments for stage 1 loans (0.04%) are below the pre-pandemic average (0.07%). Impairments of stage 2 and stage 3 loans stand at 0.85% (vs a pre-pandemic average of 0.70%) and 13.2% (vs a pre-pandemic average of 9.9%) respectively.

Figure 84: Accumulated impairments (2020 and 2021) and impairments (2021) as percentage of total assets ([72])
Source: Supervisory reporting data.

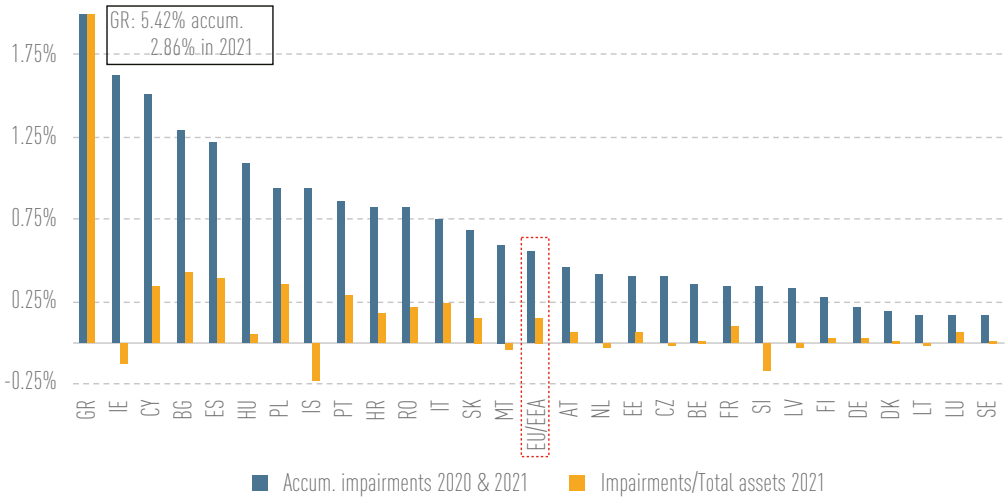
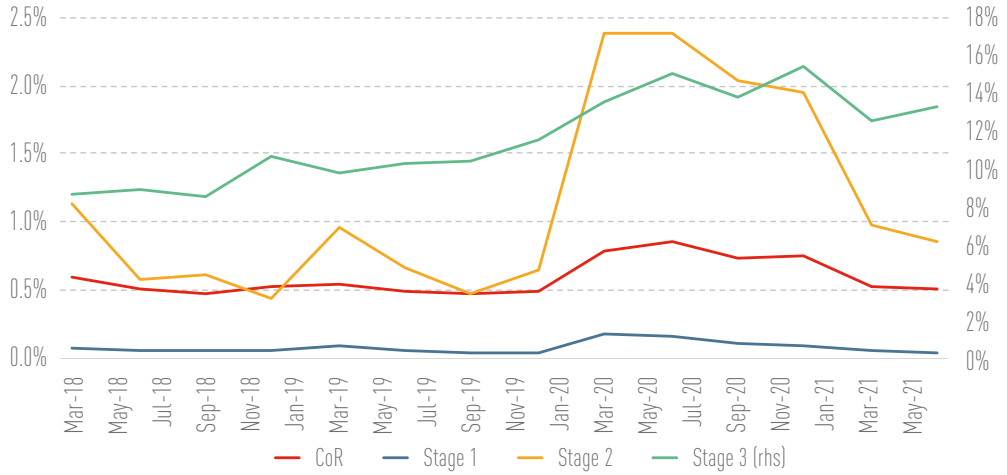


Figure 85: CoR by IFRS 9 stages
Source: Supervisory reporting data.



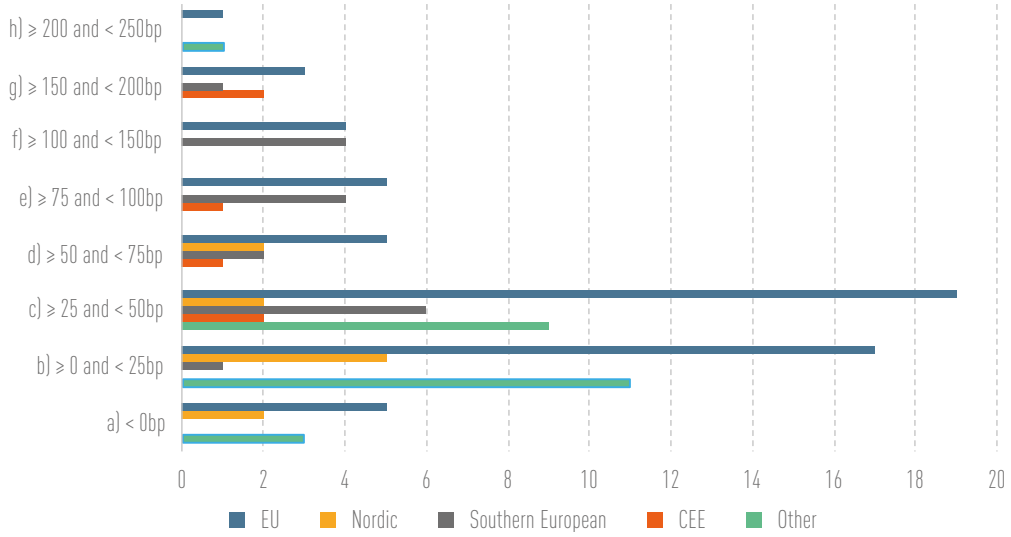
([70]) Impairments include all impairment gains or losses for financial assets not measured at fair value through profit or loss including the impairment gains or losses for trade receivables, contract assets and lease receivables. Impairments also include the amounts written off that exceed the amount of the loss allowance at the date of write-off and are therefore recognised as a loss directly in profit or loss, as well as recoveries of previously written-off amounts recorded directly to the statement of profit or loss.

([71]) The CoR is defined as the change in allowances and provisions as a ratio of total loans and advances subject to impairment.

([72]) Accumulated impairments are calculated as the sum of the ratio of impairments to total assets in 2020 and in 2021.

CoR is sometimes mentioned as an area in which banks might gain (short-term) benefits. 70% of the banks responding to the RAQ expect it to be below 50 bps in 2021. However, some of these banks are reversing the impairments booked in 2020 or are recognising only minor impairments after suffering huge impairment costs in 2020. Thus, going forward – and assuming no major additional shocks – the CoR of EU banks might rather stabilise at their pre-pandemic levels, which correspond to levels observed in June 2021. Therefore, no major improvements via lower impairments might be assumed in the medium term.

Figure 86: CoR estimations by region [73]
Source: RAQ for banks.



[73] Central and Eastern European includes banks from Bulgaria, Hungary, Poland, and Romania; Nordic includes banks from Denmark, Estonia, Finland, Iceland, Norway, and Sweden; Other includes banks from Austria, Belgium, Germany, France, Ireland, Luxembourg, and Netherlands; and Southern European includes banks from Cyprus, Spain, Greece, Italy, Malta and Portugal.

Box 10: Differences in provisioning practices in the US and the EU [74]

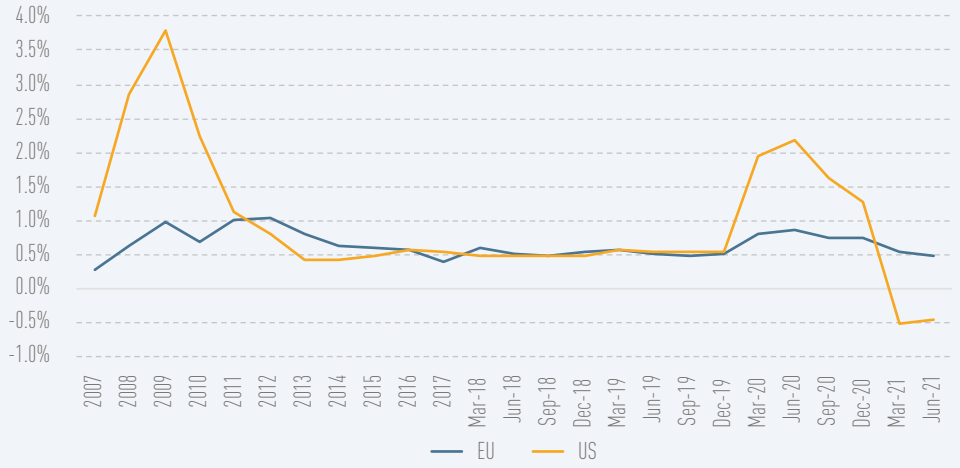
In periods of stability, there are no substantial differences in the CoR of US and EU/EEA banks. However, during crisis periods, the CoR of the former tends to rise much faster than that of the latter. Although the COVID-19 pandemic has so far not translated into increasing volumes of NPLs, some early indications of asset quality deterioration could be observed such as increasing volumes of FBLs, a rising share of loans classified as stage 2 loans or a material increase in CoR (see also Chapter 2.2). In relation to the latter, substantial differences were observed not only across banks and countries but also across regions, such as the EU/EEA and US [75]. Nonetheless, it is also worth noting that, historically, the CoR has been more volatile in the US than in the EU/EEA [76] (Figure 87).

[74] For a detailed discussion on the topic, see EBA thematic note on differences in provisioning practices in the United States and the European Union, May 2021

[75] For the US, the data is taken from the Quarterly Trends for Consolidated U.S. Banking Organizations of the Federal Reserve of New York (Fed), which uses consolidated financial data across all reporting US parent bank holding companies and intermediate holding companies, and individual banks not controlled by a bank holding company, or whose parent bank holding company does not report on a consolidated basis. The data excludes savings bank holding companies, and branches and agencies of foreign banks.

[76] For the purposes of this textbox, the data on loan loss provisions provided by the Fed (annualised following the same approach of other EBA publications such as the Risk Assessment Report or the Risk Dashboard) is taken as the CoR for US banks. On grounds of comparability with US data, for EU banks, the CoR figures provided in this note exclude the amounts written off directly to the statement of profit or loss. Thus, they could differ from the CoR figures provided in other EBA publications such as the Risk Dashboard or the Risk Assessment Report.

Figure 87: CoR in the US and in the EU/EEA
Source: Quarterly Trends for Consolidated U.S. Banking Organizations, NY Fed; Statistical Data Warehouse (SDW), European Central Bank (ECB); and EBA supervisory reporting data. EU data from 2007 to 2017 is based on SDW data.

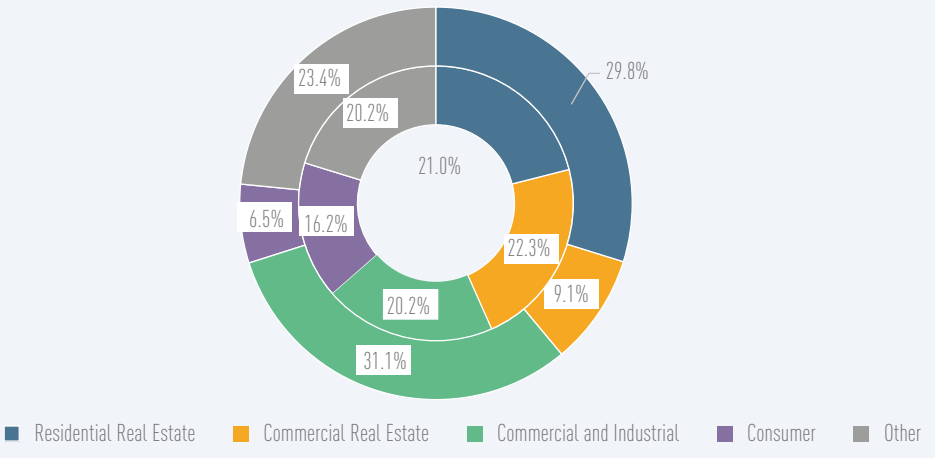


Banks recognised increased amounts of expected credit losses (ECL) [77] amid the outbreak of the pandemic. Even though, the CoR of EU/EEA rose substantially, banks in the US reported CoR levels more than twice those of their European peers (1.96% vs 0.80% in the first quarter of 2020 and 2.17% vs 0.86% in the second).

After peaking in June 2020, ECL fell in the third quarter of the year as confinement measures were gradually lifted and economic forecasts improved amidst COVID-19 vaccine announcements. This decrease was more pronounced in the US than in the EU/EEA. By the end of 2020, the CoR of EU/EEA banks reached 0.75%, whereas it fell to 1.27% for US banks. In the first half of 2021, EU banks reported CoR of 0.48%, similar to pre-pandemic levels. In contrast, US banks released substantial amounts of accumulated impairments in 2021 and their CoR stood at -0.46% as of June 2021.

There are several factors that might explain the observed differences between US and EU/EEA banks. First, despite the global character of the pandemic, its impact has not been uniform. The initial higher increase in unemployment in the US and the faster economic recovery might explain some of the sharp reaction of the CoR of US banks in the early stages of the pandemic and its rapid fall afterwards. In addition, riskier loan categories such as consumer credit or CRE tend to have a higher share in the loan book of US institutions than for EU banks. This might also explain why the CoR of US banks tends to rise more sharply at the onset of crisis episodes (Figure 88).

Figure 88: Loan share composition in the EU/EEA (outer circle) and the US (inner circle) (June 2021)
Source: Quarterly Trends for Consolidated U.S. Banking Organizations, NY Fed; and supervisory reporting data. For the EU, Commercial and Industrial loans are estimated as loans to NFCs excluding CRE exposures.



[77] IFRS 9 ECL for EU/EEA banks and lifetime ECL for US banks.

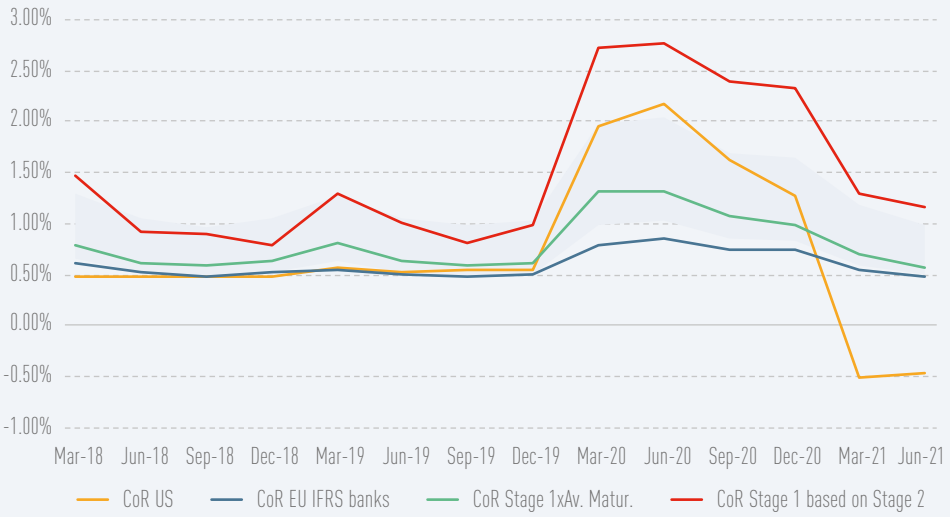
The EU and the US apply different ECL frameworks. EU/EEA banks widely apply IFRS 9 as issued by the International Accounting Standards Board (IASB), while US banks apply the US Financial Accounting Standards Board's (FASB) current expected credit loss (CECL) requirements. Although both models are based on the recognition of ECL, there are significant differences between them. The most relevant is the time horizon for calculating ECL. While CECL requires the recognition of lifetime ECL for all financial assets since their origination, IFRS 9 is based on a dual credit-loss measurement approach, according to which the loss allowance is measured at an amount equal to either:

- the 12-month ECL for those exposures that have not experienced a significant increase in the credit risk since their origination (stage 1 exposures), or
- the lifetime ECL for those exposures classified in stage 2 or 3.

Given the requirement to recognise lifetime ECL for all financial assets, the accumulated loan loss allowances and provisions are expected to be higher under the US CECL (all things being equal). Nonetheless, assuming a static balance sheet, at the onset of a crisis, the IFRS 9 impairment model could result in a cliff effect in loan loss provisions due to a transfer of exposures from stage 1 (12-month ECL) to stage 2 or 3 (lifetime ECL) and, thus, to a rise in CoR. However, the first phase of the COVID-19 pandemic was characterised not only by a loan migration from stage 1 to stage 2 but also by a material increase in lending. New lending in the EU/EEA might be subject to lower provisioning requirements and, thus, lower CoR, than in the US, as EU/EEA banks normally classify new lending as stage 1.

If EU/EEA banks had to recognise lifetime ECL on their loans classified under stage 1, they would face additional provisioning needs. Although a precise assessment of these extra provisions would require very granular inputs, a proxy could be obtained by assuming an average remaining maturity of loans of 4.4 years and a proportional ECL increase with maturity ([78]). In such a hypothetical scenario, the CoR of EU/EEA banks would have gone from 0.61% in December 2019 (vs actual 0.50%) to 1.31% in March 2020 and 1.32% in June 2020 (vs actual 0.80% and 0.86%, respectively). In any case, the CoR of EU/EEA banks would still be below the actual CoR of US banks. In an extreme case where the CoR of stage 1 loans would be the same as stage 2 loans, the overall CoR for December 2019 and June 2020 would have been 0.98% and 2.78% respectively. However, these figures should only be taken as a reference since, in contrast to stage 2 loans, the loans under stage 1 have not experienced a significant increase in credit risk (Figure 89).

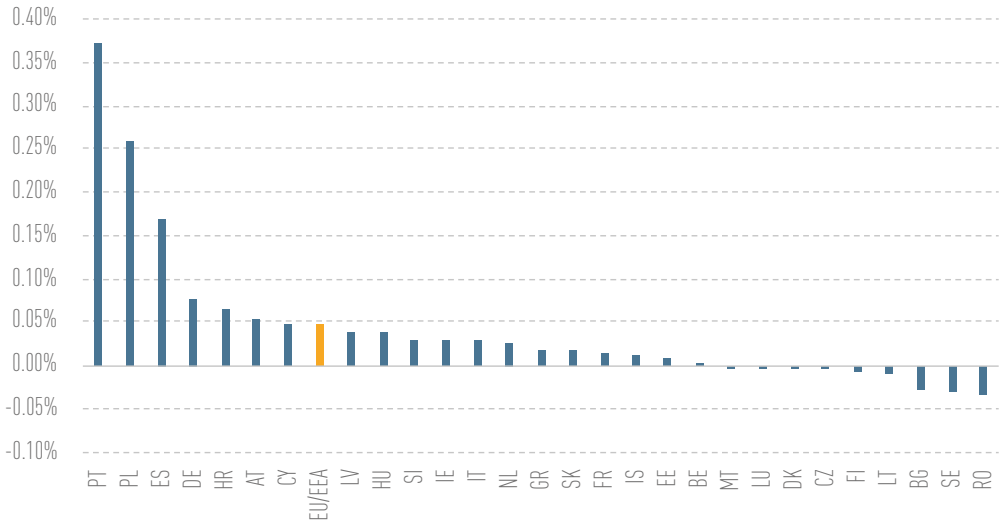
Figure 89: Cost of risk in the US and in the EU/EEA
Source: Quarterly Trends for Consolidated U.S. Banking Organizations, NY Fed; and supervisory reporting data. The shaded area corresponds to a range of +/-2 years of average maturity.



([78]) The average maturity is estimated as the weighted average maturity of retail and corporate exposures of the sample of EU banks subject to the 2021 EBA stress test.

Provisions – not related to loan provisions or other financial instruments – were slightly up in 2021. However, they still represent a relatively low portion of the P&L account. As a percentage of total assets, they account for 0.05% (up from 0.03% in 2020). Only for three countries (Spain, Poland, and Portugal) did provisions account for more than 0.1% of total assets.

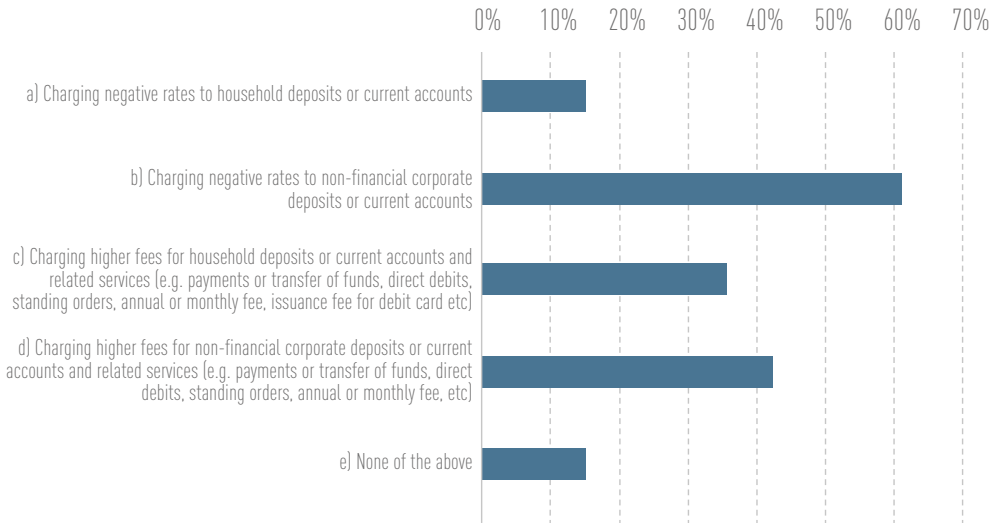
Figure 90: Provisions as % of total assets, June 2021
Source: Supervisory reporting data.



There are few external catalysers for profitability to improve

There are few external factors that can contribute to improve banks' profitability. First, although GDP growth in general implies loan growth, as for instance also reflected in the data of the ECB Bank Lending Survey, its effect on NII could be neutralised by a decrease in NIM (on GDP expectations see Chapter 1) [79]. To prevent or slow down NIM deterioration, some institutions are passing through negative deposit rates to clients, but many others are facing difficulties to do so. In the last RAQ for banks, about 60% of the respondents reported they were charging negative rates to NFC deposits. However, only 15% of them were doing so for household deposits (Figure 91).

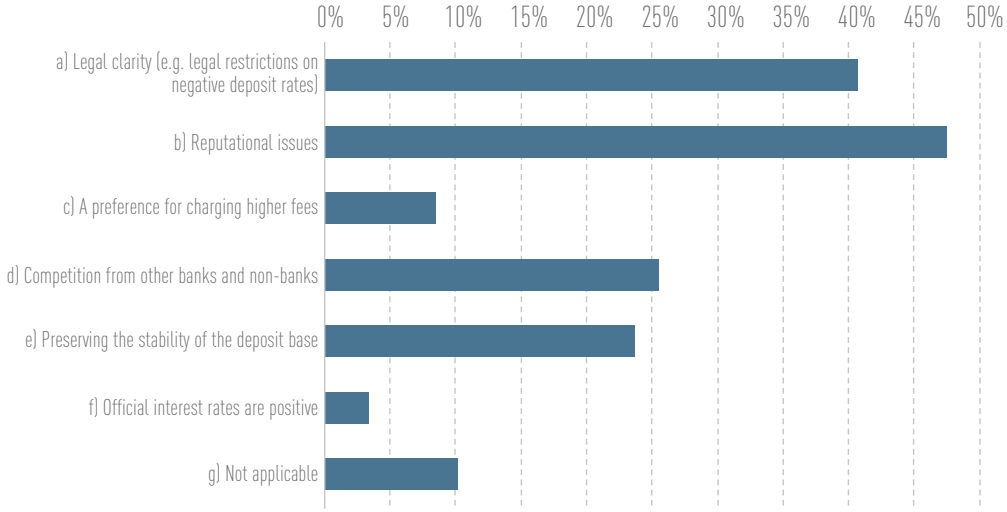
Figure 91: Banks' negative deposit rate policies
Source: RAQ for banks.



[79] See the ECB's Bank Lending Survey as of October 2021, according to which loan demand increased for most loan segments, and expectations are for a stable or continued net increase in demand depending on the segment.

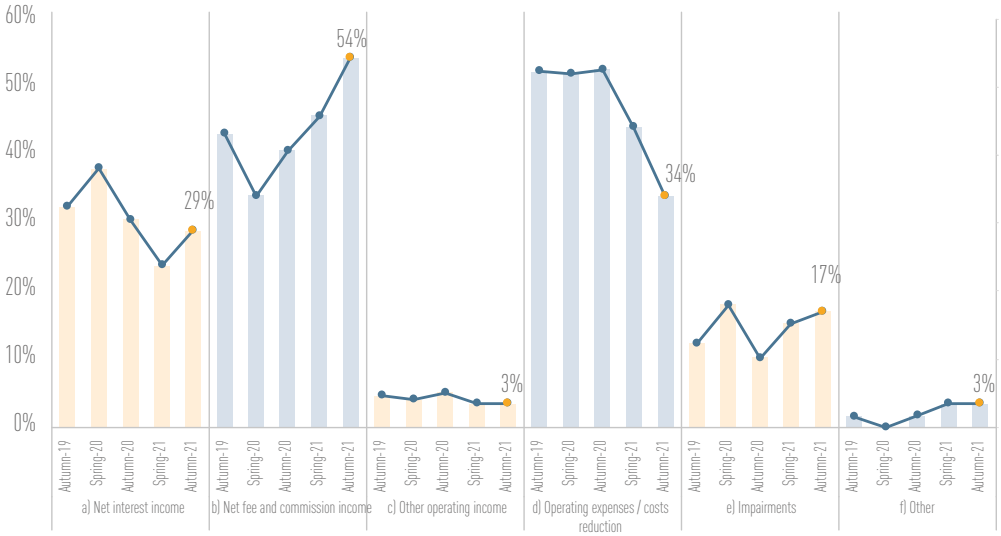
The main reasons for not charging negative rates, according to responding banks, were reputational concerns and the lack of legal clarity (Figure 92). However, despite these concerns, looking forward, the relatively low share of banks charging negative rates for households still offers the opportunity for more banks to do so. Anecdotal evidence also shows that there are more banks either planning to introduce negative rates for households, or to lower applied thresholds for charging negative rates. In parallel, several banks reported in the last RAQ charging higher fees for household and NFC deposits (Figure 91).

Figure 92: Banks' main reasons for not charging negative rates
Source: RAQ for banks.



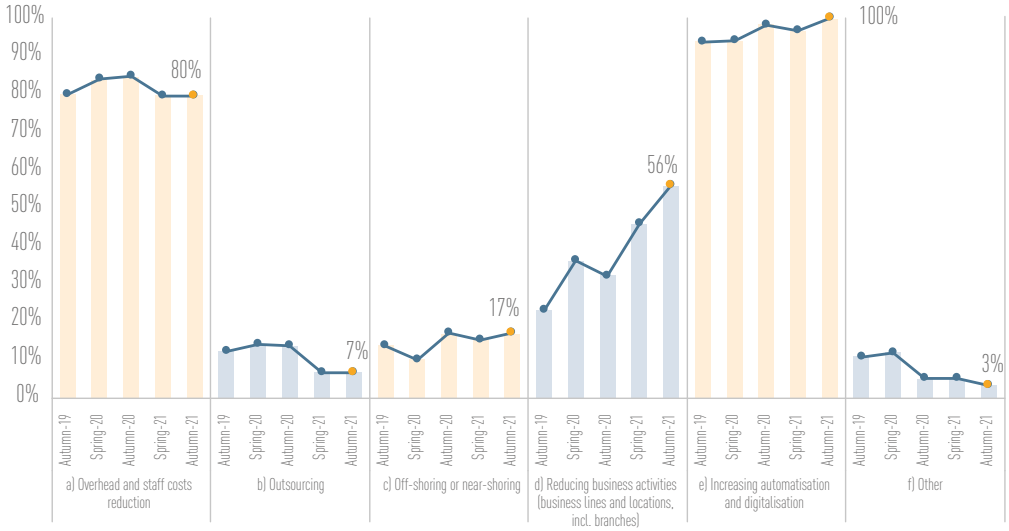
The low interest rate environment also represents an opportunity for banks to improve their NFCI as clients look for alternatives to deposits. Investment products such as pension or mutual funds aim to offer better return prospects for clients than deposits. Although competition from both banks and non-banks might limit the margins of these activities, it is also noteworthy that asset management activities might present important economies of scale, since the pooling of investors' funds makes the marginal cost of managing additional funds negligible. Banks seem to be aware of the opportunities in this area. In the last RAQ, banks identified NFCI as the main area to target to improve their profitability, overtaking operational expenses (Figure 93). However, these products also entail more risks for clients, so it is paramount that banks follow sound marketing practices to ensure that the products offered to customers are best suited to their needs and risk profile. Otherwise, this could result in rising conduct risk later.

Figure 93: Main areas targeted by banks to increase profitability (% of respondents ranking each area with 1-High Priority)
Source: RAQ for banks.



The pandemic has proved banks' and clients' capacities to operate digitally. Although this results in increasing cyber risk, it also allows banks to reduce their networks of physical branches and accelerate their digital transformation plans (see on cyber risks Chapter 6.2). All banks responding to the RAQ pointed at automation and digitalisation as an area to reduce operating expenses (Figure 94). Nonetheless, while digitalisation is essential to guarantee the longer-term sustainability of banks' business models, in the short term it may result in higher operating expenses.

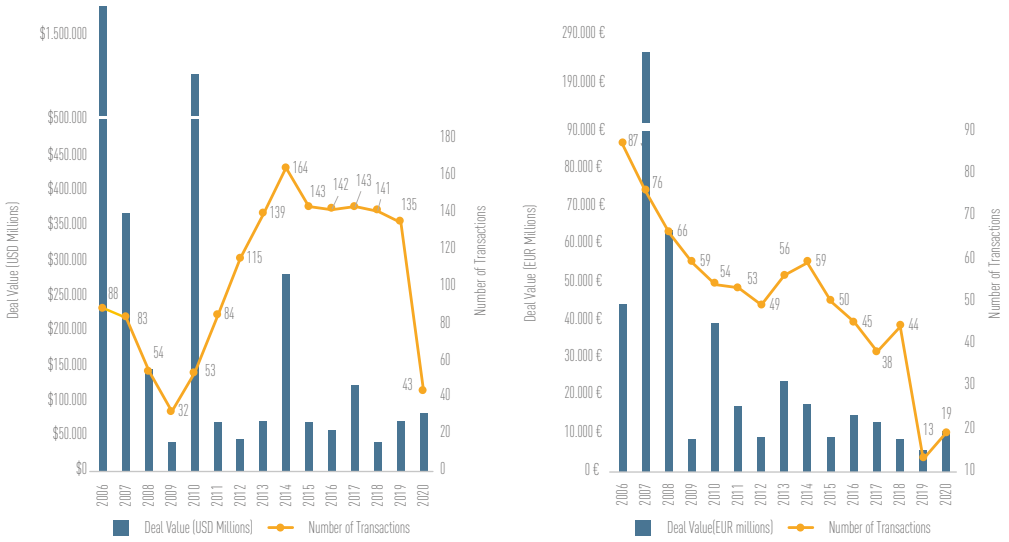
Figure 94: Main areas targeted by banks to reduce operating expenses (% of respondents ranking each area)
Source: RAQ for banks.



Another option for banks to streamline their operating structures is to embark on consolidation. Domestic-oriented mergers and acquisitions (M&A) could allow the institutions involved to eliminate duplication in their branch networks and to release resources to speed up their restructuring. In 2020, M&A transactions increased in the EU/EEA banking sector. There were 19 major deals (13 in 2019) with a total value of EUR 10.8 bn (EUR 5.6 bn in 2019) (Figure 95). The main transactions took place in Spain and Italy.

Despite this increase in transaction numbers and volumes, these figures are still far away from previous years, especially compared to pre-GFC levels. More importantly, M&A activity in the EU/EEA banking sector is only a fraction of the activity observed in the US. Although the pandemic has resulted in a material decrease in M&A activity in the US, in 2020 there was a slight increase in the value of the executed deals (USD 95 bn vs USD 84.5 bn in 2019) (Figure 95).

Figure 95: M&A deals in the EU/EEA (left) and the US (right) banking sector
Source: S&P Market Intelligence, EBA calculation.



6. Operational resilience

6.1. Operational resilience: general trends

Operational risk has gained growing attention from supervisors and banks, and its scope has increasingly expanded to conduct-related operational risk, including anti-money laundering (AML) risk and other legal and reputational risks. With technological developments, digitalisation, and the growing importance of ICT at banks, the scope and relevance of operational risk has further broadened. Technological advances are moreover underlining the importance of ensuring operational resilience.

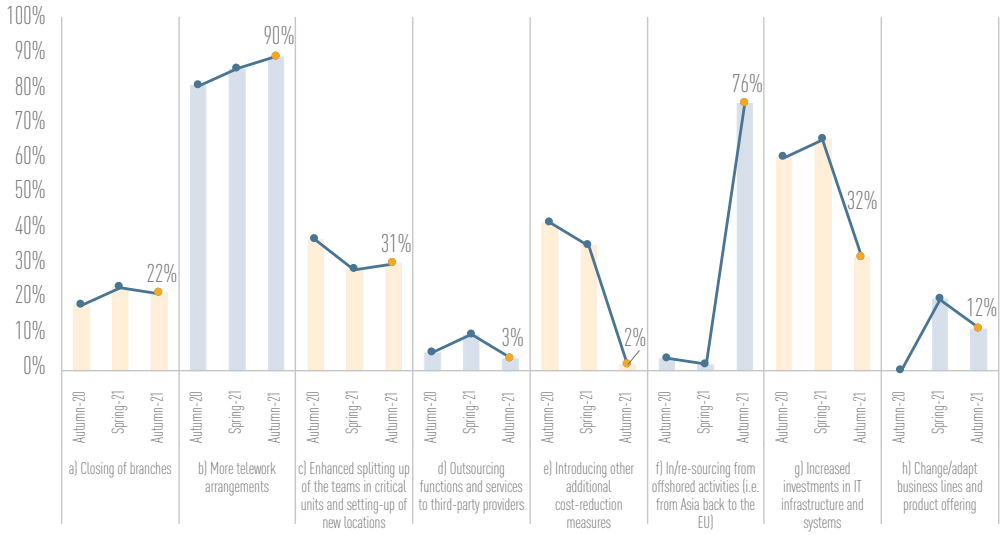
The use of ICT at banks and by their customers has rapidly increased since the beginning of the pandemic. Implemented not least as containment measures in response to the pandemic, ICT is accelerating digital transformation of the financial sector. Reliance of banks on digital and remote solutions to perform their daily operations, to deliver their services to customers, and to conduct business is further growing. This has resulted in an enhanced exposure and vulnerability to increasingly sophisticated cyber-attacks. Moreover, exposure to reputational and operational challenges, including business conduct, organisational change, and fraud, for example, has not diminished with the pandemic. Accordingly, the majority of banks and analysts identify an increase in operational risk in their responses to the RAQ, at 56% and 60%, respectively.

The pandemic also resulted in operational changes at banks

With the outbreak of the pandemic last year, banks swiftly enacted business contingency measures in response. These measures mostly included extended remote working for staff, strengthening ICT infrastructure and cybersecurity levels, as well as splitting up teams in critical units and setting up new locations. Banks continued to operate largely unaffected by measures to contain the pandemic throughout 2021, with no major adverse impact on operations from a prudential point of view.

Most contingency measures originally introduced at the beginning of the pandemic were upheld in 2021, not least since they have demonstrated their effectiveness. These measures became increasingly relevant with accelerated digitalisation and use of technology. Accordingly, 90% of respondents to the RAQ have introduced more teleworking arrangements, 76% have decided to in/re-source from offshored activities and 32% have increased their investments in IT infrastructure. An increasing number of respondents (12%) agree to have changed or adapted business lines as well as product offerings as a response to the pandemic (20% in spring 2021, Figure 96). This is not least driven by demand for digital services. Further measures originally introduced in response to the pandemic now also increasingly affect business models and are driving banking sector changes, such as deploying new digital and remote business channels for clients. This may indicate that the pandemic and lessons learnt are a catalyst for innovation in the banking sector.

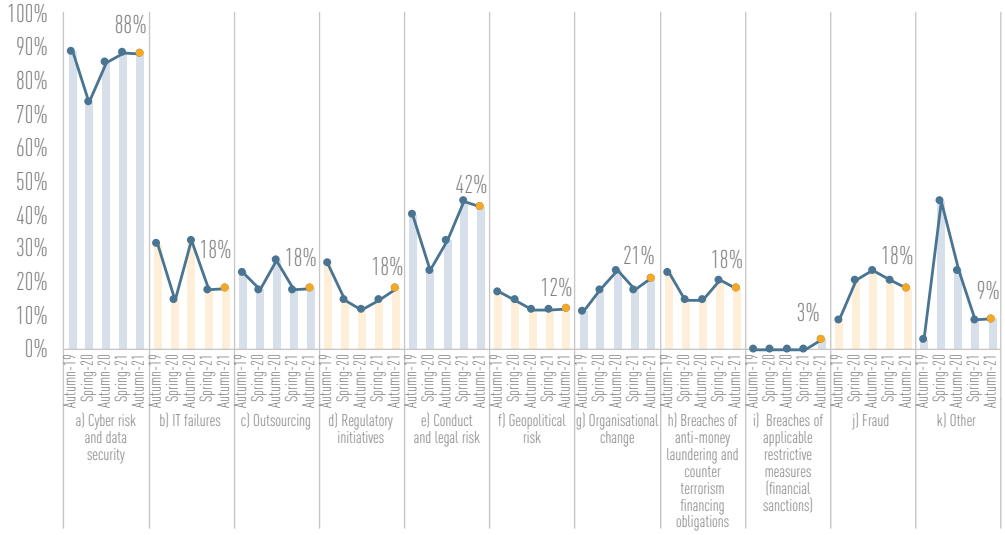
Figure 96: Permanent organisational changes banks put in place as response to the COVID-19 crisis
Source: RAQ for banks.



Cyber risk and data security as drivers of operational risk

Banks and analysts share a view that cyber risk and data security are by far the most prominent drivers of increased operational risks. This is reflected in their responses to the RAQ (88% and 75% agreement, respectively). Yet banks' and analysts' views are somewhat diverging on further drivers of operational risk. To banks, conduct and legal risk is, at 42% agreement, the second most important driver of operational risk, whereas only 25% of analysts agree to conduct and legal risk as the main driver of operational risk. This may point to different perceptions between banks and market observers about the impact that respective risks may cause (Figure 97).

Figure 97: Main drivers of operational risk as seen by banks ([80])
Source: RAQ for banks.

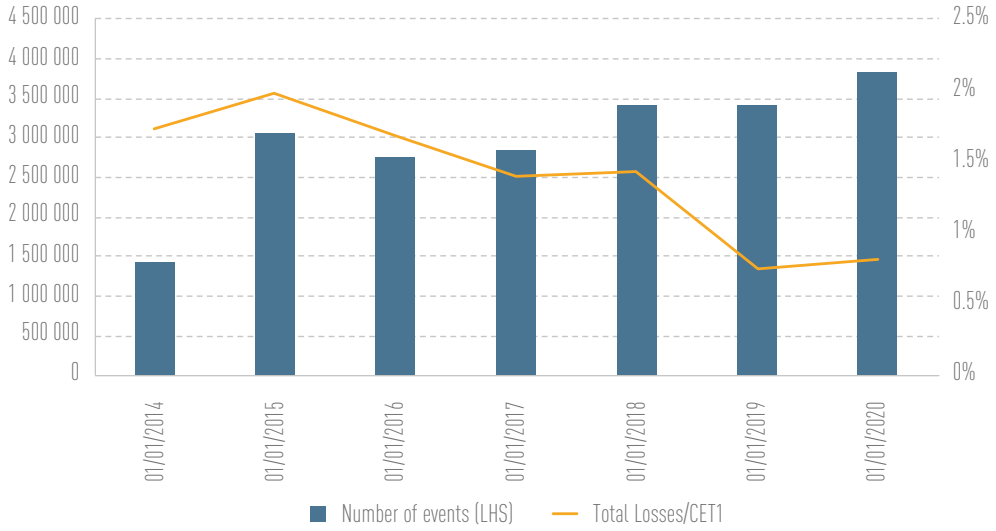


([80]) Agreement to up to three options was possible for respondents.

Strong increase in the number of operational risk loss events

Reporting data indicates a strong increase in losses related to operational risk in 2020. The total number of loss events EU banks reported in 2020 increased by 12% compared to 2019 to over 3.8 million events ([81]). It is the highest number of loss events since data has been available. It might indicate that banks have become more vulnerable to operational risk in the pandemic. Total materialised losses from new operational risk loss events also increased by over 10% compared to 2019. They amounted to over EUR 11 bn in 2020 (Figure 98). Yet this amount was still markedly lower than in 2014 – 2018, when some large banks were affected by high litigation and settlement payments from, for example, breaches of financial and trade sanctions as well as breaches of AML and countering the financing of terrorism (CFT) provisions. The amount of total losses from new operational risk loss events as a share of CET1 capital also increased to 0.8% in 2020, from 0.75% in 2019, after a declining trend in the previous years. Growing CET1 capital in 2020 was not least moderating the growth of operational risk losses as share of CET1 capital (see Chapter 4).

Figure 98: Total losses in operational risk as a share of CET1 and number of new events over time, 2014 – 2020
Source: Supervisory reporting data.

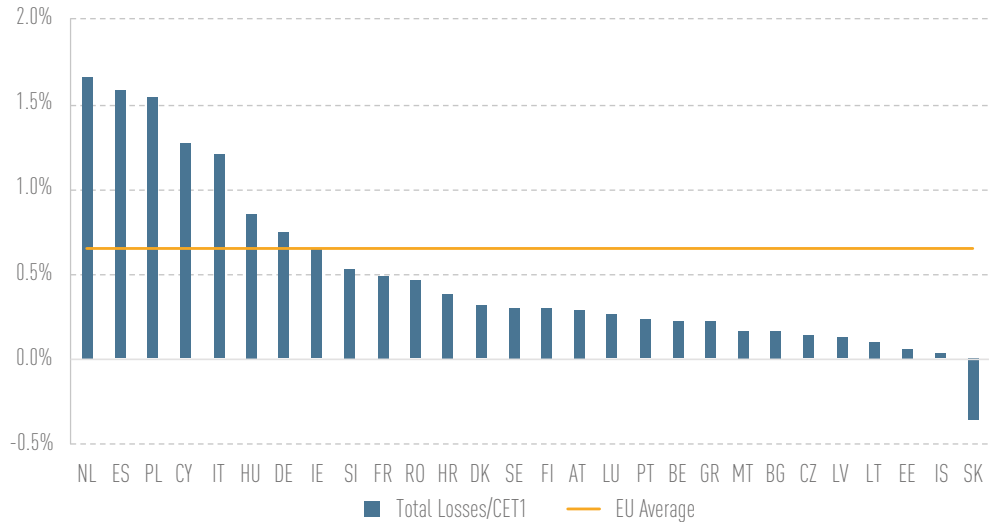


These figures confirm that operational risk has increased in the pandemic. Since total operational risk amounts only reflect materialised losses from new events, further future losses related to these incidents, for example as a consequence of court rulings or legal settlements, might in the coming years add to losses that have already been recognised. Moreover, additional litigation costs from legal settlements that banks are entering into may not always be fully reflected in the reported data. Operational risk events might not lead to a directly linked financial loss but might imply reputational damage. This may result in decreasing revenues in the future if customers leave the bank or the bank faces challenges to attract new customers. Costs might also indirectly increase as a result of materialising operational risk, when higher investment in ICT or governance becomes necessary or risk premia for market-based funding increase.

Country-by-country data of new operational risk losses shows that losses are disbursed. Several jurisdictions reported relatively low loss amounts, although they have faced high litigation costs in the past or were affected by incidents involving AML/CFT systems and control failures. It will be important to gain a deeper understanding of drivers of large divergencies in operational risk losses across countries and banks, and identify possible lessons where losses are low (Figure 99).

([81]) The analysis of this and the following figures captures yearly data.

Figure 99: Total losses in operational risk as a share of CET1, by country, December 2020
Source: Supervisory reporting data.



6.2. Digitalisation and ICT-related risks

Cyber risk and data security are regarded by far as the most prominent drivers of increased operational risk, as responses to the RAQ show (88% agreement). Its relevance further increased in the pandemic. A growing share of RAQ respondents also point to organisational change as a main operational risk driver. This risk not least arises when institutions need to adapt to an increasingly digital environment.

Cyber risk has been on the rise

The strongly growing usage of and reliance on technology in the past few years was accompanied by a higher number and impact of ICT-related incidents. This was not least driven by the increasing complexity and interconnectedness of ICT systems, either owned by banks, or those dependent on third-party providers. Risks stemming from increasingly sophisticated and more organised cyber-attacks as well as other ICT-related incidents are therefore unabatedly high.

A few indications may point to some progress made to address ICT challenges. For example, the share of RAQ respondents referring to IT failures as main drivers of operational risk decreased to 18% from 32% in autumn 2020. This may also underline the resilience of ICT systems against operational challenges in the pandemic. Also, 76% of respondents intend to increase investments into ICT infrastructure and systems, up from 62% in autumn 2020.

Further efforts needed to address ICT security risk and cyber risk

However, further action is needed at banks to manage and counter ICT security risk. These actions include intensified efforts to counter cyber-attacks and improve logical ICT security. The Bank for International Settlements (BIS), for example, points out that cyber threats and incidents, such as ransomware attacks, have emerged as a growing concern for the banking sector over the past few years. They pose risks to the safety and soundness of individual banks and the stability of the financial system ([82]). Cyberattacks on financial market infrastructures and their potential consequences pose additional risks for financial stability. As a result, ICT security as well as related ICT third-party and outsourcing risks –also affected by cyber risk – should be prioritised and addressed at EU/EEA level.

Supply chain attacks increased in number and sophistication in 2020. The recent 'Threat Landscape for Supply Chain Attacks' Report from the EU Agency for Cybersecurity (ENISA) also shows that this trend is continuing in 2021 ([83]). ENISA identified that as organisations are becoming better protected and risk-aware, threat actors are turning their focus to attacking organisations' supply chains. Going forward, banks will need to stay vigilant to ensure that effective governance arrangements and technical tools are in place to assess the ICT and security risk management capabilities of their third-party service providers.

([82]) See BIS Newsletter on cyber security (20 September 2021).

([83]) See ENISA Threat Landscape for Supply Chain Attacks (July 2021).

It is also important to ensure that third-party service providers do not become channels to propagate cyberattacks. As ICT outsourcing risks may pose challenges, they also require financial institutions' senior level management attention and effort to manage them. The BIS encourages banks to adopt tools as well as effective practices and frameworks, including provisions for testing their efficacy, for cyber risk management that are aligned with widely accepted industry standards ([84]). Adopting such approaches would allow banks to better identify, assess, manage, and mitigate their exposures to cyber risks, including those arising from third-party service providers. The EBA Guidelines on Outsourcing arrangements and on ICT and security risk management issued in 2019 provide helpful guidance on the steps and approach to be followed to manage associated risks ([85]).

Improving cyber resilience and ICT risk management frameworks

It remains a priority for financial institutions to have in place adequate governance and control frameworks and appropriate technologies to address information security threats. Financial institutions, both individually and jointly, should intensify their efforts to improve their cyber resilience and to conduct cyber-testing exercises. As collaboration and sharing of best practices is key for this purpose, industry-led cooperation initiatives are welcomed and may bring industry-wide benefits. From an advanced cyber testing perspective, 11 EU Member States have already adopted, or are in the process of adopting a framework for Threat-Led Penetration Testing (TLPT), derived from the TIBER-EU framework ([86]). TLPT aims to reveal the strengths and weaknesses of the tested entities, especially those that form the core financial infrastructure, enabling them to reach a higher level of cyber maturity and resilience.

The forthcoming Digital Operational Resilience Act (DORA) aims to improve the ICT risk management framework in the EU

DORA intends to consolidate and harmonise ICT risk management requirements across different financial sectors. It also aims to establish rules for harmonised testing of ICT systems. In the testing framework, it is intended to require significant entities to conduct TLPTs that allow for mutual recognition across different jurisdictions. DORA also intends to help increasing supervisor awareness of cyber risks and ICT-related incidents. Moreover, it plans to introduce powers for financial supervisors to oversee risks stemming from financial entities' dependency on critical ICT third-party service providers. Beyond DORA, financial institutions need to continue taking measures to manage the risks they are exposed to, following the existing guidance and available best market practices.

Under the draft DORA legislative proposal, the European Supervisory Agencies (ESAs) are set to play a key role in improving digital operational resilience across the EU financial sector. This includes the development of policies and the performance of new tasks in ICT risk management, ICT-related incident classification and reporting, advanced digital operational resilience testing, and ICT third-party risk management, including oversight of critical ICT third-party service providers.

Digitalisation trends

Technological developments are both driving and facilitating the digitalisation of EU banks. In June 2021, the EBA published an analysis of the use of technology (including cloud computing and machine learning) to provide institutions with solutions to transform the way they comply with their regulatory requirements ([87]). So-called 'Regulatory Technology' (RegTech) solutions aim to make certain processes more effective and efficient and are most evident in the field of:

- AML/CFT – for example, providing solutions for sanction screening or remote onboarding of customers;
- Fraud prevention – through automated behaviour and transaction monitoring;
- Prudential reporting – supporting institutions in their regulatory submissions;
- ICT security – providing detection mechanisms for an institution's operational security; or
- Creditworthiness assessments – providing new capabilities for assessing the creditworthiness of clients, and assessing benefits, challenges and risks of RegTech use.

Going forward, banks and competent authorities should closely monitor RegTech developments to facilitate digitalisation. At the same time, they should ensure that any RegTech-related risks, including ICT security and third-party reliance risk, are well managed.

[84] See BIS Newsletter on cyber security (20 September 2021).

[85] See the EBA's Guidelines on Outsourcing and the EBA's Guidelines on ICT and security risk management.

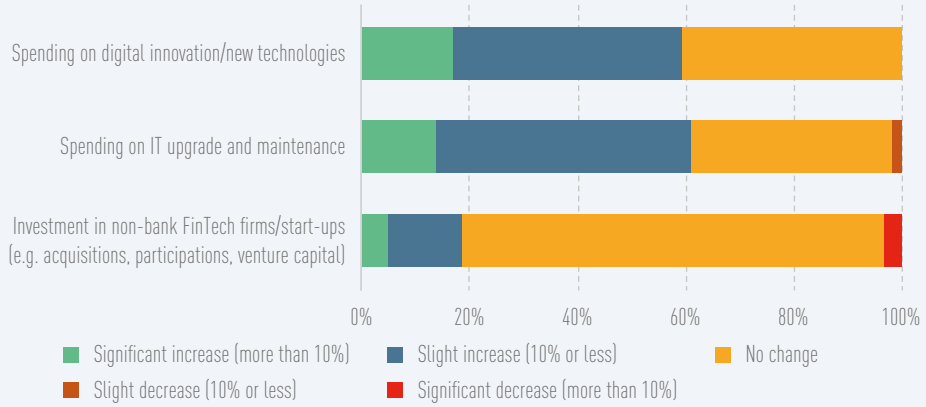
[86] See the ECB on the European framework for threat intelligence-based ethical red-teaming.

[87] See the EBA Analysis of RegTech in the EU financial sector (June 2021).

Box 11: Digitalisation trends at banks

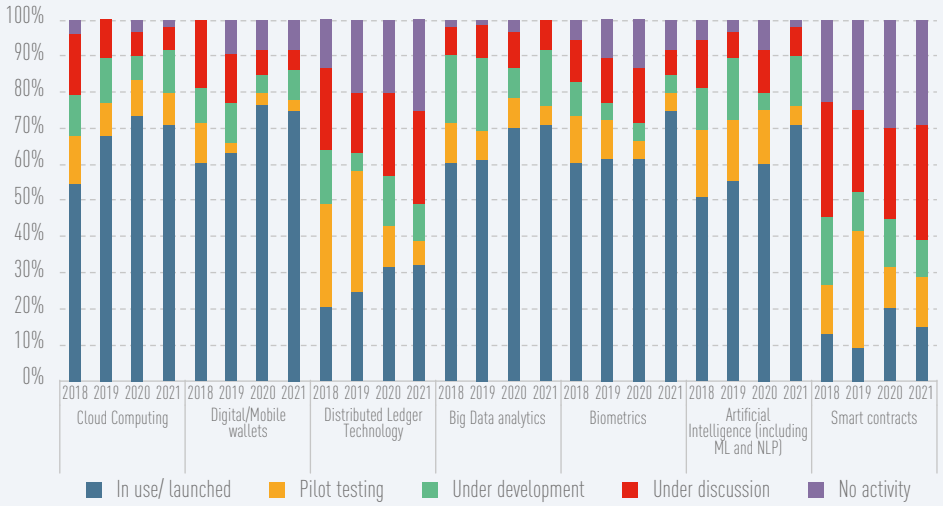
Responses to the RAQ indicate that the pandemic has been a catalyst for digitalisation. 17% of the respondents plan to significantly increase spending on digital innovation/technologies as a consequence of the pandemic, and 14% plan to materially increase investment in IT systems upgrades and maintenance. The majority of the respondents anticipate slight (up to 10%) budget increases for digital innovation or for upgrades and maintenance of IT systems, while approximately 40% of respondents do not expect their budgets to increase. Only a handful of banks expect a significant (5% of respondents) or slight (14% of respondents) increase in investments in non-regulated FinTech companies, via various forms, such as acquisitions, participations or venture capital (Figure 100).

Figure 100: Banks' budgetary changes planned from Q2 2021 onwards as a result of COVID-19
Source: RAQ for banks.



The use of biometrics increased in 2021, as 75% of RAQ respondents indicate, which compares to 62% in autumn 2020. Usage of Artificial Intelligence solutions, including machine learning and natural language processing, also increased from 60% to 71%. At the same time, the use of cloud computing, digital/mobile wallets and big data analytics appears to have remained rather constant, with agreeing RAQ responses between 70 - 75% over the last two years. Banks are still exploring the application of smart contracts and Distributed Ledger Technology (DLT). 32% of banks have 'smart contract' initiatives 'under discussion', while adoption rates of DLT are varied. One third of respondents indicate to have DLT solutions in use, while the remaining ones are split between 25% indicating that they have projects under discussion, and a further 25% indicating that they are not exploring DLT technology at all (Figure 101).

Figure 101: Status of adoption of financial technology by the EU banks (YoY comparison), 2018 - 2021
Source: RAQ for banks.



6.3. Money laundering and terrorist financing risks

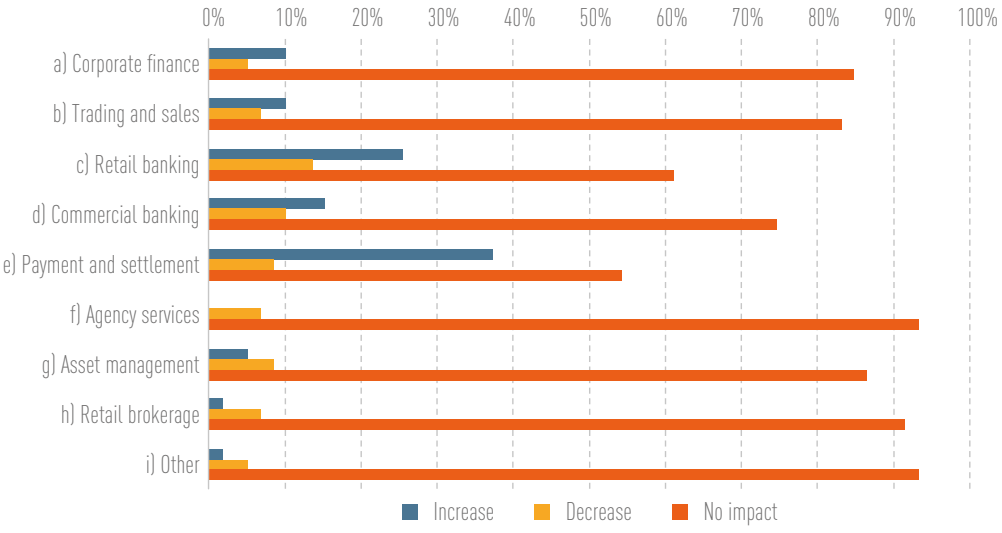
High-profile cases of money laundering involving European banks in recent years have caused substantial reputational damage. They also led to several banks being subject to costly enforcement action in respect of their AML/CFT systems and controls failures. ML/TF undermines the integrity of the EU banking sector and banks. In the prevention of ML/TF, banks have an important gatekeeper role.

Possible underestimation of continued ML/TF risk

From an operational risk perspective, banks seem to attribute less significance to ML/TF risk than to other aspects related to operational risk. This is shown in their responses to the RAQ, where only 18% of respondents agreed that ML/TF risk was relevant in this context (Figure 97). For analysts, breaches of AML/CFT legislation are not among the main drivers for increasing operational risk. This rather low prominence of ML/TF risks could be linked to several factors. It could, for example, be related to banks taking comfort from significant investments into AML/CFT compliance frameworks, and subsequently, to banks considering that this has helped them to better identify and manage ML/TF risks which they are exposed to. It could also be linked to the fact that breaches of AML/CFT obligations are more perceived as being of a legal or regulatory nature, rather than purely operational.

The EBA considers that banks might still underestimate the level of ML/TF risks they are exposed to ([88]). A possible underestimation of these risks may be reflected in expectations on how ML/TF risk exposure might affect specific business lines such as corporate banking and asset management in the next 6 to 12 months. A large majority of banks responding to the RAQ did not anticipate that ML/TF risk would have a short-term impact on any specific business lines. A sizeable share of banks, however, indicated they would expect their ML/TF risk exposure to increase in the areas of payment and settlements, retail banking, as well as commercial banking (Figure 102).

Figure 102: Expectations of ML/TF risk exposure related to specific product and business lines
Source: EBA RAQ for banks.



([88]) See the EBA Opinion on ML/TF risks affecting the EU financial sector, March 2021.

Even though each bank is different and is exposed to different levels of ML/TF risks as a result of its customer base, geographic exposure, distribution channels or the products and services it offers, some risks tend to be common to the whole sector. This includes risks that are linked to banks' exposure to other sectors, such as payments or trade finance. The entire financial sector is exposed to risks related to increasing reliance on remote onboarding solutions, which have become more prevalent in the context of the COVID-19 pandemic.

Also related to the context of the pandemic, the EBA underlined some concerns in its 2021 Opinion on ML/TF risks that certain financial institutions might not be sufficiently well equipped to mitigate their ML/TF risks effectively. For instance, the pandemic gave rise to new crime typologies, including those related to the rapid disbursement of COVID-19 relief funds at the beginning of the pandemic, which banks - under pressure to pay out - may not have been sufficiently prepared to manage. The possibility of fraud is also related to the sale of medical products, which banks may have found difficult to integrate quickly into their monitoring systems.

The reduction in some banks' revenues as a result of the pandemic may also have had a negative impact on the institutions' AML/CFT compliance, or enticed them to assume greater ML/TF risks in the pursuit of profits. To ensure that banks and other financial institutions, as well as CAs, keep up to date with the latest developments in their risk-mitigating efforts, the EBA warned about new ML/TF risks with the outbreak of the pandemic, and called for adequate safeguards against this risk to be in place ([89]).

Guidance on assessing ML/TF risk and identifying risk factors

To help banks and other financial institutions to effectively identify and mitigate ML/TF risks to which they are exposed, the EBA updated its Guidelines on ML/TF risk factors ([90]). These provide further guidance on how to identify risk factors and assess ML/TF risk. The EBA is also finalising the revised version of its Guidelines on risk-based supervision and is preparing to consult on new guidelines on remote customer onboarding.

The EBA recognises that ML/TF risks cannot be addressed by AML/CFT supervisors on their own, and that cooperation with prudential supervisors is an essential component of effective supervision. To that end, the EBA published in June 2021 draft guidelines under Article 117 of the CRD on cooperation and information exchange between prudential supervisors, AML/CFT supervisors and financial intelligence units, which explain how and when different supervisors should cooperate with each other, and also with Financial Intelligence Units ([91]). The EBA also continues to support and monitor the setting up of AML/CFT colleges of supervisors in line with its 2019 Guidelines ([92]). By September 2021, more than 80 AML/CFT colleges had already been established.

Another important development in the EU AML/CFT framework in 2021 is the new package of legislative proposals to strengthen the EU's AML/CFT rules, proposed by the European Commission to the co-legislators in July 2021. The package also includes a proposal for the creation of a new EU authority to fight money laundering ([93]).

6.4. Further legal and reputational risks

Legal and reputational risks go beyond digitalisation and ICT-related risks as well as ML/TF risks. Concerns about past misconduct behaviour (such as breaches of financial and trade sanctions, redress for mis-selling banking products to retail customers, fines associated with financial crime, misconduct, etc.) continue to uphold and add to the operational risks the pandemic is posing. Beyond reputational damage for the banks concerned, misconduct costs can be substantive and further add to challenges to attain sustainable profits. They also indirectly affect banks' ability to extend lending to the real economy. Business misconduct can, moreover, undermine trust in the proper functioning of the financial system.

([89]) See the EBA's statement on actions to mitigate financial crime risks in the COVID-19 pandemic from 31 March 2020.

([90]) EBA's Guidelines on customer due diligence and the factors credit and financial institutions should consider when assessing the money laundering and terrorist financing risk associated with individual business relationships and occasional transactions ('The ML/TF Risk Factors Guidelines') under Articles 17 and 18(4) of Directive (EU) 2015/849.

([91]) Consultation Paper, Draft Guidelines on cooperation and information exchange between prudential supervisors, AML/CFT supervisors and financial intelligence units under Directive 2013/36/EU.

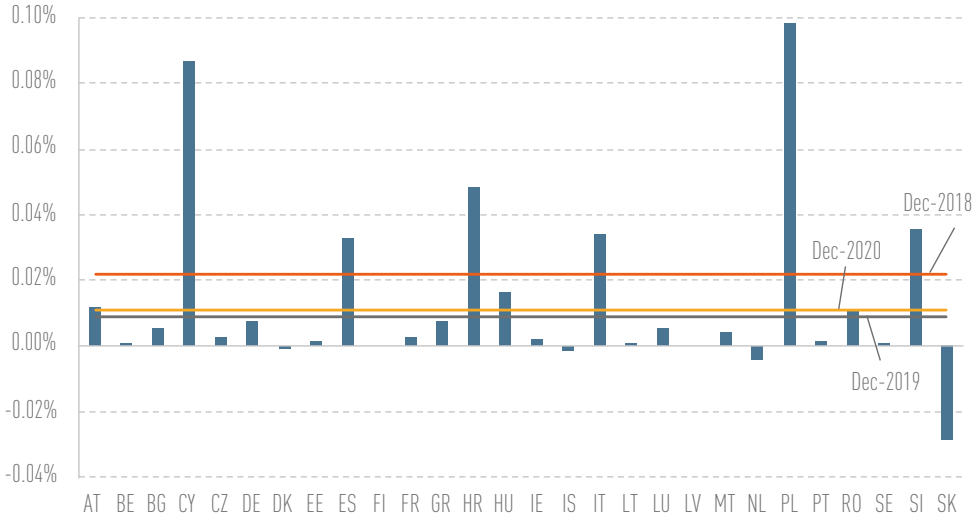
([92]) ESA's Joint Guidelines on cooperation and information exchange for the purpose of Directive (EU) 2015/849 between competent authorities supervising credit and financial institutions.

([93]) European Commission, New AML/CFT package, July 2021.

High redress costs

In the RAQ, 30% of responding banks indicated that they have paid aggregate litigation and redress costs and similar payments of over EUR 1 bn since the financial year 2007/2008. 3% have rendered over EUR 10 bn of such payments since 2007/2008. Data indicates that net changes in provisions due to pending legal issues and litigation measured as a share of total assets were at approx. 1 bp in December 2020, slightly lower than in December 2019, and markedly lower than in December 2018 (at approx. 2 bps, Figure 103). Considering that banks regard conduct and legal risk as the second most important driver of operational risks according to the RAQ (42% agreement, see Figure 97), current provisioning levels due to pending legal issues and litigation may give rise to some concerns as to whether they adequately reflect lingering litigation risks for all banks. This is especially relevant when considering that the pandemic appears to have led to increasing operational risk, including further forthcoming litigation risk.

Figure 103: Net provisions for pending legal issues and tax litigation as a share of total assets by country (2020) and for the EU (2018-2020)
Source: Supervisory reporting data.



Vigilance on operational risk is needed

Going forward, the pandemic, uncertainties about its further course, along with measures introduced to address it, may provide opportunities for the emergence of new types of misconduct. Related losses, as well as losses from further potentially fraudulent activities may not yet have materialised. The strong increase of reported loss events and of materialised losses from new operational risk loss events in 2020 may point to heightened vulnerabilities to operational risk in the pandemic, and of more to come in 2021 and the following years. It is therefore important that banks and supervisors stay vigilant in times of economic uncertainty and strengthen their monitoring of business conduct and operational risk.

7. Policy implications and measures

Banks as well as micro and macro prudential authorities should be prepared for potential abrupt asset price corrections. Inflationary pressures are already driving interest rates up. This might result in a price correction in financial and real estate assets. Supply bottlenecks might impair the capacity of fiscal policy to stimulate output and employment. Progress in worldwide COVID-19 immunisation may partially alleviate tensions in global supply chains. EME exposures might be particularly vulnerable in respect of potential asset price corrections.

Banks should ensure that newly originated loans are of appropriate credit quality and are appropriately priced. Fiscal and regulatory support measures have made it more difficult to assess the actual creditworthiness of borrowers. Banks should nevertheless maintain prudent credit standards. Exposures to emerging economies, especially to countries where the economic recovery or vaccination progress is lagging, should be carefully monitored.

Banks should monitor and address asset quality problems in the sectors most affected by the pandemic. Banks and supervisors should seek to identify early signs of declining credit quality. Exposures under support measures might require particular focus. Banks should also identify in a timely manner borrowers likely to face difficulties and assess the potential impact on loan losses. This includes early engagement with borrowers – including those under moratoria or PGS – for which viable forbearance options may exist. Where no viable debt restructuring solutions are available, banks should seek suitable NPL resolution options, taking into account the need to protect consumers.

Banks need to incorporate ESG risk-related considerations into their business strategies and governance structures. They should consider these risks in their risk appetite and internal capital allocation process. Banks should continue to develop methodologies and approaches to test their long-term resilience against ESG factors and risks, including the use of scenario analysis.

Amidst increasing rate volatility, banks should carefully evaluate the risk profile of their funding plans. Banks may take advantage of low yields to accelerate the build-up of their MREL buffers. They should, however, ensure that they are able to substitute current central bank funding with other funding, not least to prevent a material deterioration of the NSFR or sharp increases in funding costs. Amid decreasing covered bond issuances, commonly considered as a reliable source of funding, including in times of increased market volatility, banks should ensure they have access to covered bond markets and investors.

Given the COVID-19-related uncertainties, banks should maintain prudent capital distribution policies. Even though supervisory recommendations on capital distribution have expired, banks should not pursue overly generous dividend and share buy-back policies. Regulators and supervisors should provide clarity on the period and approach to restore capital buffers released during the pandemic. Banks and authorities should also consider emerging risks stemming from real estate lending as well as the potential abrupt repricing of risk in financial markets.

Clients' increasing use of digital channels allows banks to speed up the streamlining of operating expenses. Going forward, major profitability improvements via lower impairments or higher revenues seem difficult. EU/EEA banks' CoR is already at pre-pandemic levels. It needs to be seen if any major reversals of impairments will be possible. Although NFCI has increased substantially recently, pressures on NII – the main source of banks' revenues – will continue to weigh on banks' revenues. In any event, this adds to high competition among banks, but also FinTech and BigTech companies. The pandemic has shown that banks can reduce further their physical branch networks. Banks should set appropriate digital transformation strategies, backed by management bodies, and constantly checked to ensure a real transformation in terms of profitability. Domestic M&A deals can help banks exploit potential cost synergies and economies of scale.

Banks need to prioritise ICT security. Operational risk appears to be increasing, mainly due to ICT issues. The rise of cyber threats and incidents, such as ransomware attacks, poses risks to the safety and soundness of individual banks and the stability of the financial system. Banks should also ensure that effective ICT security arrangements are in place at their third-party service providers, not least since cybercriminals are increasingly turning their focus to banks' supply chains.

Prudential supervisors, AML/CFT supervisors and financial intelligence units should cooperate closely. While each authority has its own role and responsibilities, effective cooperation and information exchange among them is essential to ensure the prudential soundness and viability of banks and financial stability. These authorities as well as banks should pay special attention to areas with increased risk during the pandemic, such as remote onboarding of customers or the misuse of government support funds.

Annex I: Samples of banks

List of banks that made up the sample population for the risk indicators, the transparency exercise and the RAQ ([94]):

Name	Country	Risk indicators	2021 Transparency Exercise	RAQ
Sberbank Europe AG	Austria	X	X	
BAWAG Group AG	Austria	X	X	X
Raiffeisenbankengruppe OÖ Verbund eGen	Austria	X	X	
Raiffeisen Bank International AG	Austria	X	X	X
UniCredit Bank Austria AG	Austria	X		
Volksbanken Verbund	Austria	X	X	
Erste Group Bank AG	Austria	X	X	X
KBC Groep	Belgium	X	X	X
Investeringsmaatschappij Argenta	Belgium	X	X	
Belfius Bank	Belgium	X	X	X
AXA Bank Belgium	Belgium	X	X	
BNP Paribas Fortis	Belgium	X		
The Bank of New York Mellon SA/NV	Belgium	X	X	
ING Belgium	Belgium	X		
Dexia	Belgium	X	X**	
DSK Bank AD	Bulgaria	X		
UniCredit Bulbank AD	Bulgaria	X		
United Bulgarian Bank AD	Bulgaria	X		
First Investment Bank AD	Bulgaria	X	X	X
RCB Bank Ltd	Cyprus	X	X	
Bank of Cyprus Holdings Public Limited Company	Cyprus	X	X	X
Hellenic Bank Public Company Limited	Cyprus	X	X	X
Ceska sporitelna, a.s.	Czech Republic	X		
Ceskoslovenska obchodni banka, a. s.	Czech Republic	X		
Komercní banka, a.s.	Czech Republic	X		
DekaBank Deutsche Girozentrale	Germany	X	X	
Erwerbsgesellschaft der S-Finanzgruppe mbH & Co. KG	Germany	X	X	
UBS Europe SE	Germany	X	X	
DEUTSCHE APOTHEKER- UND ÄRZTEBANK EG	Germany	X	X	
Volkswagen Bank Gesellschaft mit beschränkter Haftung	Germany	X	X	
Münchener Hypothekenbank eG	Germany	X	X	
DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main	Germany	X	X	X

([94]) 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 FINREP). The list of banks that are the basis for the risk indicators refers to the sample of banks used to calculate the Q2 2021 indicators. The lists of reporting institutions are available on the EBA website.

Name	Country	Risk indicators	2021 Transparency Exercise	RAQ
HASPA Finanzholding	Germany	X	X	
State Street Europe Holdings Germany S.a.r.l. & Co. KG	Germany	X	X	
J.P. Morgan AG	Germany	X	X	
DEUTSCHE BANK AKTIENGESELLSCHAFT	Germany	X	X	X
COMMERZBANK Aktiengesellschaft	Germany	X	X	X
Landesbank Baden-Württemberg	Germany	X	X	X
Landesbank Hessen-Thüringen Girozentrale	Germany	X	X	X
Norddeutsche Landesbank - Girozentrale -	Germany	X	X	X
Deutsche Pfandbriefbank AG	Germany	X	X	
Aareal Bank AG	Germany	X	X	
Hamburg Commercial Bank AG	Germany	X	X	
Bayerische Landesbank	Germany	X	X	X
Jyske Bank A/S	Denmark	X	X	
Sydbank A/S	Denmark	X	X	
Nykredit Realkredit A/S	Denmark	X	X	X
Danske Bank A/S	Denmark	X	X	X
AS LHV Group	Estonia	X		X
Swedbank AS	Estonia	X		
Luminor Holding AS	Estonia	X	X	
Abanca Corporacion Bancaria, S.A.	Spain	X	X	
Banco Santander, S.A.	Spain	X	X	X
Ibercaja Banco, S.A.	Spain	X	X	
Kutxabank, S.A	Spain	X	X	
Unicaja Banco, S.A.	Spain	X	X	
CaixaBank, S.A.	Spain	X	X	X
Banco de Crédito Social Cooperativo	Spain	X	X	
Banco Bilbao Vizcaya Argentaria, S.A.	Spain	X	X	X
Banco de Sabadell, S.A.	Spain	X	X	X
Bankinter, S.A.	Spain	X	X	X
Liberbank, S.A.	Spain	X	X**	
Kuntarahoitus Oyj	Finland	X	X	
Nordea Bank Abp	Finland	X	X	X
OP Osuuskunta	Finland	X	X	X
SFIL	France	X	X	
RCI Banque	France	X	X	
Confédération Nationale du Crédit Mutuel	France	X	X	X
La Banque Postale	France	X	X	X
Bpifrance	France	X	X	
C.R.H. - Caisse de refinancement de l'habitat	France	X	X	
HSBC Continental Europe	France	X	X	
Groupe BPCE	France	X	X	X
Groupe Crédit Agricole	France	X	X	X
Société générale	France	X	X	X

Name	Country	Risk indicators	2021 Transparency Exercise	RAQ
BNP Paribas	France	X	X	X
Banque centrale de compensation	France	X	X**	
ALPHA SERVICES AND HOLDINGS S.A.	Greece	X	X	X
National Bank of Greece, S.A.	Greece	X	X	X
Eurobank Ergasias Services and Holdings S.A.	Greece	X	X	X
Piraeus Financial Holdings	Greece	X	X	X
Erste Steiermarkische Bank	Croatia	X		
Privredna banka Zagreb d.d.	Croatia	X		
Zagrebacka banka d.d.	Croatia	X		
UniCredit csoport	Hungary	X		
Kereskedelmi és Hitelbank csoport	Hungary	X		
OTP-csoport	Hungary	X	X	X
Magyar Bankholding	Hungary	X	X	
Barclays Bank Ireland plc	Ireland	X	X	
Citibank Holdings Ireland Limited	Ireland	X	X	
AIB Group plc	Ireland	X	X	X
Bank of Ireland Group plc	Ireland	X	X	X
Ulster Bank Ireland Designated Activity Company	Ireland	X	X	
Bank of America Europe Designated Activity Company	Ireland	X	X	
Íslandsbanki hf.	Iceland	X	X	
Landsbankinn hf.	Iceland	X	X	X
Arion banki hf	Iceland	X	X	
Intesa Sanpaolo S.p.A.	Italy	X	X	X
Gruppo Bancario Finecobank	Italy	X	X	
UniCredit S.p.A.	Italy	X	X	X
Gruppo Bancario Mediolanum	Italy	X	X	
Credito Emiliano Holding S.p.A.	Italy	X	X	
Banco BPM SpA	Italy	X	X	X
Banca Popolare di Sondrio, Società Cooperativa per Azioni	Italy	X	X	
Banca Monte dei Paschi di Siena S.p.A.	Italy	X	X	X
CASSA CENTRALE BANCA	Italy	X	X	
ICCREA BANCA S.P.A.	Italy	X	X	
Mediobanca - Banca di Credito Finanziario S.p.A.	Italy	X	X	
BPER Banca S.p.A.	Italy	X	X**	
AB SEB bankas	Lithuania	X		
"Swedbank", AB	Lithuania	X		
Akcine bendrove Šiauliu bankas	Lithuania	X	X	
Precision Capital S.A.	Luxembourg	X	X	
RBC Investor Services Bank S.A.	Luxembourg	X	X	
Société Générale Luxembourg	Luxembourg	X		
BGL BNP Paribas	Luxembourg	X		
J.P. Morgan Bank Luxembourg S.A.	Luxembourg	X	X	
Banque Internationale à Luxembourg	Luxembourg	X	X	

Name	Country	Risk indicators	2021 Transparency Exercise	RAQ
Banque et Caisse d´Epargne de l´Etat, Luxembourg	Luxembourg	X	X	X
AS "SEB banka"	Latvia	X		
"Swedbank" AS	Latvia	X		
Akciju sabiedriba "Citadele banka"	Latvia	X	X	
MDB Group Limited	Malta	X	X	
Bank of Valletta Plc	Malta	X	X	X
HSBC Bank Malta p.l.c.	Malta	X	X	
BNG Bank N.V.	Netherlands	X	X*	
ING Groep N.V.	Netherlands	X	X	X
LP Group B.V.	Netherlands	X	X	
de Volksbank N.V.	Netherlands	X	X*	
ABN AMRO Bank N.V.	Netherlands	X	X	X
Coöperatieve Rabobank U.A.	Netherlands	X	X*	X
Nederlandse Waterschapsbank N.V.	Netherlands	X	X*	
dnb Bank ASA	Norway			X
SpareBank 1 SR-Bank	Norway			X
Santander Bank Polska S.A.	Poland	X		
Bank Polska Kasa Opieki S.A.	Poland	X	X	X
Powszechna Kasa Oszczednosci Bank Polski S.A.	Poland	X	X	X
LSF Nani Investments S.à r.l.	Portugal	X	X	
Banco Comercial Português, SA	Portugal	X	X	X
Santander Totta , SGPS, S.A.	Portugal	X		
Caixa Geral de Depósitos, SA	Portugal	X	X	X
BANCA COMERCIALA ROMANA S.A.	Romania	X		
BRD - Groupe Societe Generale S.A.	Romania	X		
Banca Transilvania	Romania	X	X	X
Länförsäkringar Bank AB (publ)	Sweden	X	X	
Kommuninvest - group	Sweden	X	X	
Skandinaviska Enskilda Banken - group	Sweden	X	X	X
SBAB Bank AB - group	Sweden	X	X	
Swedbank - group	Sweden	X	X	X
Svenska Handelsbanken - group	Sweden	X	X	X
Aktiebolaget Svensk Exportkredit	Sweden	X	X**	
Biser Topco S.à r.l.	Slovenia	X	X	
Nova Ljubljanska Banka d.d., Ljubljana	Slovenia	X	X	X
SKB banka d.d. Ljubljana	Slovenia	X		
Slovenska sporitelna, 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 Q3 2020 and Q1 2021. Individual figures are disclosed for Q4 2020 and Q2 2021.
The banks marked (**) are included in the transparency exercise in the 'other banks' bucket.

Annex II: Descriptive statistics from the EBA key risk indicators

The data shows the trend in risk indictors and is based on the sample of banks, which is regularly adjusted to take into account bank-specific developments; for example, banks that ceased activity or underwent a significant restructuring process are not considered further ([95]).

	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	Sep-20	Dec-20	Mar-21	Jun-21
Solvency	1 - Tier 1 capital ratio	Weighted average	13.6%	13.5%	13.9%	14.0%	14.5%	14.4%	14.6%	14.8%	15.0%	15.1%	15.3%	15.7%	16.0%	15.7%	15.7%	15.8%	15.8%	15.6%	15.7%	15.7%	16.3%	15.8%	16.3%	16.7%	17.1%	17.0%	17.1%
		First quartile	11.5%	11.5%	11.7%	12.0%	12.4%	12.6%	12.7%	12.8%	12.9%	12.9%	13.5%	13.7%	14.0%	14.0%	13.8%	13.7%	14.0%	14.1%	14.4%	14.5%	15.0%	14.3%	14.8%	15.3%	15.8%	15.7%	15.6%
		Median	13.7%	13.6%	13.6%	13.9%	14.6%	14.7%	14.9%	15.0%	15.5%	15.3%	16.0%	16.2%	16.4%	16.3%	16.2%	16.4%	16.3%	16.2%	16.1%	16.2%	16.7%	16.2%	16.9%	17.2%	18.0%	17.7%	17.6%
		Third quartile	16.4%	16.2%	17.4%	18.1%	17.9%	18.1%	18.7%	19.0%	20.3%	19.3%	19.7%	19.8%	21.3%	21.5%	21.8%	22.1%	20.3%	19.8%	19.8%	19.5%	20.3%	19.9%	20.2%	20.6%	21.3%	21.1%	21.3%
	2 - Total capital ratio	Weighted average	15.9%	15.9%	16.3%	16.5%	17.0%	16.9%	17.2%	17.5%	17.7%	17.8%	18.0%	18.3%	18.6%	18.2%	18.2%	18.3%	18.2%	18.0%	18.1%	18.1%	18.7%	18.2%	18.8%	19.2%	19.7%	19.5%	19.6%
		First quartile	13.5%	13.4%	13.7%	13.9%	14.6%	14.5%	14.5%	14.6%	14.5%	14.8%	15.1%	15.5%	15.7%	15.7%	15.9%	15.9%	15.8%	16.0%	16.2%	16.3%	16.9%	16.5%	17.1%	17.6%	18.1%	17.9%	17.9%
		Median	15.7%	15.6%	15.9%	16.2%	16.8%	16.8%	16.8%	17.3%	17.8%	17.4%	18.0%	18.0%	18.5%	18.2%	18.3%	18.1%	18.3%	18.2%	18.4%	18.3%	18.9%	18.1%	19.2%	19.3%	20.1%	20.0%	20.1%
		Third quartile	19.3%	19.4%	20.1%	21.0%	21.7%	21.6%	21.9%	22.5%	23.7%	24.0%	24.0%	23.2%	24.0%	23.6%	23.3%	24.2%	22.3%	21.7%	21.6%	21.4%	22.7%	21.6%	22.2%	22.5%	23.9%	23.3%	23.1%
	3 - CET1 ratio	Weighted average	12.9%	12.8%	13.1%	13.2%	13.6%	13.5%	13.7%	13.9%	14.0%	14.0%	14.2%	14.6%	15.0%	14.5%	14.4%	14.5%	14.6%	14.4%	14.5%	14.5%	15.0%	14.5%	15.0%	15.4%	15.8%	15.7%	15.8%
		First quartile	11.2%	11.3%	11.4%	11.7%	12.3%	12.4%	12.2%	12.4%	12.4%	12.4%	13.0%	13.1%	13.5%	13.3%	13.4%	13.3%	13.5%	13.4%	13.8%	13.7%	14.2%	13.4%	13.7%	14.2%	14.7%	14.4%	14.5%
		Median	13.1%	13.0%	12.9%	13.3%	13.8%	14.1%	14.2%	14.4%	14.7%	14.7%	15.2%	15.3%	15.8%	15.8%	15.7%	15.9%	15.7%	15.5%	15.5%	15.5%	15.9%	15.6%	16.2%	16.6%	17.2%	16.8%	17.2%
		Third quartile	15.6%	15.3%	15.9%	17.2%	17.0%	17.3%	17.5%	17.9%	18.9%	18.9%	19.1%	19.2%	20.1%	20.1%	20.9%	21.2%	20.2%	19.2%	19.4%	19.1%	19.6%	19.2%	19.6%	19.4%	20.3%	20.2%	20.1%
	4 - CET1 ratio (fully loaded)	Weighted average	11.5%	11.8%	12.0%	12.1%	12.8%	12.8%	13.0%	13.2%	13.3%	13.6%	13.8%	14.2%	14.6%	14.2%	14.1%	14.2%	14.3%	14.1%	14.2%	14.2%	14.8%	14.3%	14.7%	15.0%	15.5%	15.4%	15.5%
		First quartile	10.1%	10.3%	10.4%	10.7%	11.6%	11.5%	11.8%	11.8%	11.9%	12.0%	12.5%	12.6%	13.2%	12.6%	12.7%	12.5%	12.6%	12.7%	12.9%	13.0%	13.4%	13.0%	13.2%	13.5%	14.0%	14.0%	14.3%
		Median	11.8%	12.2%	12.3%	12.6%	13.4%	13.6%	13.6%	13.8%	14.5%	14.6%	14.6%	14.9%	15.5%	15.2%	15.4%	15.5%	15.4%	15.1%	15.3%	15.1%	15.8%	15.5%	16.0%	16.4%	16.5%	16.5%	16.4%
		Third quartile	15.1%	15.3%	15.0%	15.8%	16.4%	17.1%	17.6%	18.3%	18.8%	18.9%	19.1%	19.2%	20.1%	20.0%	20.5%	21.0%	19.9%	18.8%	19.0%	18.8%	19.5%	18.8%	19.2%	19.4%	20.2%	20.2%	20.0%

([95]) This table excludes data from Liechtenstein, Norwegian and UK banks, as described in the Introduction.

	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	Sep-20	Dec-20	Mar-21	Jun-21
Solvency	5 - Leverage Ratio	Weighted average								5.3%	5.4%	5.2%	5.3%	5.3%	5.6%	5.3%	5.3%	5.3%	5.5%	5.3%	5.4%	5.4%	5.7%	5.3%	5.3%	5.6%	6.0%	5.7%	5.9%
		First quartile								4.5%	4.7%	4.5%	4.7%	4.7%	4.9%	4.8%	4.7%	4.8%	5.0%	4.8%	4.8%	4.9%	5.0%	4.7%	4.8%	4.9%	5.2%	4.9%	5.3%
		Median								5.9%	5.8%	5.7%	5.8%	5.8%	6.1%	6.0%	6.2%	6.1%	6.2%	6.1%	6.3%	6.3%	6.5%	6.3%	5.9%	6.2%	6.3%	6.0%	6.3%
		Third quartile								7.9%	8.1%	7.7%	7.8%	8.0%	8.6%	8.9%	8.8%	8.5%	8.6%	8.7%	8.8%	8.7%	8.8%	8.5%	8.2%	8.5%	8.8%	8.2%	8.8%
	6 - Leverage Ratio (fully phased-in definition of Tier 1)	Weighted average								4.9%	5.0%	5.0%	5.1%	5.1%	5.4%	5.1%	5.1%	5.1%	5.3%	5.2%	5.2%	5.2%	5.6%	5.2%	5.1%	5.4%	5.8%	5.5%	5.7%
		First quartile								4.3%	4.4%	4.3%	4.5%	4.5%	4.8%	4.6%	4.6%	4.6%	4.9%	4.7%	4.7%	4.7%	4.9%	4.7%	4.6%	4.8%	5.1%	4.8%	5.1%
		Median								5.4%	5.5%	5.4%	5.6%	5.6%	5.9%	5.7%	5.9%	5.6%	5.8%	6.0%	6.0%	6.1%	6.3%	6.0%	5.7%	5.9%	6.1%	5.9%	6.1%
		Third quartile								7.5%	7.5%	7.5%	7.7%	7.8%	8.6%	8.1%	8.0%	7.8%	8.2%	8.4%	8.6%	8.6%	8.7%	8.3%	7.8%	8.2%	8.3%	7.8%	8.6%
Credit Risk and Asset Quality	7 - Ratio of non-performing loans and advances (NPL ratio)	Weighted average	7.4%	7.2%	7.0%	6.9%	6.7%	6.6%	6.3%	6.1%	5.9%	5.6%	5.1%	4.9%	4.7%	4.5%	4.2%	3.9%	3.7%	3.6%	3.5%	3.3%	3.1%	3.0%	2.9%	2.8%	2.6%	2.5%	2.3%
		First quartile	3.0%	2.8%	2.7%	2.6%	2.6%	2.4%	2.1%	2.2%	1.9%	1.6%	1.6%	1.6%	1.7%	1.4%	1.3%	1.3%	1.3%	1.4%	1.3%	1.3%	1.2%	1.2%	1.3%	1.1%	1.3%	1.1%	1.0%
		Median	6.4%	6.5%	6.5%	6.5%	5.8%	5.5%	5.3%	5.1%	4.8%	4.3%	4.0%	3.8%	3.5%	3.4%	3.1%	3.0%	3.0%	3.1%	3.0%	3.0%	2.7%	2.5%	2.5%	2.5%	2.3%	2.1%	2.1%
		Third quartile	16.2%	16.6%	16.1%	16.1%	15.5%	15.1%	14.6%	14.5%	13.5%	12.6%	10.1%	9.6%	8.1%	7.9%	7.3%	7.0%	5.9%	5.9%	5.4%	5.0%	4.3%	4.5%	4.4%	4.1%	3.6%	3.5%	3.3%
	8 - Coverage ratio of non-performing loans and advances	Weighted average	44.1%	44.0%	44.7%	44.8%	45.1%	45.1%	45.2%	45.6%	46.0%	46.4%	46.1%	45.8%	45.7%	47.9%	47.3%	47.1%	46.4%	46.6%	46.3%	45.9%	45.9%	46.1%	45.5%	45.5%	45.0%	44.7%	44.3%
		First quartile	34.2%	33.7%	33.4%	33.7%	32.9%	31.5%	32.9%	34.9%	33.6%	31.9%	30.9%	30.1%	29.6%	30.0%	29.7%	31.6%	31.0%	31.3%	30.5%	30.7%	30.6%	30.2%	29.6%	29.2%	29.1%	29.0%	27.4%
		Median	41.6%	42.3%	42.0%	42.2%	41.2%	40.9%	42.1%	41.6%	41.7%	40.3%	40.9%	41.0%	42.5%	42.5%	41.6%	41.1%	41.4%	41.4%	40.5%	41.2%	41.0%	41.8%	41.3%	41.2%	42.3%	41.6%	40.3%
		Third quartile	48.2%	48.6%	48.1%	48.5%	48.0%	48.2%	48.4%	47.9%	48.6%	48.2%	48.9%	49.0%	50.0%	51.0%	51.2%	51.4%	52.4%	52.6%	51.4%	51.2%	50.9%	51.3%	51.0%	50.6%	50.2%	51.3%	51.6%
	9 - Forbearance ratio for loans and advances	Weighted average	4.2%	4.2%	4.2%	4.1%	4.0%	4.0%	3.9%	3.8%	3.6%	3.4%	3.2%	3.0%	2.9%	2.7%	2.6%	2.5%	2.3%	2.2%	2.2%	2.1%	2.0%	1.9%	2.0%	2.0%	2.0%	2.0%	2.1%
		First quartile	1.3%	1.4%	1.2%	1.3%	1.3%	1.2%	1.1%	1.3%	1.3%	1.2%	1.0%	1.0%	0.9%	0.8%	0.7%	0.8%	0.7%	0.7%	0.8%	0.7%	0.7%	0.7%	0.9%	0.9%	0.9%	0.8%	0.9%
		Median	3.3%	3.4%	3.8%	3.7%	3.1%	3.1%	3.2%	3.2%	2.9%	2.7%	2.5%	2.5%	2.4%	2.5%	2.2%	2.0%	2.0%	2.1%	1.9%	1.8%	1.9%	1.9%	2.1%	2.1%	2.0%	2.1%	2.1%
		Third quartile	9.5%	10.7%	9.7%	10.1%	9.6%	9.6%	9.5%	9.6%	8.8%	8.8%	8.1%	7.7%	6.5%	6.0%	5.7%	5.6%	4.5%	5.0%	4.1%	3.9%	3.6%	3.9%	3.6%	3.8%	4.0%	4.1%	4.2%

	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	Sep-20	Dec-20	Mar-21	Jun-21
Credit Risk and Asset Quality	10 - Ratio of non-performing exposures (NPE ratio)	Weighted average	6.3%	6.1%	6.0%	5.9%	5.7%	5.6%	5.4%	5.3%	5.1%	4.8%	4.5%	4.3%	4.1%	3.9%	3.7%	3.5%	3.2%	3.1%	3.0%	2.9%	2.8%	2.6%	2.5%	2.4%	2.3%	2.2%	2.0%
		First quartile	2.4%	2.4%	2.4%	2.2%	2.2%	1.9%	1.8%	1.8%	1.5%	1.4%	1.4%	1.4%	1.4%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.1%	1.2%	1.1%	1.1%	1.0%	0.9%
		Median	5.2%	5.1%	4.9%	5.1%	4.7%	4.7%	4.4%	4.1%	4.0%	3.7%	3.4%	3.3%	3.0%	3.0%	2.8%	2.6%	2.5%	2.6%	2.5%	2.5%	2.2%	2.1%	2.1%	2.1%	2.0%	2.0%	1.8%
		Third quartile	13.2%	13.4%	13.2%	13.3%	12.8%	12.6%	12.1%	11.9%	11.2%	9.8%	8.2%	7.8%	6.8%	6.4%	5.7%	5.6%	4.8%	4.4%	4.1%	3.7%	3.5%	3.5%	3.4%	3.1%	3.0%	3.0%	2.8%
Profitability	11 - Return on equity	Weighted average	3.3%	6.8%	6.8%	6.2%	4.9%	5.5%	5.9%	6.0%	3.9%	7.7%	7.6%	7.6%	6.6%	6.9%	7.3%	7.2%	6.5%	6.3%	6.6%	6.4%	5.8%	1.2%	0.4%	2.4%	1.9%	7.6%	7.4%
		First quartile	-2.4%	2.8%	3.5%	3.5%	2.7%	1.9%	2.3%	2.5%	1.4%	3.0%	3.8%	3.6%	3.1%	3.9%	3.7%	4.1%	3.2%	3.0%	4.1%	4.3%	3.1%	-3.3%	0.0%	0.9%	0.9%	2.9%	3.7%
		Median	3.5%	6.5%	7.1%	7.0%	5.8%	5.0%	6.1%	5.9%	5.5%	6.2%	7.3%	7.1%	6.4%	6.8%	6.7%	6.9%	6.8%	6.3%	6.3%	6.6%	6.0%	1.3%	2.5%	3.6%	3.6%	6.0%	7.1%
		Third quartile	7.8%	10.0%	10.2%	10.3%	8.7%	8.4%	9.9%	10.5%	9.6%	11.0%	10.9%	10.7%	10.6%	9.8%	9.9%	9.6%	9.4%	9.1%	9.8%	10.0%	9.0%	5.0%	5.2%	6.1%	6.0%	9.5%	9.8%
	12 - Return on assets	Weighted average	0.2%	0.4%	0.4%	0.4%	0.3%	0.3%	0.4%	0.4%	0.3%	0.5%	0.5%	0.5%	0.4%	0.5%	0.5%	0.5%	0.4%	0.4%	0.4%	0.4%	0.4%	0.1%	0.0%	0.2%	0.1%	0.5%	0.5%
		First quartile	-0.1%	0.2%	0.2%	0.2%	0.2%	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%	0.1%	0.0%	0.2%	0.2%
		Median	0.2%	0.4%	0.4%	0.4%	0.4%	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%	0.3%	0.3%	0.4%	0.5%
		Third quartile	0.5%	0.7%	0.7%	0.7%	0.6%	0.6%	0.7%	0.7%	0.7%	0.7%	0.8%	0.8%	0.9%	0.8%	0.9%	0.9%	0.8%	0.8%	0.8%	0.8%	0.6%	0.4%	0.3%	0.4%	0.5%	0.7%	0.8%
	13 - Cost to income ratio	Weighted average	62.3%	61.5%	59.9%	60.8%	62.5%	67.2%	63.5%	63.3%	64.8%	64.4%	61.8%	62.0%	63.2%	66.3%	64.6%	64.0%	64.9%	68.0%	65.4%	64.5%	64.9%	72.2%	67.0%	65.0%	65.5%	63.8%	64.0%
		First quartile	46.1%	45.0%	46.3%	47.3%	48.3%	51.2%	49.9%	49.8%	50.2%	49.7%	50.2%	49.5%	50.2%	52.4%	51.5%	50.4%	50.6%	52.9%	51.8%	51.2%	53.1%	56.7%	54.1%	53.9%	52.0%	54.0%	50.1%
		Median	58.8%	57.1%	56.4%	57.6%	59.0%	63.9%	59.3%	58.8%	61.1%	59.9%	58.2%	58.1%	58.9%	62.7%	61.9%	61.5%	62.5%	65.5%	64.2%	62.4%	65.1%	67.8%	65.7%	64.9%	64.7%	63.5%	62.2%
		Third quartile	69.7%	67.4%	65.2%	66.3%	67.4%	73.8%	70.7%	70.5%	73.2%	74.2%	70.6%	71.5%	71.0%	75.9%	73.8%	70.0%	70.9%	75.1%	72.8%	72.1%	73.4%	86.0%	80.2%	74.4%	73.2%	77.0%	74.5%
	14 - Net interest income to total net operating income	Weighted average	58.2%	54.6%	54.5%	56.2%	56.8%	57.9%	56.3%	57.1%	57.0%	55.8%	55.2%	56.8%	57.0%	56.6%	57.0%	57.6%	59.1%	58.5%	58.5%	59.1%	59.1%	62.8%	60.2%	59.7%	58.9%	53.6%	55.0%
		First quartile	47.5%	41.6%	45.8%	48.3%	47.9%	50.7%	48.7%	49.4%	49.4%	48.5%	49.3%	52.6%	47.9%	47.4%	49.7%	50.3%	52.9%	49.7%	51.8%	53.5%	53.0%	51.8%	53.8%	54.5%	52.0%	44.8%	48.5%
		Median	60.3%	56.2%	58.7%	58.6%	60.4%	63.0%	63.2%	62.2%	62.5%	61.0%	61.6%	62.8%	63.1%	63.1%	65.9%	65.0%	65.7%	64.8%	64.1%	64.1%	63.8%	66.9%	65.9%	64.6%	62.5%	60.2%	60.3%
		Third quartile	74.9%	73.4%	72.7%	76.2%	76.6%	80.1%	76.1%	75.8%	75.5%	73.9%	71.8%	73.4%	72.6%	76.2%	73.9%	72.8%	74.3%	75.6%	73.4%	73.1%	73.4%	81.9%	79.0%	77.3%	75.3%	70.9%	71.6%

	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	Sep-20	Dec-20	Mar-21	Jun-21
Profitability	15 - Net fee and commission income to total net operating income	Weighted average	27.9%	27.5%	27.3%	27.6%	27.9%	28.6%	28.0%	28.3%	28.2%	28.6%	28.6%	29.3%	29.6%	30.0%	30.2%	30.1%	30.6%	30.2%	30.0%	30.4%	30.7%	33.2%	30.6%	30.4%	30.8%	30.5%	31.6%
		First quartile	14.9%	14.0%	13.7%	13.5%	12.8%	14.7%	12.6%	13.3%	13.4%	13.4%	13.6%	13.8%	14.8%	14.5%	14.5%	15.1%	16.1%	16.9%	17.1%	17.2%	17.1%	17.4%	16.4%	16.3%	16.1%	16.2%	16.6%
		Median	23.0%	23.7%	22.0%	23.2%	22.3%	24.3%	24.0%	24.2%	23.5%	24.2%	25.1%	24.8%	25.8%	26.7%	27.0%	25.7%	26.6%	26.6%	26.3%	26.7%	27.1%	28.6%	27.3%	27.1%	26.4%	26.0%	26.5%
		Third quartile	31.2%	32.6%	31.5%	32.1%	31.1%	33.3%	33.5%	32.9%	33.4%	33.3%	33.5%	33.6%	33.8%	34.8%	35.2%	34.1%	35.5%	35.1%	34.8%	35.2%	34.8%	41.9%	37.7%	36.8%	36.0%	37.8%	37.4%
	16 - Net trading income to total net operating income	Weighted average	5.7%	7.0%	5.2%	5.2%	4.8%	3.0%	3.7%	4.8%	5.3%	9.6%	8.5%	8.4%	8.2%	4.1%	5.2%	4.3%	1.6%	14.9%	10.9%	8.6%	8.4%	-20.1%	-1.6%	-0.6%	4.6%	12.1%	7.8%
		First quartile	-0.5%	-1.2%	-1.7%	-1.5%	-0.8%	-1.8%	-1.2%	-0.2%	-0.1%	0.0%	0.1%	0.1%	0.0%	-0.4%	-0.3%	-0.2%	-0.3%	-0.1%	0.0%	0.0%	-0.1%	-5.4%	-3.0%	-2.0%	-0.3%	0.1%	0.7%
		Median	1.2%	1.0%	0.8%	1.4%	0.8%	0.2%	0.5%	1.0%	1.6%	1.9%	2.1%	2.3%	1.5%	1.1%	1.0%	0.7%	0.5%	1.9%	1.1%	1.2%	1.2%	-0.3%	0.2%	0.0%	0.4%	2.6%	4.1%
		Third quartile	5.2%	7.5%	5.4%	4.1%	4.0%	3.8%	3.8%	4.4%	5.6%	7.7%	7.8%	7.2%	6.6%	5.2%	5.0%	4.4%	2.6%	9.7%	6.7%	6.1%	4.3%	2.7%	2.8%	2.3%	3.3%	10.8%	9.3%
	17 - Net interest margin	Weighted average	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.4%	1.4%	1.4%	1.5%	1.4%	1.4%	1.4%	1.5%	1.4%	1.3%	1.3%	1.3%	1.2%	1.2%
		First quartile	1.1%	1.0%	1.1%	1.0%	1.1%	1.0%	1.0%	1.0%	1.0%	0.9%	0.9%	0.9%	0.9%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	0.9%	0.9%
		Median	1.4%	1.4%	1.5%	1.5%	1.5%	1.4%	1.4%	1.4%	1.4%	1.3%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.3%	1.3%	1.3%	1.2%	1.2%
		Third quartile	1.9%	1.8%	1.8%	1.9%	1.9%	2.1%	2.1%	2.1%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.1%	2.0%	2.1%	2.1%	2.1%	2.1%	2.1%	2.0%	1.9%	1.9%	1.9%	1.7%	1.8%
	18 - Cost of Risk	Weighted average														0.6%	0.5%	0.5%	0.5%	0.6%	0.5%	0.5%	0.5%	0.8%	0.9%	0.7%	0.7%	0.5%	0.5%
		First quartile														0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.3%	0.4%	0.3%	0.3%	0.1%	0.1%
		Median														0.3%	0.3%	0.2%	0.3%	0.3%	0.4%	0.3%	0.3%	0.7%	0.8%	0.7%	0.7%	0.4%	0.3%
		Third quartile														0.6%	0.7%	0.6%	0.6%	0.6%	0.6%	0.6%	0.7%	1.1%	1.3%	1.0%	1.0%	0.8%	0.7%

	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	Sep-20	Dec-20	Mar-21	Jun-21
Funding and Liquidity	19 - Loan-to-deposit ratio (for households and non-financial corporations)	Weighted average	133.5%	134.8%	134.7%	132.9%	130.5%	130.9%	129.8%	129.2%	127.4%	126.5%	125.3%	124.7%	124.1%	125.5%	125.3%	125.2%	123.8%	122.9%	122.3%	121.9%	121.0%	120.7%	115.3%	112.9%	111.5%	110.3%	108.9%
		First quartile	98.7%	99.1%	101.7%	100.7%	95.2%	98.0%	97.1%	93.2%	93.5%	94.2%	91.0%	91.6%	90.3%	89.7%	90.3%	95.7%	90.9%	88.4%	90.9%	92.3%	89.4%	87.9%	85.1%	84.4%	81.0%	79.0%	78.8%
		Median	124.2%	124.5%	121.5%	120.9%	120.1%	121.0%	119.1%	117.8%	116.4%	117.7%	114.8%	112.3%	113.5%	112.6%	112.1%	112.0%	110.2%	107.2%	106.0%	104.8%	105.6%	104.0%	100.7%	99.5%	97.5%	97.0%	97.2%
		Third quartile	196.5%	189.5%	191.0%	189.6%	190.5%	178.3%	183.9%	189.2%	195.1%	182.7%	163.9%	179.2%	174.7%	180.0%	184.1%	195.7%	188.1%	164.1%	168.4%	169.2%	171.7%	167.4%	165.2%	156.2%	162.2%	153.9%	149.7%
	20 - Asset encumbrance ratio	Weighted average	26.3%	26.7%	26.4%	26.0%	25.8%	26.0%	26.1%	26.7%	26.3%	27.1%	27.0%	26.5%	26.2%	26.7%	26.5%	26.6%	25.9%	26.1%	25.9%	25.9%	25.1%	26.7%	27.5%	27.9%	27.9%	28.8%	29.1%
		First quartile	12.3%	12.4%	12.9%	12.5%	13.2%	11.3%	11.9%	12.2%	11.8%	10.3%	10.4%	11.3%	10.2%	10.7%	10.6%	10.8%	11.5%	9.8%	10.5%	10.4%	9.8%	11.1%	12.7%	12.7%	11.8%	12.6%	12.7%
		Median	24.0%	24.6%	24.3%	24.8%	25.4%	24.6%	24.9%	24.1%	23.6%	24.4%	23.3%	23.4%	22.8%	22.4%	22.4%	22.9%	21.8%	20.9%	20.6%	19.4%	18.6%	22.0%	25.2%	25.0%	24.8%	25.2%	25.8%
		Third quartile	38.5%	38.4%	36.1%	36.3%	35.4%	35.8%	35.2%	34.6%	34.7%	35.9%	32.7%	32.4%	32.7%	32.7%	32.3%	32.9%	33.0%	30.9%	30.2%	29.5%	29.2%	31.2%	31.5%	32.9%	32.2%	34.1%	34.5%
	21 - Liquidity coverage ratio (%)	Weighted average								140.1%	139.3%	144.6%	144.6%	142.4%	146.0%	144.2%	143.2%	144.1%	146.3%	150.7%	147.7%	147.2%	148.4%	149.0%	166.2%	171.3%	173.2%	173.8%	174.5%
		First quartile								125.8%	125.4%	131.6%	134.5%	131.9%	138.5%	139.8%	138.1%	136.2%	136.3%	146.3%	139.0%	139.9%	144.6%	142.3%	159.4%	161.7%	163.8%	164.3%	167.5%
		Median								147.6%	151.2%	158.9%	156.4%	155.1%	166.0%	162.5%	159.6%	161.4%	168.2%	174.8%	174.5%	168.8%	169.6%	173.3%	191.0%	189.7%	196.3%	203.5%	207.4%
		Third quartile								243.7%	235.1%	237.6%	235.9%	254.7%	214.6%	237.1%	217.6%	245.3%	241.0%	238.6%	248.0%	238.3%	225.3%	244.8%	258.4%	258.3%	254.4%	270.5%	265.7%

GETTING IN TOUCH WITH THE EU

In person
All over the European Union there are hundreds of Europe Direct information centres. You can find the address of the centre nearest you at: https://europa.eu/european-union/contact_en

On the phone or by email
Europe Direct is a service that answers your questions aboutthe European Union.
You can contact this service:
—by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),
—at the following standard number: +32 22999696 or
—by email via: https://europa.eu/european-union/contact_en

FINDING INFORMATION ABOUT THE EU

Online
Information about the European Union in all the official languages of the EU is available on the Europa website at: https://europa.eu/european-union/index_en

EU Publications
You can download or order free and priced EU publications at:
https://publications.europa.eu/en/publications.
Multiple copies of free publications may be obtained by contacting Europe Direct or your local information centre (see https://europa.eu/european-union/contact_en).

EU law and related documents
For access to legal information from the EU, including all EU law since 1952 in all the official language versions, go to EUR- Lex at: http://eur-lex.europa.eu

Open data from the EU
The EU Open Data Portal (https://data.europa.eu/euodp/en/home) provides access to datasets from the EU. Data can be downloaded and reused for free, for both commercial andnon-commercial purposes.

EUROPEAN BANKING AUTHORITY

Tour Europlaza, 20 avenue André Prothin,CS 30154
92927 Paris La Défense CEDEX, FRANCE

Tel. +33 186 52 70 00
E-mail: info@eba.europa.eu

https://eba.europa.eu

Publications Office
of the European Union