RISK ASSESSMENT REPORT OF THE EUROPEAN BANKING AUTHORITY

DECEMBER 2023

EBA EUROPEAN BANKING AUTHORITY

PDF	ISBN 978-92-9245-870-6	ISSN 1977-9097	doi:10.2853/634573	DZ-AC-23-001-EN-N
Print	ISBN 978-92-9245-869-0	ISSN 1977-9089	doi:10.2853/42223	DZ-AC-23-001-EN-C

Luxembourg: Publications Office of the European Union, 2023

© European Banking Authority, 2023
Reproduction is authorised provided the source is acknowledged.
For any use or reproduction of photos or other material that is not under the copyright of the European Banking Authority, permission must be sought directly from the copyright holders.

RISK ASSESSMENT REPORT OF THE EUROPEAN BANKING AUTHORITY

DECEMBER 2023

EBA EUROPEAN BANKING AUTHORITY

Contents

List of Figures

Abbreviations

AC	amortised cost
AI	artificial Intelligence
AML	anti-money laundering
AMLA	Anti Money Laundering Authority
APP	asset purchase programme
ASF	available stable funding
ASW	asset swap
AT1	Additional Tier 1
BCBS/FSI	Basel Committee on Banking Supervision/Financial Stability Institute
BDIY	Baltic Dry Index
BIS	Bank for International Settlements
bps	basis points
BRRD	Bank Recovery and Resolution Directive
CA	Competent Authority
CBDC	central bank digital currencies
CDS	credit default swap
CET1	Common Equity Tier 1
CFT	countering the financing of terrorism
CIR	cost-to-income ratio
CoE	cost of equity
CoR	cost of risk
COREP	Common Reporting
CRD	Capital Requirements Directive
CRE	commercial real estate
CRR	Capital Requirements Regulation
CS	Credit Suisse
CSRD	Corporate Sustainability Reporting Directive
CTPP	critical ICT third-party provider
CVA	credit valuation adjustment
DDoS	Distributed Denaial of Servicies
DGS	deposit guarantee schemes
DLT	distributed ledger technology
DORA	Digital Operational Resilience Act
EBA	European Banking Authority
EC	European Commission
ECB	European Central Bank
ECLs	expected credit losses
EEA	European Economic Area
ENISA	EU Agency for Cybersecurity
ESAs	European Supervisory Agencies
ESG	Environmental, Social and Governance
ESRB	European Systemic Risk Board
ETF	Exchange traded fund
EU	European Union
EU-SCICF	pan-European Union Systemic Cyber Incident Coordination Framework
EVE	economic value of equity
EuReCA	European reporting System for material CFT/AML weaknesses
EURIBOR	Euro Interbank Offered Rate
EU-SCICF	pan-European Systemic Cyber Incident Coordination Framework
FINREP	Financial reporting
Fintechs	financial technology
FSB	Financial Stability Board
FVtOCI	fair value through other comprehensive income
GDP	gross domestic product
GFC	global financial crisis
GSCPI	Global Supply Chain Pressure Index
G-SIIs	Global Systemically Important Institutions
HH	household
HoldCo	holding company
HQLA	high-quality liquid assets
HTM	held to maturity
ICT	information and communication technology

IFRS	International Financial Reporting Standard
IMF	International Monetary Fund
IPCC	Intergovernmental Panel on Climate Change
IRB	internal ratings based
IRRBB	interest rate risk on banking book
IT	Information technology
ITS	implementing technical standards
LCR	liquidity coverage ratio
LDI	Liability Driven Investment
LGD	loss given default
LTV	loan-to-value
M&A	merges and acquisitions
ML	machine learning
MREL	minimum requirement for own funds and eligible liabilities
MRO	main refinancing operations
MRR	minimum reserve requirements
NBFI	non-bank financial institutions
NCAs	National Competent Authorities
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
NSFR	net stable funding ratio
NTI	net trading income
OCI	other comprehensive income
OCR	overall capital requirements
OECD	Organisation for Economic Co-operation and Development
O-SIIs	Other Systemically Important Institutions
P&L	profit and loss
p.p.	percentage points
P2G	Pillar 2 Guidance
PD	probability of default
PEPP	Pandemic Emergency Purchase Programme
PSD2	Payment Services Directive 2
PSPs	payment service providers
PtB	price to book
QIS	Quantitative impact study
QoQ	quarter on quarter
QT	quantitative tightening
RAQ	risk assessment questionnaire
RAR	risk assessment report
REITs	real estate investment trusts
RF	resolution funds
RoA	return on assets
RoE	return on equity
RRE	residential real estate
RRI	retail risk indicators
RSF	required stable funding
RWA	risk-weighted assets
SME	small and medium-sized enterprise
SNP	senior non-preferred senior
SRB	Systemic Risk Board
STR	suspicious transaction
SVB	Silicon Valley bank
T1	Tier 1 capital
T2	Tier 2 capital
TF	terrorist financing
TLAC	total loss absorbing capacity
TLTRO	targeted long-term refinancing operation
TREA	total risk exposure amount
TFF	title transfer facility
UK	United Kingdom
US	United States
YE	year end
YtD	year to date
YoY	year on year

Executive summary

Macroeconomic uncertainty remains elevated. Economic growth in the European Union and European Economic Area (EU/EEA) has stagnated in 2023 and the outlook remains uncertain. Inflationary pressures have proven persistent despite lower energy prices. Inflation is expected to remain above central bank targets for the next quarters. Geopolitical risks have further increased amid the war in Ukraine and the Middle East crisis, but also tensions for instance in the Caucasus and between China and Taiwan. Trade tensions between the US, Europe and China add to the overall uncertainty.

Climate-related and broader ESG risks are increasingly in banks' focus. Institutions do not only bear the risk of possible deterioration in their asset quality through the occurrence of climate-related physical risk events, but they are also subject to transition risks through their lending and investment activities, notably those banks with exposures towards sectors that highly contribute to climate change. ESG factors are potential triggers of financial risks to banks' balance sheets, but also a source of reputational risk. At the same time, the integration of ESG considerations in banks' funding and lending activities is increasing. Banks consider it as a key priority going forward to offer sustainable lending to a broad spectrum of clients, including retail, despite the obstacles identified by the banks, such as lack of data, transparency and regulatory uncertainty.

The impact of higher interest rates resulting from monetary policy tightening continues to affect economies worldwide. This impact has not yet fully been materialised, but it has so far contributed to the slowdown in residential real estate (RRE) markets inter alia due to the increasing cost of mortgages. The commercial real estate (CRE) market is additionally challenged by structural factors. Turmoil in financial markets, such as at United States (US) regional banks triggered by losses incurred in US banks' held to maturity (HTM) portfolio, or in the United Kingdom's (UK) insurance sector, were not least a result of the abrupt change in the interest rate environment.

Banks' profits benefit from higher interest rates. Monetary policy tightening helped banks to increase their net interest income (NII) thanks to higher net interest margins (NIMs). EU/EEA banks' return on assets (RoA) and return on equity (RoE) were reported at their highest levels since the global financial crisis (GFC), reaching 0.7% and 11% respectively. Although this recovery has been broadly based, some banks benefited more than others depending on their business model or their asset and liability structure. Profitability could slow down amid low loan demand and subdued asset growth, and as funding may become more expensive,negatively affecting NIMs. Already high administrative expenses are also rather set to grow amid pressure on wages, and impairments might potentially rise.

Lending growth slowed down as demand is negatively affected by increased interest rates. At the same time macroeconomic uncertainty affected banks' risk appetite. As a result, banks have markedly slowed down their lending business. This effect was more pronounced in mortgage lending as demand for house purchases declined and banks tightened their credit standards. An increasing number of banks appear reluctant to increase CRE and other corporate lending going forward. The slowdown in lending could create a negative feedback loop on economic growth dynamics.

Signs of asset quality deterioration are limited. Despite deteriorating macroeconomic parameters over the past year, banks' asset quality has remained relatively stable. The non-performing loan (NPL) ratio was at its all-time low of 1.8% in June 2023. However, during the first half of this year NPL inflows were higher than outflows, and banks still reported a relatively high share of their loans as stage 2 loans (9.1% of loans). The impact is more evident for household loans, including mortgage loans. Concerns around real estate markets are also manifested in banks' rising provisioning against real estate exposures. The pandemic has led to a deterioration in asset quality for its strongly affected sectors, while for instance energy-intensive sectors suffered from rising energy costs following the

outbreak of the Russian war. The EU banking sector's global footprint makes it vulnerable to geopolitical risks as well as idiosyncratic developments in certain markets, such as US CRE exposures. Vulnerabilities for banks may also arise through their sovereign exposures, including from falling valuations of debt securities, or through debt sustainability concerns for over-indebted sovereigns.

Banks have increased their reliance on market-based funding. The overall issuance of market-based funding has gone up, as have overall market-funding costs. Going forward, higher market-based funding costs increase pressure to raise more deposits, which may require banks to increase deposit remuneration, which has been so far rather insulated from higher central bank rates (low "deposit betas"). It could also challenge some banks to meet or refinance minimum requirements for own funds and eligible liabilities (MREL). On the latter, the EBA estimates that out of 236 resolution groups included in its MREL monitoring, 57 banks, representing 13% of the sample in terms of total assets, have not yet reached their MREL targets as of Q1 2023. Even though the shortfall appears marginal at 0.4% of risk-weighted assets (RWA) of the total sample, it reaches between around 4% and 8% in some countries.

Two-thirds of banks have so far issued ESG bonds. The issuance volume of green and sustainable bonds increased in the first nine months of this year compared to the first nine months of 2022, which was mainly attributable to strongly increased green senior non-preferred (SNP) bonds and bonds issued from holding companies (HoldCos). However, the ratio of green bonds to total bank debt issuance volume declined in 2023 as total bank instruments issuance volume grew faster than green bond issuance volume.

Liquidity remains high albeit with a decreasing trend. A liquidity coverage ratio (LCR) of 160.9% remains at robust levels yet started normalising from the highest points previously reported. The decline in the LCR was mainly due to a decrease of banks' liquid assets. This was driven by a decline in cash and reserves, which still remain the most important part of liquid assets, with a share of 60%. The share of government assets and level 1 securities rose to 21% and 11% of total liquid assets, respectively. The changes in liquid asset composition were not least driven by the quantitative tightening (QT) of central banks and the European Central Bank's (ECB) maturing targeted long-term refinancing operation 3 (TLTRO-3).

Bank capital levels reach new highs. The EU banking sector's capital ratios reached new historic highs in June 2023 as banks reported an average CET1 ratio of 16.0%. Banks' headroom above requirements remained at comfortable levels. The leverage ratio has also increased by around 40 bps and stood at 5.7%. Retained earnings boosted banks' capital, while stagnating lending volumes and lower market risk kept RWA from increasing. Dividend payments and share buy-backs were at record levels in 2022, with EU/EEA banks distributing almost EUR 63bn to shareholders, which compares with EUR 48bn that banks had planned for at the beginning of 2022.

Operational risk has increased in recent years, partly driven by geopolitical tensions. Increasing risks include the risk of loss from internal failures or external events, misconduct, legal issues and risk of fraud. In addition, in a context of digitalisation and growing importance of new financial technologies, banks become more vulnerable to digital and cyber risks. Banks also face financial crime, money laundering and terrorist financing risks.

Introduction

This report describes the main developments and trends in the EU/EEA banking sector since June 2022 and provides the EBA outlook on the main risks and vulnerabilities.[1] As in 2022, the December 2023 risk assessment report (RAR) is published along with the EU-wide 2023 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 questionnaire (RAQs) addressed to banks,
- 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 164 banks from 30 EEA countries (131 banks at the highest EU/EEA level of consolidation from 26 countries).[2] Based on total assets, the sample covers about 80% of the EU/EEA banking sector. In general, the risk indicators and other supervisory-reporting-based charts and analysis 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] When referring to countries in the following, respective data is based on the sample of banks applicable for this jurisdiction (see Annex I) if not otherwise stated.

The MREL-related data in this report is based on reporting on MREL and total loss absorbing capacity (TLAC), which covers a sample of 236 banks.[4] The text and figures in this report refer to weighted average ratios unless otherwise indicated.[5] The analysis presented in some of the text boxes is based on the entire population of EU/EEA banking groups to cover small institutions in the analysis. In selected cases, some of the analysis covered in this RAR is based on data from other reporting and data submissions, such as payment incident and payment fraud reporting under the Payment Services Directive 2 (PSD2) as well as selected data points from EU Quantitative Impact Study (QIS) reporting (monitoring exercise). Respective analysis is marked accordingly.

The RAQ is conducted by the EBA on a semi-annual basis, with one questionnaire addressed to banks.[6] Answers to the questionnaire were provided by 85 European banks (Annex I) during August and September 2023. 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/EEA banking sector. The cut-off date for the market data presented in the RAR was end of September 2023, unless otherwise indicated.

[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 2023.

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

[4] As submission dates for MREL-related reporting are later than for supervisory-related reporting (COREP, FINREP, etc.) the MREL data in this report is as of March 2023. See also the EBA's MREL Dashboard as of March 2023.

[5] There might be slight differences between some of the risk indicators covered in the Q2 2023 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.

[6] 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 2023) also include explanations of the questionnaire and the analysis of the RAQ responses.

Along with the RAR, the EBA is disclosing bank-by-bank data as part of the 2023 EU-wide transparency exercise for four reference dates (September 2022, December 2022, March 2023 and June 2023). 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 2023 transparency exercise includes 123 banks from 26 countries at the highest level of consolidation in the EU/EEA as of June 2023.[7] The EU-wide transparency exercise relies entirely on Common Reporting (COREP) / financial reporting (FINREP) data.

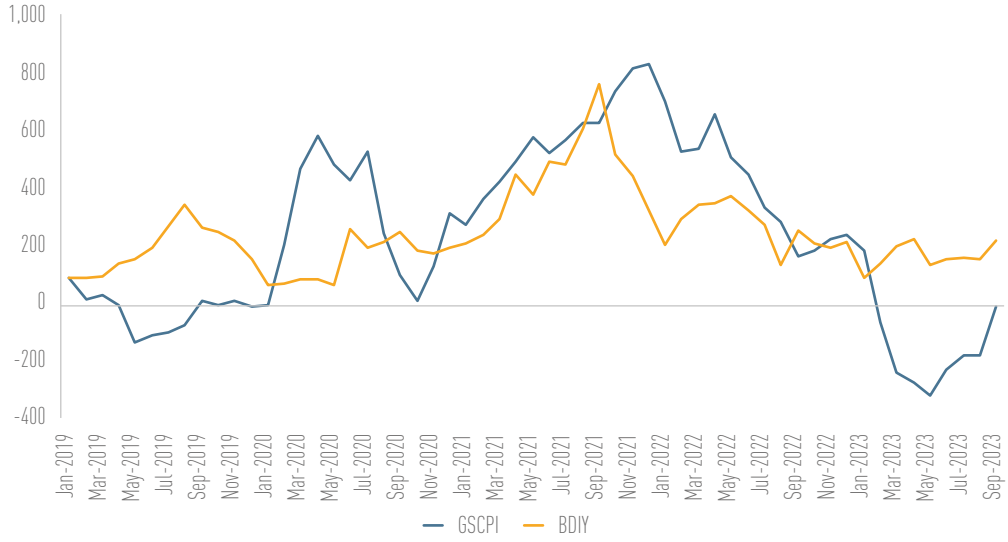
[7] The figures for the banks not participating in the EU transparency exercise are disclosed in an aggregate manner and at the highest level of consolidation in the category "Other banks". This is to allow users to reconcile with the EBA's full population of EU/EEA largest institutions.

1. Macroeconomic environment and market sentiment

The post-pandemic global and European economies are characterised by stagnant economic growth, high inflation and high levels of interest rates. Geopolitical tensions caused by the ongoing invasion of Ukraine from Russia, the Middle East crisis, but also the tensions in the Caucasus as well as between China and Taiwan, and the trade tensions between China and Western countries have added to the geopolitical risks and increase uncertainty and downside risks in the economic outlook. These events do not only take a huge humanitarian toll but have also a material impact on supply chains which has created inflationary pressures not seen for many decades in Europe (Figure 1).

Inflationary pressures have also proved stickier than initially anticipated, eroding households' real income. In the EU, core inflation was mainly supported by wage growth in services and persistent demand pressure in the service sector due to the post-pandemic momentum.([8]) Elevated inflation led central banks to tighten their monetary policies at an unprecedented pace, which had an impact on consumer and business confidence but also translated into weakening demand.

Figure 1: Main global supply chain indicators: Global Supply Chain Pressure Index (GSCPI) and Baltic Dry Index (BDIY)
Source: Bloomberg



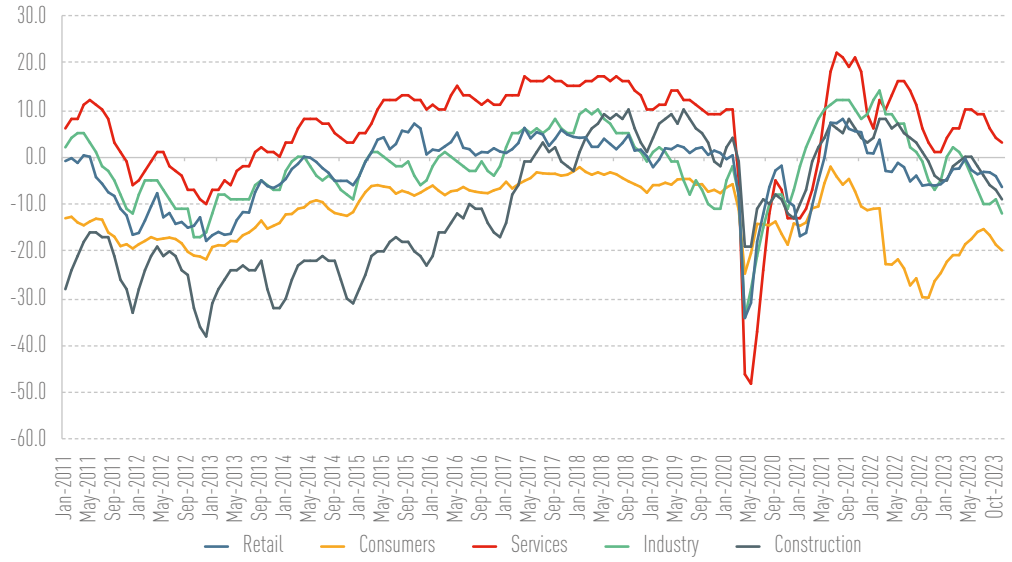
Stagnant and uncertain economic growth globally

The EU gross domestic product (GDP) growth forecast decreased to 0.6% (from 0.8%) for 2023, according to the European Commission's Autumn Economic Forecast. The retail trade and industrial production continue to be above their pre-pandemic levels but are slowing down in line with the trend in the overall EU economy. Despite the normalisation of the supply chain, external demand remained weak and exports below the pre-pandemic level (Figure 1). The consumer confidence indicator's variables, i.e. past and expected household financial situation, intentions to make major purchases and the general economic situation in their country, remain below their pre-pandemic levels. They also remain below their long-term averages, even as inflation pressures have recently eased (Figure 2).([9])

([8]) See the European Commission Autumn 2023 Economic Forecast from November 2023.

([9]) See the European Commission Autumn 2023 Economic Forecast from November 2023.

Figure 2: EU confidence indicators
Source: Eurostat



The global real GDP growth came back to pre-pandemic levels; the latest forecast for 2023 and 2024 is at 3% for each year, according to the International Monetary Fund (IMF). After a strong first quarter in 2023 (1% QoQ), global growth is estimated to have slowed to 0.5% QoQ in the second quarter.[10]

The EU labour market continued to be resilient despite the stagnant economic growth and high inflationary pressures. In September 2023, the unemployment rate remained stable and close to its lowest levels in the EU (6.0%) and the euro area (6.5%). Nevertheless, some discrepancies among countries and sectors were evident.[11]

The measures to ensure economic resilience during the pandemic have weighed on the fiscal debt, with an increase of average EU government debt of 4.1% compared to the beginning of 2022. The wind-down of public support measures has also negatively impacted economic growth in some countries.

The US continued to grow and the growth forecasts have been revised upwards by 0.3 percentage points for 2023 (to 2.1%) and 0.5 percentage point for 2024 (to 1.5%) given strong business investment in the second quarter and resilient consumption growth. However, savings accumulated during the pandemic are getting less and wage growth is slowing down. A more severe growth reduction is expected in the UK for 2023, where GDP is expected to grow by 0.5% in 2023, compared to 4.1% in the previous year.[12]

For emerging markets, average growth expectations remained at around 4% for both 2023 and 2024. There is a wide discrepancy across these countries. For example, India and Indonesia were assumed to steadily grow in 2023 and 2024, by around 6% and 5% respectively, while in Latin America projections are lower than for other emerging countries.[13] In addition, the Middle East crisis has made the economic outlook highly uncertain.

China's weak economic outlook in the second quarter has caused concerns globally. The poor performance of the labour market, especially of youth employment, has resulted in a cut of the GDP growth forecast from 5.5% to 4.2% in 2024 according to the IMF. Sources have reported a confidence crisis expressed by a high level of savings, a slowdown of investments and worries around the real estate market performance in China. Following the difficulties of the second quarter, the Chinese government started the implementation of policy easing measures to support private consumption and real estate transactions.

Energy prices retreated yet volatility remains

During 2023, the prices of both oil and gas experienced a significant reduction with respect to the peaks reached during 2022, with the gas prices dropping by around 80% in

[10] See the IMF World Economic Outlook, October 2023.

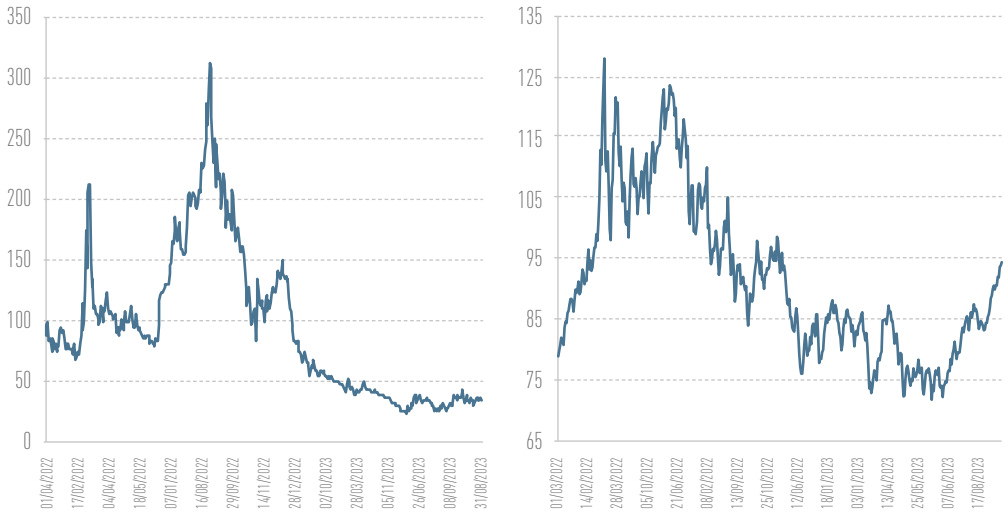
[11] See the European Statistical Recovery Dashboard of September.

[12] See the IMF World Economic Outlook, October 2023.

[13] See the OECD Economic Outlook, Interim Report, September 2023 and IMF World Economic Outlook, October 2023.

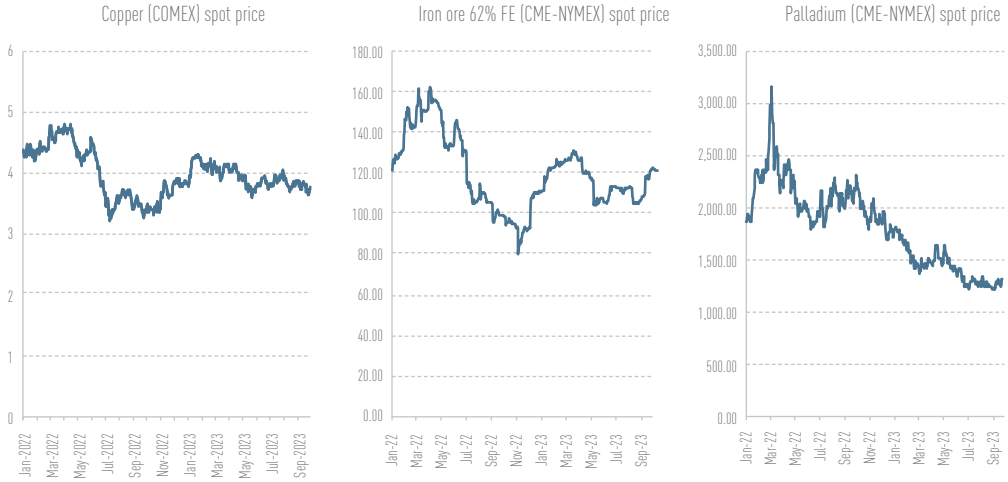
September 2023 compared to their peaks in August 2022. On the other hand, while the oil price also followed a decreasing trend, it has been more volatile as it is more affected by global macroeconomic uncertainty. The price of Brent crude oil has increased materially since July 2023 and has recently picked up pace, not least due to the Middle East crisis (Figure 3).

Figure 3: Dutch Title Transfer Facility (TTF) natural gas price and Brent crude oil price
Source: Bloomberg



Other commodities showed different pricing trends following their peak when the Russian war broke out. Whereas, for instance, iron ore and copper moved rather sidewards after a contraction following the Russian war; palladium showed a more continuous decline also in the following months. In any case the price dynamics for commodities have remained characterised by volatility (Figure 4).

Figure 4: From the left, iron ore 62% FE (CME-NYMEX) one, copper (COMEX) and palladium (CME-NYMEX) one), all spot prices
Source: S&P Capital IQ

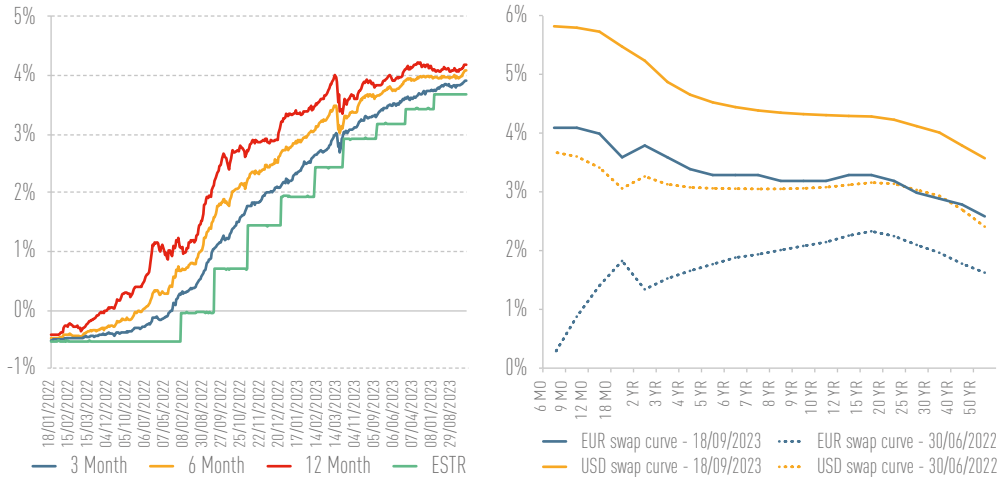


Inflation pressures are receding, but at a lower pace than expected

The inflationary pressures moderated recently. Global headline inflation was down from 7.4% in October 2022 to 4.2% in June 2023. This is not least owing to lower energy prices and the easing of supply chain pressures. Another factor contributing to the easing of pressure is weaker than initially anticipated Chinese internal demand after COVID-19-related confinement measures were lifted. Yet core inflation has proved more persistent. Global inflation, excluding energy and food, stood at 4.9%. In the euro area, the reduction in energy prices helped the headline inflation to move below 4% in October 2023 (2.9% for the euro area), while food, industrial goods and services inflation remained elevated. Although economists expect easing of services prices in the last quarter of the year, the recent increases in energy prices, also due to Middle East crisis, could refuel inflation pressures.

To tackle inflationary pressures and bring inflation closer to their targets, central banks have engaged in monetary tightening at an unprecedented pace. Given the easing of inflationary pressures, an increasing number of jurisdictions seem to have reached their assumed peak, with some countries already reducing interest rates. Although the uncertainty around macroeconomic outlook challenges any possible forecast, the expectation is that interest rates will stay at elevated levels for more quarters to come ("high for longer"), not least while inflation is expected to remain above central banks' targets for a prolonged time. As uncertainty persists around both inflation and economic growth, the trajectory of interest rates also remains uncertain. Monetary policy feeds through market rates, too. Interbank lending costs and the associated benchmark rates, such as the EURIBOR rates and swap rates, have increased substantially over the last year. EUR and USD swap yield curves shifted up and the curves have been inverted depicting a negative slope (Figure 5).

Figure 5: ESTR and Euribor Rates (left) and EUR and USD swap curves (right)
Source: Bloomberg



Central banks have also started to exit from their quantitative easing programmes or started quantitative tightening. In the case of the euro area, the asset purchase programme (APP) stood at EUR 3,302bn at the end of September 2023 and reinvestments were stopped since July 2023.[14] Regarding the Pandemic Emergency Purchase Programme (PEPP), the maturing principal payments from securities will be reinvested until at least the end of 2024. Since 2020, the PEPP accounts for EUR 1,850bn invested in public and private securities. The ECB's TLTROs amount has significantly decreased in 2023.

In October 2022, the TLTROs modalities were reviewed. After the last voluntary repayment in September related to the TLTROs, the ECB balance sheet shrank by EUR 91bn to EUR 7.2tn.[15] Furthermore, the ECB decided in July to cut the interest rate for its minimum reserve requirements (MRR) to zero as of 20 September 2023.[16]

[14] See the ECB's Asset purchase programmes.

[15] See the IMF Global Financial Stability Report, October 2023.

[16] See the ECB's statement on the decision to set the remuneration of minimum reserves at 0% from July 2023.

Uncertainty also affects financial markets

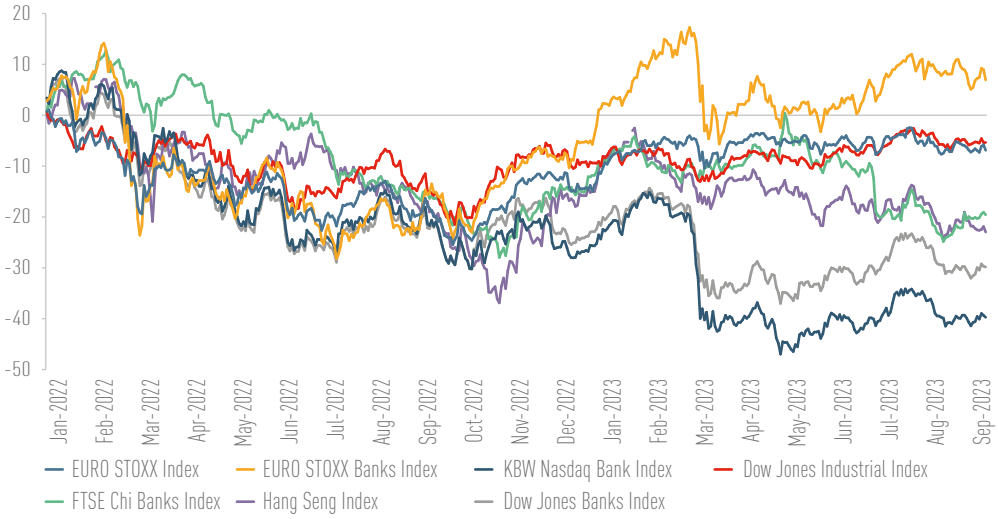
The increase in interest rate levels resulted in slower economic growth and has the potential to negatively affect financial markets. In March 2023, the US banking sector came under stress after the failure of the three regional banks Silicon Valley Bank, First Republic and Signature Bank (March banking turmoil). In Europe, uncertainty manifested itself in the bank run on Credit Suisse (CS) and the resulting takeover by UBS (Figure 6).

These events caused elevated market volatility, including short-lived contagion to equity prices and credit default swap (CDS) premia for certain European banks. The structure of the CS takeover with the write-down of Additional Tier 1 (AT1) bonds, while equity investors received payouts – in the form of UBS shares – added to the overall uncertainty in banks' bond markets for several weeks following the event. This had a relatively strong impact on instruments with lower seniority. The joint statement of the SRB, the EBA and ECB Banking Supervision published immediately after the CS takeover clarified the status of AT1s in the EU, while other steps taken by regulators in the US and the EU provided the necessary transparency in maintaining trust in the banking industry.[17]

The aftermath of the March banking turmoil resulted in the European banking sector's underperforming equity prices, the widening of credit spreads, and the temporary closing down of the AT1 primary market (see textbox on AT1s in the aftermath of the spring crisis in Chapter 4). However, on a year to date (YtD) basis the Euro Stoxx Banks index has performed better than the general Euro Stoxx (Figure 7).

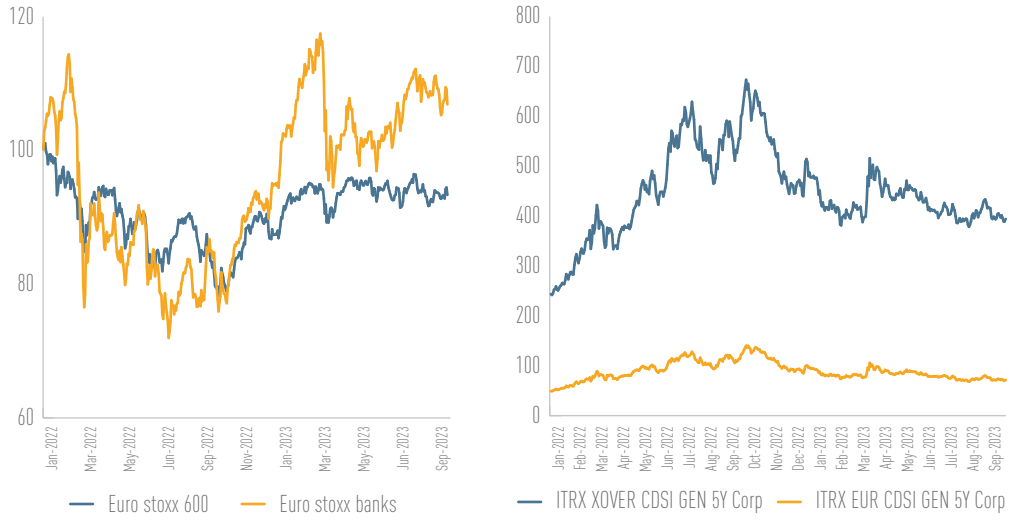
The European banking index (EURO Stoxx banks) grew by 26% between September 2022 and September 2023, outperforming significantly the general index (12%), despite the price correction in March 2023. CDS spreads for investment grade (iTraxx Main) remained almost stable for the whole of 2023. The spread for sub-investment-grade instruments (iTraxx Crossover) of European corporates decreased by 157 bps from September 2022 to September 2023 (Figure 7).

Figure 6: Selected share price indices (relative change since 4 January 2022)
Source: S&P Capital IQ



[17] See the SRB, EBA and ECB Banking Supervision statement from March 2023. The Bank of England issued a separate statement.

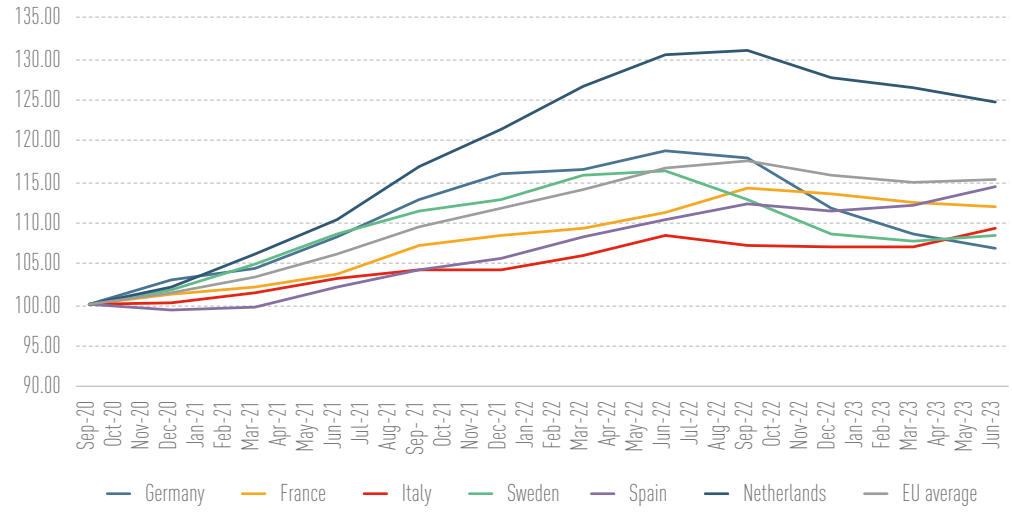
Figure 7: Stock market indices (January 2022 = 100, left) and iTraxx Main and iTraxx Crossover (bps, right)
Source: Bloomberg



Higher interest rates affect the real estate markets

Monetary tightening also affects both RRE and CRE sector dynamics. The cost of mortgage lending due to higher interest rates has increased significantly over the last year and, as a consequence, housing demand has been dented. On the RRE market, there has been a broad adjustment in prices.[18] Compared to last year, house prices in the EU decreased on a broad average by -1.1% in Q2, while rents increased steadily.[19] However, there has been wide divergence of pricing trends across EU countries. The corrections were, for instance, more pronounced in Germany and other northern countries, whereas Spain and eastern Europe hardly saw any decline in real estate prices, with only rare exceptions (Figure 8).[20]

Figure 8: House price index for selected countries (Q3 2020 = 100)
Source: Eurostat



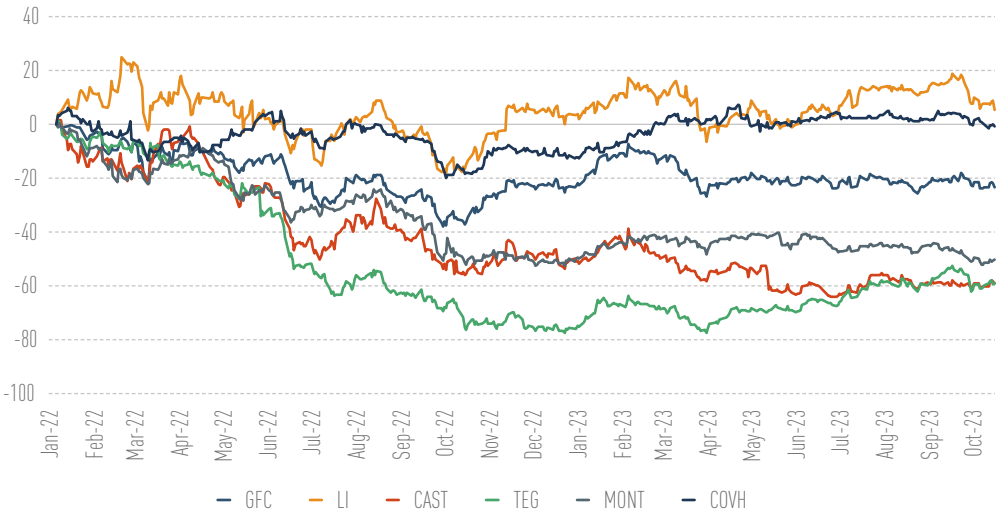
[18] See for instance the BIS Annual Economic Report 2023.

[19] See the Eurostat housing price statistics.

[20] See the European Commission Summer Autumn 2023 Economic Forecast

CRE prices, on the other hand, have already corrected in many jurisdictions across Europe. Transaction volumes have declined at a rate similar to that seen only in the GFC. [21] Structural changes affecting demand for office buildings in the post-pandemic era and market uncertainty are two of the main causes of the current trend. Data shows wide dispersion among countries as well as asset classes and locations. On average, the office and retail segments saw the biggest corrections in the first half of the year. Looking at the market data, European real estate investment trust (REIT) shares on a broad average declined in the last two years.

Figure 9: Share prices of selected European real estate investment trusts (relative, since 2 January 2022, YtD)[22]
Source: S&P Capital IQ



Climate change effects are impending

The sixth IPCC Assessment Report highlights that human-caused climate change already affects many regions across the globe, with more frequent adverse events reported and elevated damages, increasingly significantly affecting human lives.

The 2023 summer was the hottest on record globally. Besides the occurrence of wildfires, prolonged dry periods caused rivers and lakes to further dry up, impacting all life dependent on them. At the same time, soils are getting drier, leading to turndowns in agricultural productivity. On the other side, there are some regions which experience intense downpours or floods, damaging property and infrastructure.

In Europe, mounting climate risks, also illustrated by the extreme weather conditions and unprecedented wildfires and floods this year, have the capability to significantly weigh on human lives and economic development. The materialisation of these risks bears severe costs for the economy, in terms of losses in natural capital and deterioration of economic activity, such as tourism or agriculture.

As pointed out by the European Environment Agency, between 1980 and 2021 weather-related and climate-related extreme events caused economic losses estimated at EUR 560bn in the EU Member States, of which EUR 56.6bn is attributable to the year 2021. [23] Floods accounted for over 45% and meteorological events (i.e. storms including lightning and hail, together with mass movements) for almost one-third of the total economic losses. Heat waves were responsible for over 13% of the total losses while the remaining amount was caused by droughts, forest fires and cold waves together. Given their uncertain nature, the exact timing and the severity of the risks stemming from climate change are hard to predict and therefore require prudent management.

[21] See the ECB Financial Stability Review, May 2023.

[22] Abbreviations of REIT names: LI-Klepiere, CAST-Castellum, MONT-Montea NV, TEG-TAG Immobilien, COVH-Covivio, GFC-Gecina. These REITs are examples and might be considered for indicative trends of different CRE segments and different countries. They also inherit idiosyncratic risks, for which reason they cannot be considered as fully representative, though. Klepiere tends to focus on the shopping malls segment; Castellum is a REIT in the Nordics; TAG Immobilien is a REIT with a focus on German real estate; Montea tends to focus on logistics real estate; Covivio tends to focus on the hotel segment; Gecina tends to focus on Paris in the residential/student houses sector. This information is indicative only and high-level.

[23] See Economic losses from weather- and climate-related extremes in Europe – 8th EAP from October 2023.

Box 1: Banks' climate risk assessment of assets and disclosures

Climate risk – and environmental, social and governance (ESG) risk in general – is becoming an increasingly important risk. The realisation of climate risks could not only reduce the quality of the assets held on banks' balance sheets but could also affect a bank's reputation. However, it is currently uncertain to what extent these risks affect and are reflected in risk differentials and pricing.

The continuation and increasing intensity of acute climate events in 2023, e.g. wildfires and floods across Europe, show that climate-related physical risk will continue to drive financial losses for banks through their exposures subject to such events. The transition risk that banks are facing through their lending and investment activities towards sectors that highly contribute to climate change, as well as the greenhouse gas emissions financed through these activities, also remains material and needs to be monitored and managed carefully. This is particularly relevant in the short run due to the immediate impact in case of an increase in energy prices. It is also relevant in the medium and long run given the renewed efforts required to accelerate the transition towards renewable energy resources and a more sustainable economy. Banks are hence expected to act in a timely and proactive manner to manage those challenges.

Disclosure requirements, together with other regulatory initiatives, are fundamental in this endeavour, capturing banks' respective risks and vulnerabilities. They also support a more accurate valuation of banks' respective assets and increase the availability and transparency of information on banks' exposure to climate risk, which in turn helps investors take more informed decisions.

From the beginning of 2023, banks started to disclose climate-related risks associated with their lending and investment activities in accordance with the implementing technical standards (ITS) introduced under Article 449a of the Capital Requirements Regulation (CRR).

Anecdotal evidence shows that market analysts and investors started to look into ESG risk profiles of banks' exposures. While action by the financial sector needs to increase substantially going forward, the overall direction of travel is clearly towards reducing banks' financed emissions. According to analysts' reports of Pillar 3 public disclosures, EU banks tend to reduce their exposures to fossil-fuel-related corporates in general, and those excluded from the EU's Paris-aligned benchmarks in particular. These trends need to be monitored and substantiated going forward. At this stage, banks' efforts and processes on the disclosure of Pillar 3 ESG information are still evolving and developing (as are other related regulatory requirements in this area, e.g. the Corporate Sustainability Reporting Directive (CSRD)). Revisions to data, for instance, imply that the reliability of trends and information should continuously improve going forward.

While the availability and quality of data for the assessment of climate-related financial risks should improve, the main priority for banks remains to develop techniques to identify how and to what extent ESG risks translate into financial risks. This implies for banks to be able to identify whether a realised loss is linked to climate-related factors, and the extent to which the market prices climate risk and these risks are also reflected in traditional risk categories, as well as to incorporate climate-related factors in their own assessments.[24]

Data availability or other limitations in linking climate risk to traditional categories of financial risks remain a challenge for risk differentials and pricing. Historical evidence alone is not sufficient to capture climate-related financial risk which is more forward-looking in nature. Hence, it is important that banks further develop scenario analysis which is expected to capture forward-looking features of climate risk. Data from current risk-based public disclosures can help banks in building up those analyses.

[24] See the EBA's Report on the role of environmental and social risks in the prudential framework, October 2023.

2. Asset side

The current macroeconomic environment has already had an impact on asset growth. Banks reported slow loan growth since September 2022, as demand for loans is subdued while banks' risk appetite is limited. The effects of this slowdown could translate into lower economic growth in the medium term. However, immediate vulnerabilities may arise across the asset side as borrowers' debt servicing capacity is increasingly impaired due to higher interest rate levels. In addition, geopolitical risks could not only challenge banks with exposures in regions with rising tensions but also those with a global footprint.

Asset quality has remained robust, yet there are some early warning signs, such as NPL inflows being larger than outflows, or an increase in past-due loans. Even though a deterioration is not yet evident in real estate exposures, the overall slowdown in real estate markets could potentially manifest itself in future impairments. In addition, those sectors that were hit by the pandemic and have not been able to recover fully or those sectors that are energy-intensive may see their asset quality being challenged.

2.1. Assets: volume and composition

Macroeconomic uncertainty and monetary tightening have weighed on asset growth as banks have been tightening their credit standards and demand for loans is materially dented.([25]) At the same time, maturing TLTRO facilities have significantly reduced banks' cash balances. As a result, asset growth reported during previous years has stopped. Given the continued uncertain macro environment, banks expect this trend to continue as banks' risk appetite is impaired and consumer and business confidence are low. The slowdown in real estate markets is also manifested in slowing growth of EU/EEA banks' exposures towards the sector for both CRE and RRE. Pockets of risks also emerge through banks' exposures in non-EEA countries, as global growth concerns arise and problems in the US-related CRE sector become apparent. The abrupt change in the interest rate environment brings attention to the risk management of debt securities at amortised cost, including sovereign exposures.

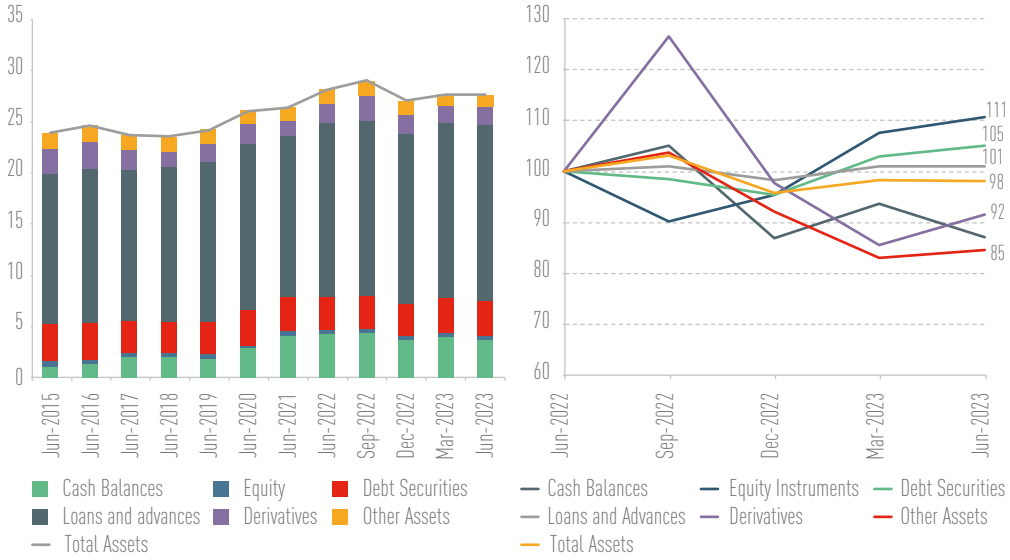
Cash balances and subdued loan growth limit asset expansion

Since the Russian invasion in Ukraine, Europe has gone through a highly volatile and uncertain macroeconomic environment. This is due to persistently high inflation, subdued economic growth, low business and consumer confidence, and the increasing levels of interest rates. Geopolitical uncertainty also affects supply chains and amplifies the downside risks for economic growth. All these have contributed to the subdued demand for loans. At the same time EU/EEA banks' risk appetite to expand their balance sheets was constrained, and they have tightened materially their credit standards on new loan origination. In the euro area, banks mainly used their excess cash reserves to repay the ECB's TLTRO-3 facilities.

Consequently, in June 2023 EU banks reported total assets of EUR 27.6tn, a decrease of close to EUR 550bn (or -1.9%) since June 2022. This was mainly a result of a reduction of close to EUR 540bn in cash balances and comparatively low year-on-year (YoY) growth in loans (+1% YoY) (Figure 10). Outstanding total loans reported by EU banks as of June 2023 were just above EUR 17.1tn. Although marginally higher than compared to June 2022, the growth rate has noticeably slowed down compared to the previous year (7.5% from June 2021 to June 2022).

([25]) See, for instance, the ECB's Bank Lending Surveys, last edition from October 2023.

Figure 10: Trend in asset composition (EUR tn), June 2015 to June 2023 (left), and growth in asset components, June 2022 to June 2023 (June 2022 = 100) (right)
Source: EBA supervisory reporting data



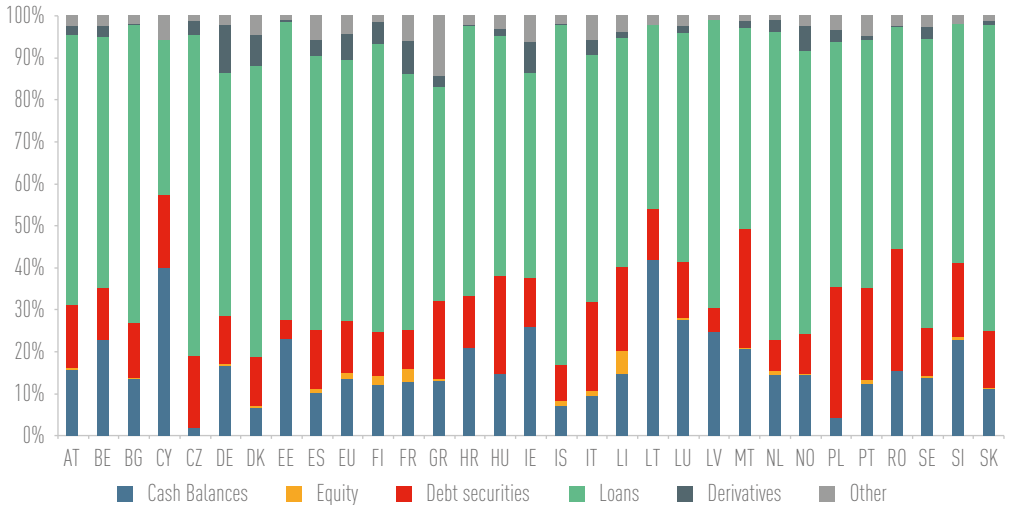
The decrease in the cash balances reported by the EU/EEA banks was significant, not only because they were reduced by around 12.7% YoY, but also because of the reversal in the trend of piling up on cash by the banks since the outbreak of the pandemic in 2020. As of June 2023, banks reported EUR 3.7tn of cash balances in their books. This is still 29% higher than what was reported in the outset of the pandemic, contributing to the comparatively high liquidity ratios reported (see Chapter 4 on the LCR).

In Q2 2023, EU banks reported EUR 1.7tn in derivative exposures (27% lower from September 2022 levels). The decrease in derivative exposures was another contributor to the decrease in EU banks' total assets. Derivative exposures are not least driven by interest rates that affect the valuation of rate-related derivatives, such as interest rate swaps. Interest rate curves have been on an upward trend, which might accordingly result in volatility in derivatives (see Chapter 1 on interest rate developments). The turmoil in energy and commodity markets during summer 2022, caused by very high levels of gas prices, led to an increase of banks' respective derivative exposures. As energy prices normalised over the last year, exposures towards related derivatives were accordingly affected.

Contrary to the above, in June 2023 EU banks' exposures to debt securities grew on a yearly basis by close to EUR 166bn (5.1% YoY). The increase was even more pronounced during the first half of 2023, as banks increased their debt securities holdings by EUR 316bn (10.1% YtD). One explanation could be that banks aimed to take advantage of the higher interest rates and lock them in to secure related earnings for the future.

Following these partially significant volume changes, the asset composition has changed accordingly YoY. Loan and advances have the largest share of total assets (62%), followed by cash balances and debt securities (13% and 12% respectively). Derivatives accounted for 6% of total assets, while equity holdings are just 1% (Figure 11).

Figure 11: Asset side composition by country – June 2023
Source: EBA supervisory reporting data



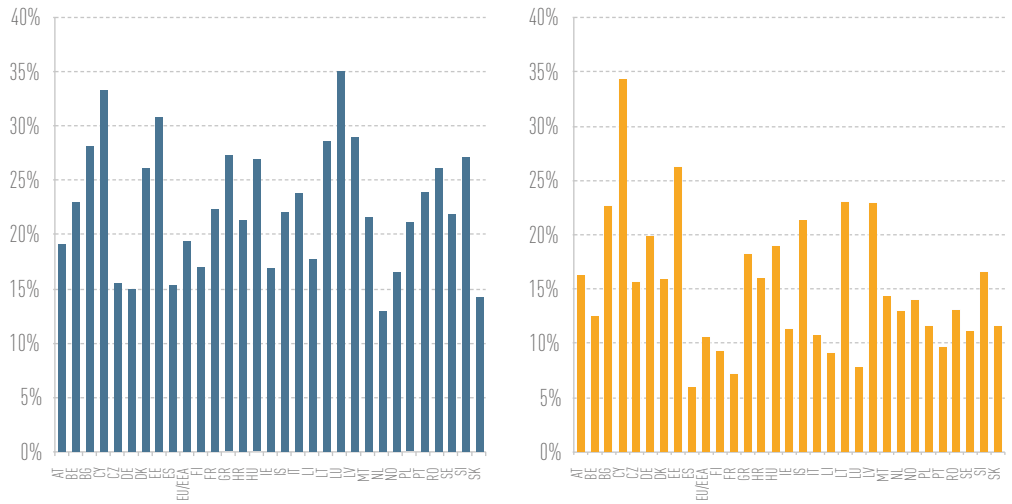
In June 2023, close to 79% of banks' financial assets were measured at amortised cost, 17% were measured at fair value through profit and loss (P&L), and 4% were measured at fair value through other comprehensive income (OCI). Banks reported EUR 5.6tn of fair value financial assets, of which 64% were classified in Level 2 and 5% in Level 3. These were slightly lower than in June 2022, probably also reflecting the lower derivative exposures.

Loan growth was muted for both corporates and households

As a result of the significant monetary tightening of central banks across Europe, the fast-growing loan portfolio reported by EU banks during the post-pandemic period stopped. The level of interest rates has negatively affected demand for loans for both households and non-financial corporates (NFCs). At the same time the heightened macroeconomic uncertainty and the slower economic growth have resulted in firms deploying less capital on fixed investments, while consumer confidence affected demand for household loans. In June 2023, total outstanding loans towards NFCs and households accounted for EUR 13.2tn and they were just 0.4% higher than a year earlier. During the first two quarters of 2023, EU/EEA banks reported negative loan growth of close to 0.4%.

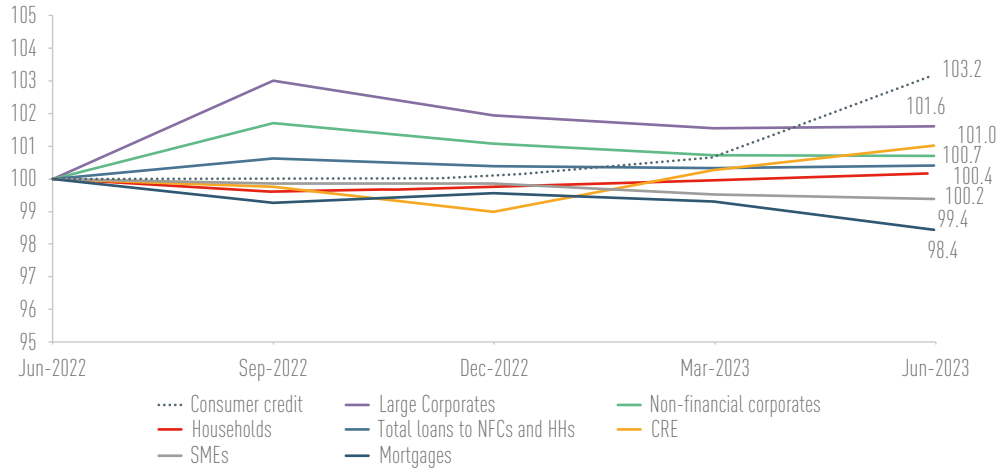
As of July 2023, EU/EEA banks reported exposures towards small and medium-sized enterprises (SMEs) of EUR 2.5tn, while CRE loans stood at EUR 1.4tn. Total loans towards NFCs accounted for EUR 6.3tn, up by 0.7% YoY, essentially driven by the increase in loans towards large corporates (1.6% YoY). During the same period, outstanding loans towards SMEs were down by 0.6%, while loans collateralised by CRE increased by 1% YoY (Figure 13). For the latter, the underlying dynamics in the CRE markets and the worrying signs of a possible downturn have not deterred banks from increasing their overall exposures (see Chapter 1). Anecdotal evidence shows an increased demand for loans from CRE in order to refinance maturing debt. This is also because refinancing debt through capital markets became challenging. The decrease in SME loans is not only related to demand-side factors but also to supply-side motives. Since September 2022, banks have tightened their credit standards materially, and increased their average margins for new loans. Although credit standards have in general become tighter for all loans, irrespective of their size, the different evolution observed between large and small or medium-sized enterprises, despite being marginal, could signal a possible crowding out of funding for smaller-sized firms. Such underlying dynamics could prove problematic for the economic development of some jurisdictions in which SMEs play a prominent role (Figure 12).

Figure 12: Ratio of SME (left) and CRE (right) loans at amortised cost to total loans towards NFCs and households – June 2023
Source: EBA supervisory reporting data



Total loans towards households accounted for EUR 6.9tn, of which EUR 4.4tn were mortgages and EUR 1tn consumer credit. The different evolution in household sub-segments was even more evident than in NFC sub-segments. While outstanding mortgage loans were down by -1.6%, consumer credit loans were up by 3.2%. Following the ECB's first interest rate rises in summer 2022, EU/EEA banks reported a decline in mortgage loan growth. The worsening housing market prospects in many EU jurisdictions, along with low consumer confidence due to an uncertain macroeconomic environment and the higher levels of interest rates, have presumably all contributed to significantly weakened demand for loans for house purchase. In parallel, banks have tightened their credit standards due to higher risk perceptions. The decrease in mortgage loans has also been driven by early repayments (full or partial) of outstanding mortgage loans with variable rates, in an effort by borrowers to mitigate the impact of higher interest rate levels, and as they had built up deposits during the times of the pandemic. Demand for consumer credit was higher than demand for house purchases, yet respective loan growth was still subdued during the last quarters. A possible explanation could be that borrowers have extended their credit in response to rising living costs to meet ongoing obligations (Figure 13).

Figure 13: Growth in loans and advances by segment, June 2022 to June 2023 (June 2022 = 100)
Source: EBA supervisory reporting data



At country level, loan volumes grew at various rates depending on the underlying macroeconomic environment of each jurisdiction as well as their market dynamic specificities. For example, German banks reported a marginal decrease in their outstanding loans to households (-0.3% YoY) while they reported an increase in NFC loans (1.1% YoY). By contrast, French banks increased their NFC and household loans by 3.7% and 2.7% respectively on a yearly basis. Yet, French banks reported a decrease in mortgage loans by 3.4% YoY. Similarly, Spanish banks reported an increase as well in NFC and household loans, although of a smaller magnitude (0.9% and 0.7%).

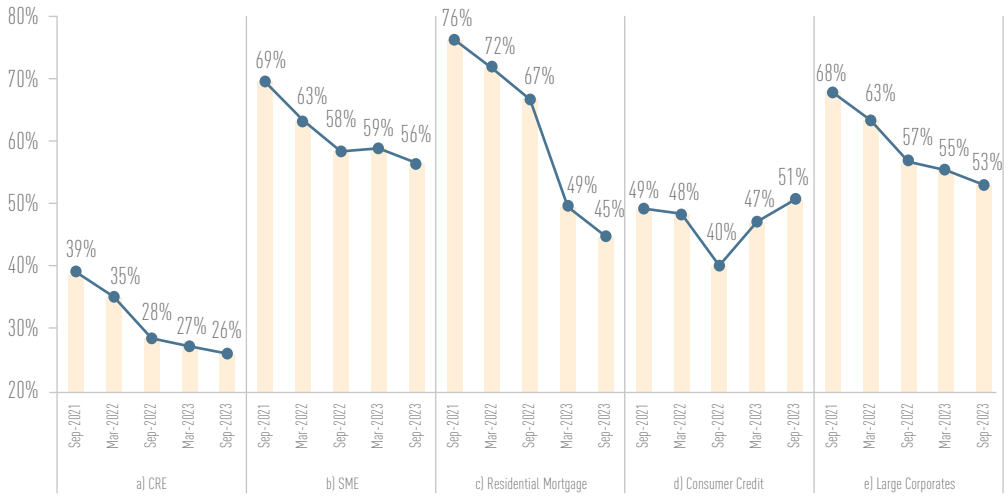
External environment affects sector-specific loan growth

The economic slowdown in Europe, including the levelling out of real estate, is also reflected in the sectoral loan growth reported between June 2022 and June 2023. EU/EEA banks decreased their exposures towards cyclical sectors such as mining and quarrying (-15%), transport and storage (-6%), hospitality-related sectors (-4%) and manufacturing (-1%). Loans towards real-estate-related sectors such as real estate activities and construction remained fairly stable over the last year. Real estate activities had the lion's share of NFC loans (25%), while construction accounted for 5% of total NFC loans. At the same time, EU banks reported a higher exposure towards the service sector (public administration, water supply, professional activities) and digital sectors (information and communication).

Banks expect similar loan growth trends in the next quarters

According to banks' answers to the EBA RAQ, the subdued loan growth dynamic will continue in the next 12 months. Although most banks, for instance, plan to increase their exposures towards NFCs (SMEs and/or large corporates), the trends in both sub-segments are marginally declining, with a smaller number of banks expecting an increase in these portfolios. This trend is more pronounced in real-estate-related exposures, and especially for CRE, for which only one-quarter of the banks plan to increase their exposures. For RRE exposures less than half of the banks plan to expand their loan volumes. This compares to more than three-quarters of banks surveyed two years ago. Lastly, an increasing number of banks aim to increase their exposures towards consumer credit, suggesting that the increase reported during the last year is expected to continue further (Figure 14).

Figure 14: Portfolios which banks expect to increase in volumes in the next 12 months
Source: EBA Risk Assessment Questionnaire



Box 2: Results of the autumn 2023 RAQ – general market trends in sustainable loans

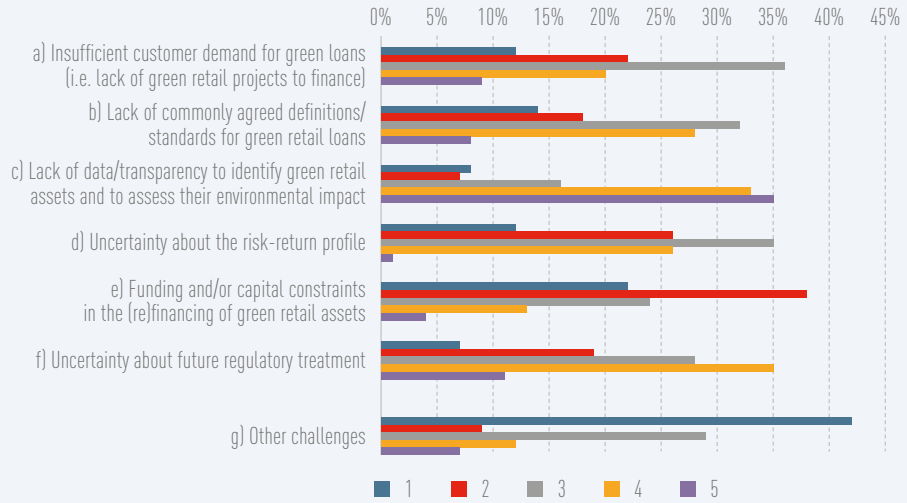
The integration of ESG considerations into banks' funding and lending activities continues. Results of the latest RAQ show that proceeds-based green loans are the most commonly offered products (by 86% of banks) to large corporates. This is directly followed by performance-based sustainability-linked loans (72%). Approximately 52% and 53% of banks respectively also offer social and sustainability loans to their large corporate clients. Proceeds-based green loans are the product category most commonly offered, also in the SME segment (by 82% of the banks). Retail clients by contrast are mainly offered social and green loans.

Banks' appetite to offer various sustainability loans mostly to NFCs but also to SMEs and retail borrowers aligns with the findings of other analysis performed by the EBA.[26] It shows that credit institutions expect green loans to continue growing in the next 24 months, and no credit institution expects contraction or stagnation in green loan markets. As a result, it is possible to expect an increase in the volume of green loans in all segments of the market.

Furthermore findings are that, while banks grant green loans across different portfolios, the share of green loans on banks' balance sheet remains limited. As various market participants, especially households and SMEs, are reliant on banks to have access to sustainable finance, banks' role in green lending plays an important part in the transition to a low-carbon, more resource-efficient and sustainable economy.

However, several obstacles still need to be overcome to increase the overall market for sustainable lending. The majority of banks in the RAQ (68%) continue to see the lack of data and transparency as one of the main challenges in the further development of the green loan market. As other key impediments to market growth, banks this year again named the uncertainty about future regulatory treatment (46%) and lack of commonly agreed definitions and standards (36%).[27] The uncertainty about the risk-return profile of green investments and funding and/or capital constrains in the (re)financing of green retail assets are less of a concern for further development of the green retail loans market according to banks' answers, with 27% and 17% of banks respectively considering these as relevant or extremely relevant aspects (Figure 15).

Figure 15: Main impediments for the further development of green retail loans (1 – not relevant, 5 – extremely relevant)
Source: EBA Risk Assessment Questionnaire

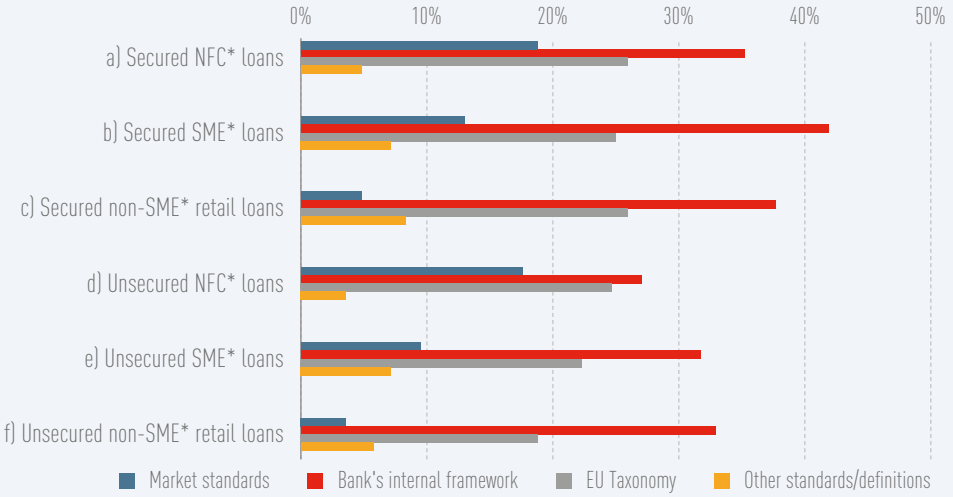


[26] This includes for example, the analysis carried out as part of the EBA response to the European Commission call for advice on green loans and mortgages.

[27] Note, however, that the sample of banks included has changed since the last RAQ.

There is a high degree of heterogeneity among banks' definition of "green" or "sustainable" lending in banks' definition of sustainable products. Most banks rely on their own definition of "green", followed by using the EU Taxonomy, where possible. Between 19% and 27% of the banks covered in the RAQ agreed that the EU Taxonomy is currently and going to be in the future a main classification standard for various green products (Figure 16). Going forward, the regulatory framework needs to ensure that a necessary infrastructure around the Taxonomy, e.g. measures for exchange of information, is established so that the market participants benefit from this public good and contribute to the growth of a well-functioning market for sustainable lending and investment activities.

Figure 16: Definition of "green" used by banks for different loan segments
Source: EBA Risk Assessment Questionnaire



Banks increased their investments in debt securities

The increasing rates have caused debt security valuations to fall, yet higher interest rates could also provide an investment opportunity for banks' treasuries, at a period of subdued loan demand. Also the changes in the balance sheet composition of EU subsidiaries of large international banks that previously passported into the EU from the UK might have an impact on this increase of debt securities. On a yearly basis, total debt holdings increased by 5%. Banks in more than half of the EU/EEA countries increased by at least 10% YoY their total debt securities exposures. The unprecedented pace in hiking central bank interest rates has underscored the importance of managing interest rate risk prudently and proactively.

Box 3: Focus on debt securities recognised at amortised cost following the US banking turmoil in March this year[28]

The tightening of central banks' monetary policies to tackle elevated inflation has increased banks' interest rate risk in their banking book (IRRBB). Interest rate risk also includes the impact of rate changes on fixed-rate assets, such as bonds, as their value fluctuates according to the movement of interest rates. Depending on their purpose, such bonds can be recognised at amortised cost under International Financial Reporting Standards (IFRSs). This avoids volatility in a bank's P&L or capital, which appears if such bonds are recognised at fair value. However, banks are required to manage prudently their interest rate risks, according to the relevant IRRBB

[28] This analysis is based on a sample of around 250 banks, to also cover small institutions.

guidelines (see also the textbox on interest rate risks in Chapter 5).

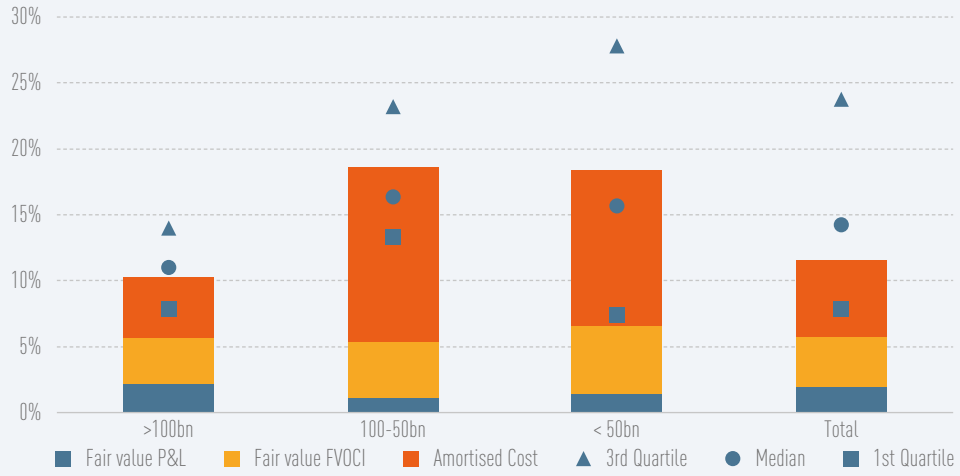
The failure of some medium-sized US institutions was a lesson in how vulnerabilities in banks' business models can expose them to insufficient risk management practices. For example, one of the reasons for Silicon Valley Bank's (SVB) failure was the mismanagement of interest rate and liquidity risk. The bank's low diversification of its assets, high concentration of liabilities and high share of uninsured deposits, its rapid growth and the complexity of the bank required vigilant risk management which the bank failed to apply, and insufficient supervision failed to appreciate and mitigate these factors.[29] Events have also shown the effects of the digital era on banks' liquidity, as information and deposits can move faster than in the past. The bank run on SVB was, however, triggered by the bank's announcement that it had to realise the loss due to the forced sale of its debt securities. This has highlighted the need for an in-depth analysis of not only banks' holdings at amortised cost, but also whether their risk management practices are appropriate and adequate.

Lessons learned were reflected in the EBA's European Supervisory Examination Programme for 2024, which among others requires EU supervisors to assess on an institution-by-institution basis if practical impediments to selling securities recognised at amortised cost exist as well as to focus on banks' assumptions about the stability of their deposit funding in the digital era and potentially challenge those.[30]

In parallel to the EBA EU-wide 2023 stress test, the EBA ran an ad hoc data collection on banks' bond holdings for the same sample of banks participating in the exercise. As of February 2023, the total amount of these banks' debt securities held at amortised cost was EUR 1.3tn. At the same reference date, the related total unrealised losses, net of hedge adjustments, amounted to EUR 75bn, showing an increase since the end of 2021 as interest rates have been increasing. The analysis concluded that banks used hedging to mitigate gross unrealised losses. As of February 2023, losses were mitigated by hedges amounting to EUR 38bn.[31]

An analysis using financial reporting data shows that as of December 2022 small and medium-sized banks had a higher share of their total assets in debt securities. They also tended to recognise more of these bond holdings at amortised cost than their larger peers (Figure 17). While in total banks recognised 50.2% of their debt securities at amortised cost, medium-sized banks reported 71% and smaller ones 63.8%.

Figure 17: Debt securities in % of assets and dispersion by size of bank - Dec-22
Source: EBA supervisory reporting data



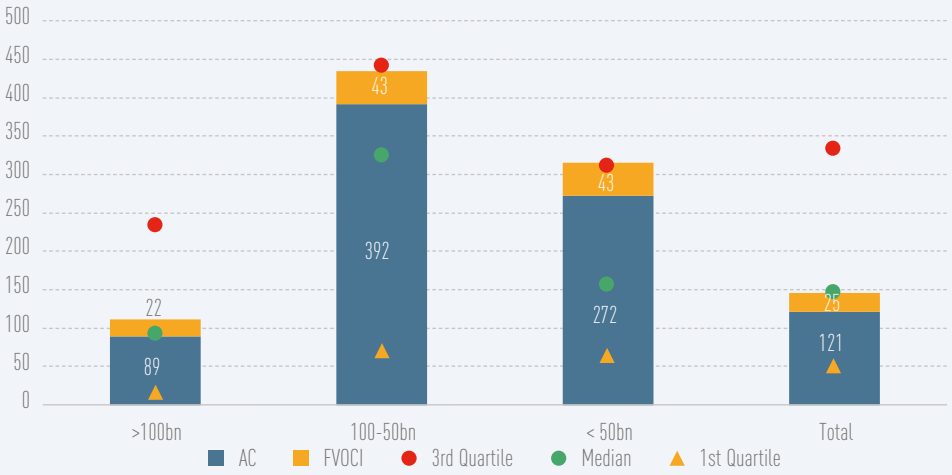
[29] Board of Governors of the Federal Reserve System – Federal Reserve's Supervision and Regulation of Silicon Valley Bank – from April 2023.

[30] See the EBA's examination programme priorities for prudential supervisors for 2024.

[31] EBA report on ad-hoc analysis of unrealised losses on EU banks' bond holdings – from July 2023.

As a result of their higher share of debt securities to total assets, and recognising a higher share of these assets at amortised cost, smaller and medium-sized banks reported higher unrealised losses, with a number of smaller institutions being outliers (Figure 18).[32] In addition to this, there are indications that smaller banks tend to have fewer interest rate derivatives for hedging purposes, which might indicate that they have less mitigation of their unrealised losses through hedges (see textbox on interest rate risk in Chapter 5).

Figure 18: Unrealised losses from debt securities at amortised cost in bps of CET1 and dispersion by size of bank - Dec-22
Source: EBA supervisory reporting data



[32] Unrealised losses are those after considering hedge adjustments coming from designated hedge accounting.

Banks limited the growth towards non-EEA counterparty exposures

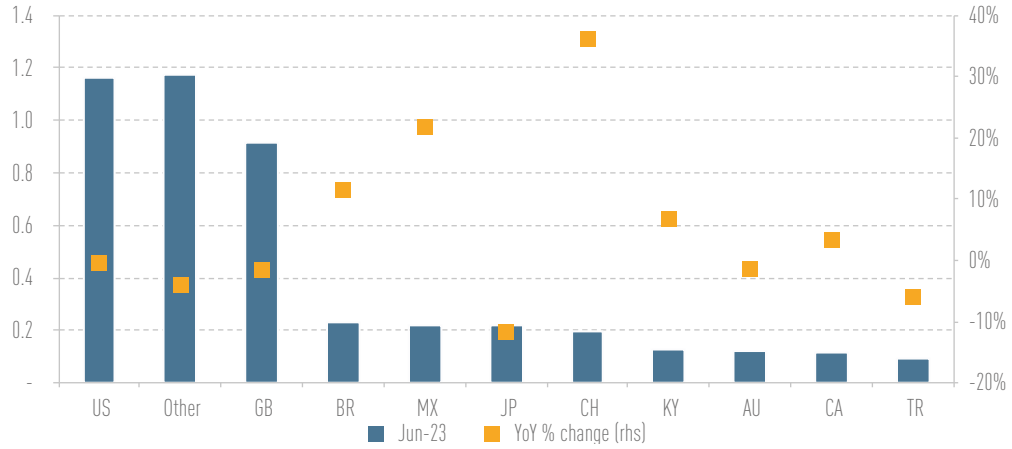
The total exposure of EU/EEA banks towards non-EU/EEA domiciled counterparties stood at close to EUR 4.6tn, around 1% higher compared to June 2022. This is in contrast to the fast growth reported in the previous year (+9.4% June 2021 to June 2022). This may also be partly driven by the strengthening of the euro vis-à-vis other currencies.[33] The largest non-EEA counterparties of EU banks remained the US (EUR 1.2tn) and the UK (EUR 0.9tn), while individual exposures to other countries did not exceed EUR 0.25tn (Figure 19).

Banks' exposures to emerging economies grew by 2% compared to June 2022.[34] As of June 2023, the total exposure towards EMEs was close to EUR 0.86tn, an increase of close to EUR 18bn compared to the same quarter in 2022. The most important non-EEA counterparties were Brazil, Mexico, Turkey, Chile, China and Russia. Exposures towards the latter two countries decreased substantially over this period. Direct exposures to Russian counterparties stood at EUR 38bn (-42% YoY), while exposures to Chinese counterparties stood at EUR 56bn (-24% YoY). At the end of 2021, two months before the Russian war, EU/EEA banks' exposures towards Russian counterparties were more than EUR 70bn. Enduring geopolitical tensions have weighed on banks' decisions to gradually limit their exposures towards Russian counterparties. Since the Russian invasion in Ukraine, a number of EU banks have managed to exit or significantly wind down their operations in Russia. Geopolitical tensions in other areas, such as the Middle East, could similarly have an impact on EU/EEA banks' balance sheets. Such an impact could not only manifest itself in higher credit risk, but also through a reduction of banks' exposures to certain jurisdictions, or even through a complete withdrawal from areas considered of heightened risk. Exposures of the European banking sector to Middle Eastern counterparties totalled around EUR 130bn, the majority of which was towards Egyptian and Qatari counterparties.

[33] Indicatively, in July 2023 the nominal effective exchange rate of the euro reached its highest level since 2008 (see the ECB's daily nominal effective exchange rate of the euro).

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

Figure 19: Exposures to non-EEA counterparties by country of domicile (EUR tn) and YoY % change (rhs)
Source: EBA supervisory reporting data



More than EUR 3.5tn of the exposures towards non-EEA counterparties were through loans and advances. Of these, EUR 1.3tn were NFC loans mainly towards large corporates (SME loans were just EUR 250bn), while household loans were close to EUR 0.8tn. CRE-related loans accounted for EUR 210bn, of which EUR 76bn were towards US counterparties, followed by UK-domiciled counterparties (EUR 35bn). Household loans were dominated mainly by mortgage loans (EUR 460bn), mainly towards UK counterparties (EUR 290bn). Consumer credit exposures totalled EUR 210bn and were dispersed across the globe: US (EUR 46bn), Brazil (EUR 43bn), Mexico (EUR 34bn) and the UK (EUR 28bn).

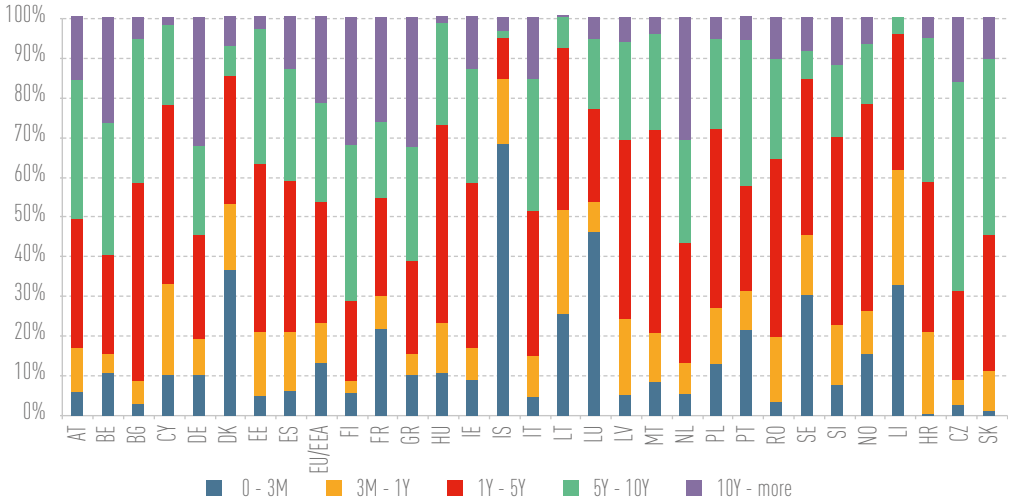
EU banks increase their sovereign exposures

As of June 2023, EU banks reported around EUR 3.4tn of total gross carrying amount towards sovereign counterparties. This is up by almost 8.1% from December 2022 (EUR 3.1tn) and marginally higher than a year earlier. Half of these exposures are towards domestically domiciled counterparties, while around one-quarter are towards other EU/EEA countries.

Rising interest rates have brought forward the topic of long-term sovereign debt sustainability, as sovereign funding costs are set to increase. Jurisdictions with heightened debt levels will have to refinance maturing debt at higher interest rates. The maturity profile of the sovereign debt held by EU/EEA banks is tilted towards the long end, as at least 45% of these exposures have a maturity of more than five years while 30% have a maturity of between one and five years. The largest share of sovereign exposures is measured at amortised cost (60%), followed by fair value through OCI (18%) and held for trading (17%).

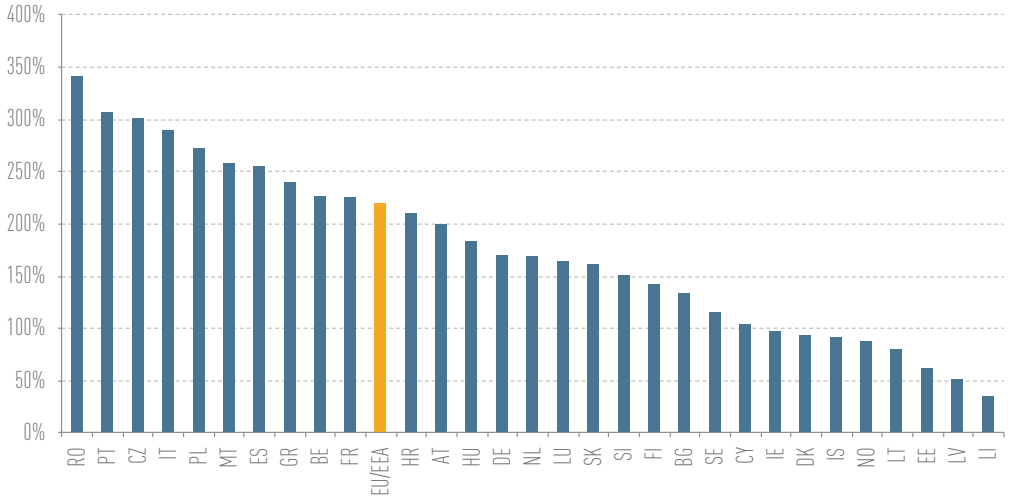
Higher rates, at the same time, offer an opportunity for banks to roll over maturing sovereign exposures – which are mostly fixed-rate bonds – at higher rates upon their maturity. This has a positive impact on their future profitability. However, the maturity profile of the sovereign debt held by EU/EEA banks does not support a quick turnover of banks' sovereign exposure (Figure 20).

Figure 20: Sovereign exposures maturity profile by country – June 2023
Source: EBA supervisory reporting data



EU/EEA banks' total sovereign exposure accounts for more than double their equity, while several banks have an exposure towards sovereigns multiple times their equity. As of June 2023, the sovereign exposure reported by EU/EEA banks was 210% of their Tier 1 equity (214% in June 2022). However, there was a wide divergence of this measure at both country level and bank-by-bank level. Banks in central and eastern as well as southern Europe generally reported a higher ratio of sovereign exposures to capital (Figure 21).

Figure 21: Sovereign exposures as % of Tier 1 capital by country – June 2023
Source: EBA supervisory reporting data



Interlinkages with non-bank financial institutions (NBFIs) becoming increasingly prominent

Several market upheavals in recent years were either due to or partially related to NBFIs, such as the so-called Archegos and Greensill-related events in 2021, or the UK's Liability Driven Investment (LDI) crisis last year.[35] These crisis events showed the complex interlinkages between the banking and non-banking sectors. They include risks related to direct exposures, but also liquidity or funding risks related to such entities, as

[35] NBFIs commonly include, but are not limited to, pensions funds, insurance companies, hedge funds, commodity traders, exchange-traded funds (ETF), as well as open-ended, real estate and money market funds (see the IMF's working paper on lessons from the UK's LDI crisis from September 2023). On the LDI crisis see also ESMA's TRV Risk Monitor ESMA No. 1 2023 from February 2023.

well as, for instance, step-in risks.[36] Based on an indicative analysis of EBA supervisory reporting data, EU/EEA banks' direct exposures towards NBFIs accounted for around 7% of their total assets.[37] They are highly concentrated in a few large banks. With regard to liquidity and funding risks, respective data also shows that NBFIs are, for instance, one the main buyers of bank bonds.

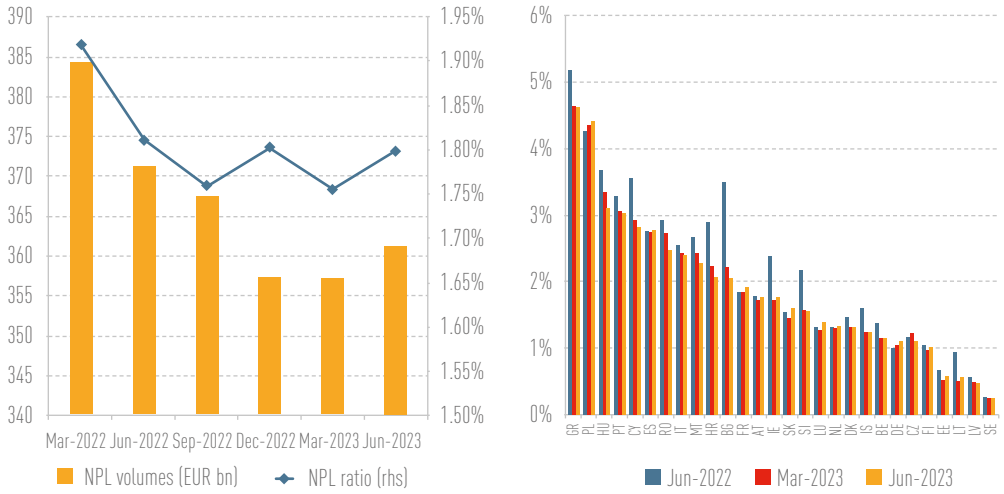
2.2. Asset quality trends

The macroeconomic parameters have been deteriorating over the past year, yet banks' asset quality has hardly worsened. This is despite the broad expectation that the increase in interest rates along with the persistence of inflation and the subdued economic growth will materially affect asset quality. This may be explained by low unemployment rates that have helped borrowers maintain their debt repayment capacity at vigorous levels and the liquidity accumulated by corporates and households during the pandemic. NPL inflows were higher than outflows during the first half of this year, while banks reported a higher amount of stage 2 loans. The impact is more evident for household loans, including mortgage loans. Concerns around real-estate-related exposures have induced banks to increase their provisioning against RRE and CRE. Pandemic-hit sectors lead the asset quality deterioration, while energy-intensive and real-estate-related firms are faced with not only abruptly rising borrowing costs but also inflationary pressures and reduced demand.

Non-performing loans: decreasing trend may have reached its end

Although the NPL volume still decreased by EUR 10bn (-2.7%) compared to June 2022, the rate of decrease in NPLs is materially lower compared to previous years. As of June 2023, EU banks reported EUR 361bn of NPLs (1.8% of their total loans and advances), slightly higher than the lowest ever reported by EU banks earlier this year (EUR 357bn in March 2023; Figure 22).

Figure 22: Trend of EU NPL volumes and trends March 2022 to June 2023 (left) and NPL ratios by country June 2022 to June 2023 (right)
Source: EBA supervisory reporting data



[36] On step-in risk see the Bank for International Settlement's (BIS) summary of step-in risks from August 2021.

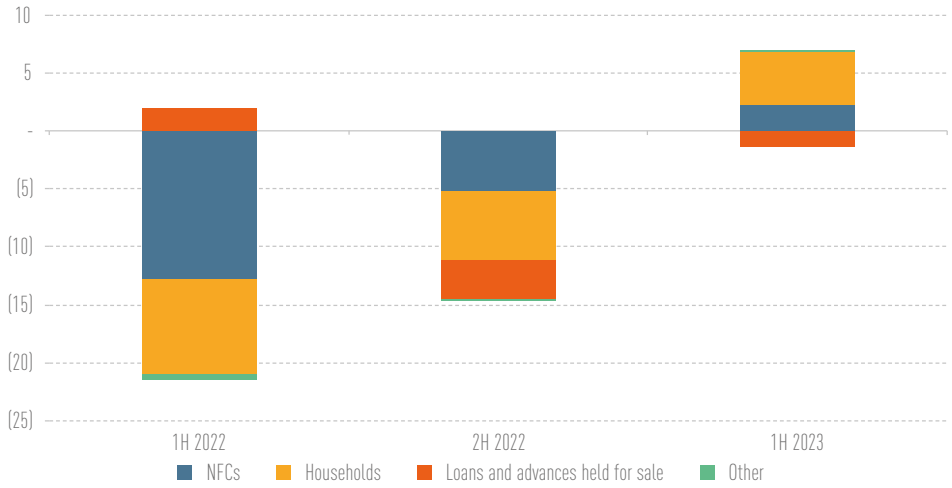
[37] This analysis is based on FINREP, and NBFIs include in this case "other financial corporations", which covers investment firms, investment funds, insurance companies, pension funds, collective investment undertakings, and clearing houses as well as remaining financial intermediaries, financial auxiliaries, captive financial institutions and money lenders. This analysis is based on a sample of slightly more than 350 banks.

The plateau in the trend of NPLs was partly caused by an increase in NPLs over the second quarter of 2023 in a number of countries. At the same time most smaller banking jurisdictions continued to report a decrease in their NPL volumes. The highest NPL ratio was reported by Greek banks (4.6%), followed by Polish banks (4.4%). The former continued their balance sheet clean-up by decreasing their NPLs by 19% YoY (EUR 9bn in June 2023), managing to close the gap in NPL ratios to other countries. Polish banks, on the other hand, reported a slight increase in their NPL ratios over the last year, as their NPLs volumes increased by 13% YoY (EUR 6.4bn in June 2023). This might not least be driven by the CHF-denominated mortgage exposures.

The change in trends is also reflected in the reported figures of NPL flows. During 2022, EU banks reported a total NPL inflow (newly formed NPLs) of EUR 168bn, while at the same time they reported an outflow of EUR 202bn. As a result, EU banks had a total net outflow of around EUR 35bn over 2022, which was already significantly lower than the net outflow of EUR 70bn reported in 2021. In the first half of 2023, EU banks reported a net inflow of EUR 6bn. This was a result of both higher NPL inflows (EUR 112bn) as well as lower NPL outflows (EUR 106bn) compared to the same period last year (Figure 23).

Although NPL inflows have increased, they are still mostly compensated by outflows. The development of secondary NPL markets and internal or external capabilities to deal with NPLs, presumably enable EU banks to quickly address a deterioration in asset quality. Compared to the previous crisis, in which NPLs reached over EUR 1tn, banks have the experience to take a proactive approach in tackling the new NPLs. Regulation and supervisory expectations also define this approach in order to avoid banks building up again a huge stock in NPLs.

Figure 23: NPL cumulative net flows by segment for June 2022 to June 2023 (EUR bn)
Source: EBA supervisory reporting data



Stage 2 allocation remained stable at elevated levels.

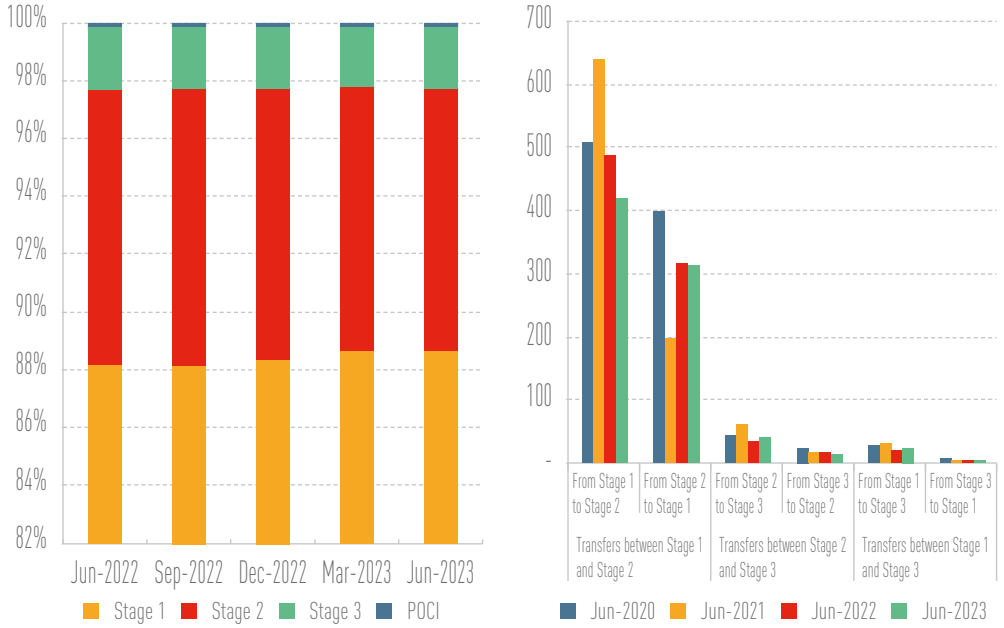
Although NPL volumes are being kept in check, overall credit risk is on the rise. On the forefront of this are vulnerable over-indebted households and firms. For households, high inflation eats into their real income, and increased interest rate payments exert pressure on their debt servicing capacity. Similarly, firms – especially those smaller in size – are challenged as their profit margins tighten and their capacity to pass through rising costs due to inflation is limited.

These risks are already reflected in the allocation of stage 2 loans, i.e. those loans for which credit risk has significantly increased but which are not yet impaired. As of June 2023, banks had classified 9.1% of loans as stage 2, slightly lower than a year earlier (9.5% in June 2022). It compares with a stage 2 ratio of 6.5% before the pandemic broke out (2019). More than EUR 1.4tn in loans are considered of elevated credit risk, 3% lower than a year earlier. Although the migration of stage 1 loans to stage 2 was limited compared to previous years, the net migration of loans towards stages with higher credit risk (in the meaning of stage 2 and 3 assets) was still positive.[38] During the first half of 2023, banks moved close to EUR 420bn from stage

[38] The analysis does not take into account loans that may have matured or been repaid, written off or sold by banks.

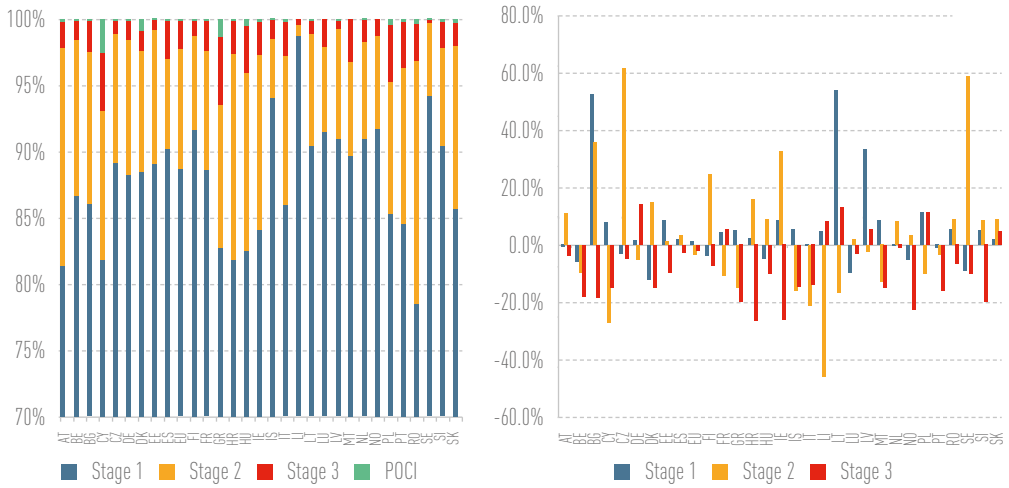
1 to stage 2 while they migrated EUR 310bn in the opposite direction. Similarly, moves towards stage 3 (either from stage 1 or stage 2) accounted for more than EUR 65bn, while migrations out of stage 3 accounted for just EUR 20bn. In total, banks moved close to EUR 500bn to lower credit quality stages while they migrated EUR 330bn to higher credit quality stages (Figure 24).

Figure 24: Evolution in stage allocation by EU banks of loans and advances at amortised cost – June 2022 to June 2023 (left) – and evolution of transfers of loans between impairment stages – June 2020 to June 2023 (EUR bn) (right)
Source: EBA supervisory reporting data



The biggest increases in stage 2 allocation were reported by banks in central and eastern Europe and in Nordic countries. In these countries, the monetary tightening cycle started earlier than in the euro area, therefore signs of stress due to higher interest rates may have appeared earlier. Despite the fact that French and German banks have driven the increase in NPLs and accordingly stage 3 loans, at the same time they considerably decreased their stage 2 loans. French banks reported a decrease of more than 10% (EUR 50bn) and German banks of 5% (EUR 10bn) between June 2022 and June 2023. Some countries in southern Europe, on the other hand, reported a decrease both in the allocation to stage 2 loans and in their exposures to stage 3 loans. Macroeconomic dynamics in these countries do not materially differ from other countries that reported a worsening asset quality outlook. Yet balance sheet clean-up is still ongoing in countries such as Greece, Cyprus and Italy. In addition limited exposures to CRE or certain particularly vulnerable sectors, for example energy-intensive sectors, may also drive this divergence in trends (Figure 25).

Figure 25: Distribution of amortised loans by stages by country (left) and year-on-year change in stage 1 / 2 / 3 loans by country (%) (right) [39]
Source: EBA supervisory reporting data

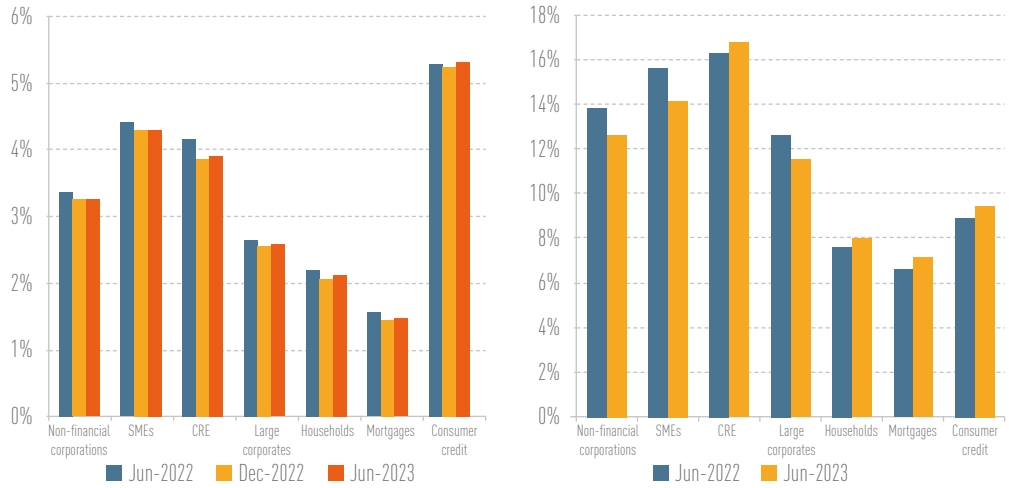


Asset mix defines the extent of the impact of rising interest rates and subdued economic growth

In a similar way to the trends in asset growth, there has been varying behaviour in the asset quality trends among different segments. In June 2023, EU/EEA banks allocated 8% of their household loans to stage 2, an increase of 40 bps compared to June 2022. This was driven by both an increase in consumer credit (9.5% in June 2023 vs. 8.9% in June 2022) and in mortgage loans (7.1% in June 2023 vs. 6.6% in June 2022). In contrast, the share of NFC loans in stage 2 was reduced during the same period (12.6% in June 2023 vs. 13.8% in June 2022). CRE were the exception among NFC-related exposures, as EU banks increased their stage 2 allocation by 40 bps. This segment had still the highest allocation to stage 2 loans (16.7% in June 2023; Figure 26).

SME exposures have the second highest stage 2 ratio, reaching 14.1%, down from 15.6% a year ago. SMEs are challenged by rising interest payments due to their higher usage of variable-interest-rate loans (see Figure 83 on rate fixation periods for different kinds of exposures), while also exposed to higher input costs (e.g. energy supply and raw materials). Demand for loans is anyhow subdued (see Chapter 2.1). As loans are also used for investments, such negative demand trends may have a longer-term impact on their growth as well as SMEs' competitiveness. This could, in turn, negatively impact their asset quality in the future.

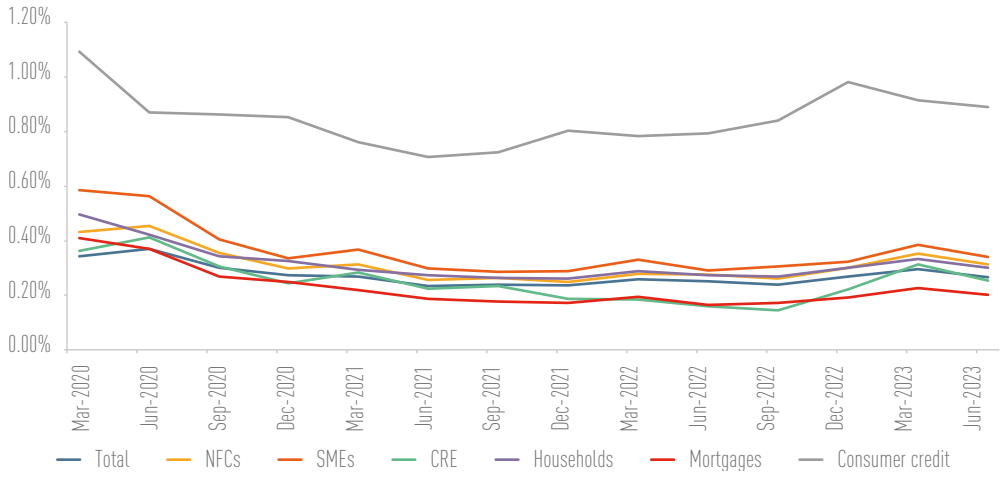
Figure 26: Trend in NPL ratios (left) and share of stage 2 (right) for loans at amortised cost by segment
Source: EBA supervisory reporting data



[39] On the year-on-year changes it needs to ne noted that growth percentages should not be summed as the growth rates for each stage move have by purpose and nature different denominators.

Information on the share of loans that are past due provides an early indication of possible deterioration in the asset quality. In June 2023, EU/EEA banks reported EUR 42bn of exposures that are past due for more than 30 days but less than 90 days, which was 7% higher than a year earlier. These levels of early past-due loans were last seen during the pandemic. Consumer credit represents the highest ratio of loans in this category to the total (0.89%), followed by SME loans. These ratios followed a rising trend since June 2021 and, after a peak in the beginning of this year, they slightly corrected but still remain close to their pandemic heights (Figure 27).

Figure 27: Share of past due more than 30 days and less than 90 days to total loans at amortised cost by type of exposure
Source: EBA supervisory reporting data



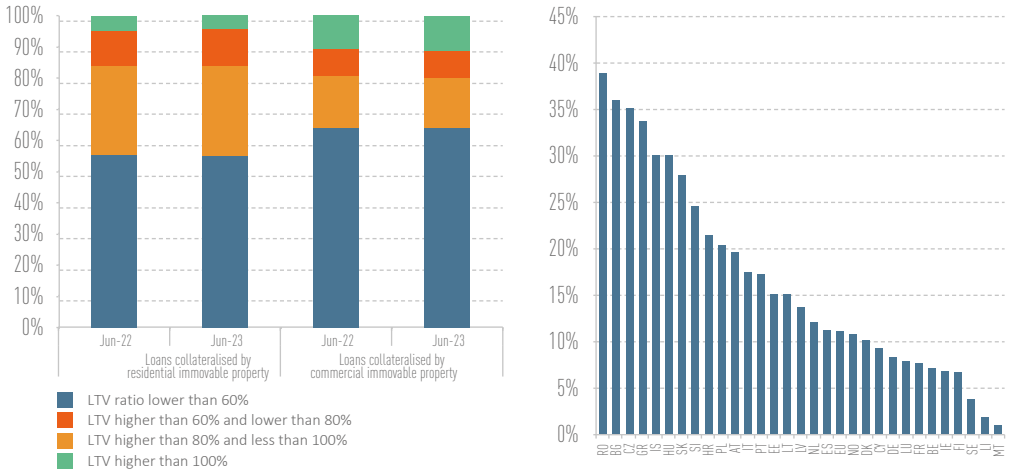
There is growing concern about real estate exposures. Although mortgage NPL ratios remain low (1.5%), prices in the RRE markets across Europe have slowed down substantially or even declined in recent quarters, as interest rates increased at an unprecedented pace. It followed a notable rally in RRE markets since the outset of the pandemic. There have been major differences across countries and regions. European authorities raised their concerns on the possible consequences of a rapid price correction in RRE markets. Such a development would not only pressure banks' credit quality and challenge their profitability, but could create a broader effect on economic growth, creating an adverse loop that could feed back to banks' credit quality. Although risks stemming from these exposures are material, there are several factors that mitigate the impact on banks. Loan-to-value ratios have remained stable compared to last year (55% of mortgages had loan-to-value (LTV) ratios of less than 60% and only 5% had LTV ratios of more than 100%), while the share of loans in high LTV buckets decreased in recent years. The reduction has been in part supported by stricter and more prudent lending standard requirements activated or tightened in a number of countries (Figure 28).[40]

For CRE exposures, price corrections have gathered pace, at least in certain jurisdictions such as Nordic countries or Germany. Vulnerabilities for the sector started piling up during the pandemic and these have been intensified as higher interest rates added refinancing pressures to the sector, while inflation has added to construction costs. The sector is also confronted by low demand, especially in office and retail segments, and more structural issues such as changes in work practices or climate transition. At the same time as capital markets require a higher premium to refinance maturing debt, banks have tightened their credit standards, making access to funding more difficult.

Nevertheless, LTVs remain at robust levels. 64% of CRE exposures have an LTV of less than 60%. This provides some cushion for banks in case of a wider and deeper correction in CRE markets. Yet, close to EUR 160bn of CRE loans had a LTV of more than 100%. The highest share of "high LTV values" was reported in central European countries (Figure 28). Broad-based economic slowdown and tightening of financial conditions could increase credit risk, which could also weigh even more on these exposures. Leveraged investors, including non-bank financial intermediaries, could be forced to sell CRE properties, adding downward pressure on prices and exposing non-mitigated risks related to a liquidity mismatch in real estate investment funds.

[40] See the list in ESRB overview of national macroprudential measures.

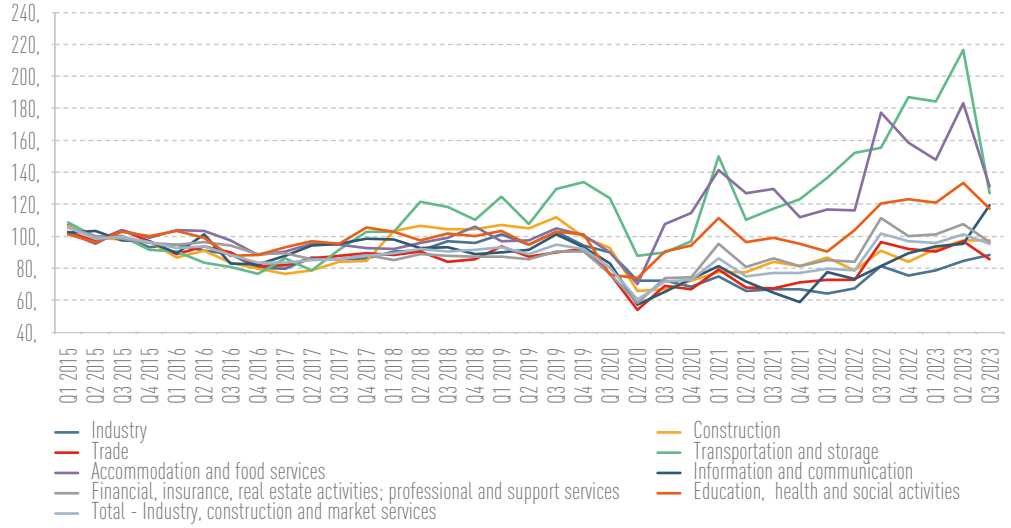
Figure 28: LTV shares for mortgages and CRE (left) and share of CRE with LTV >100% by country (left)
Source: EBA supervisory reporting data



Asset quality deterioration mostly evident in specific sectors

During the first half of 2023, the credit risk of NFCs increased. The most notable deterioration was reported in the pandemic-hit sectors, such as hospitality, which may have never fully recovered from the pandemic. These firms are now being confronted with inflation pressures, high energy costs and lower economic growth. In addition, the slowdown in real estate markets has caused an increase in the credit risk of sectors such as construction and mining. Insolvencies in these sectors have accordingly increased markedly. For some sectors, bankruptcies are now at their highest level for almost a decade. Banks' supervisory data reconciles to some extent with the market data on insolvency rates. For instance, data on the hospitality sector shows a strongly rising bankruptcy rate and at the same time banks reported an increase in the NPL ratio for this sector (Figure 29). The sectoral analysis provided by the EBA's EU-wide stress test also shows that banks expect these sectors as well as energy-intensive sectors to be particularly vulnerable within the context of an adverse scenario.[41]

Figure 29: Bankruptcy declaration by sector – 2015 = 100
Source: Eurostat



[41] See the results of the EBA's 2023 EU/EEA-wide stress test from July 2023.

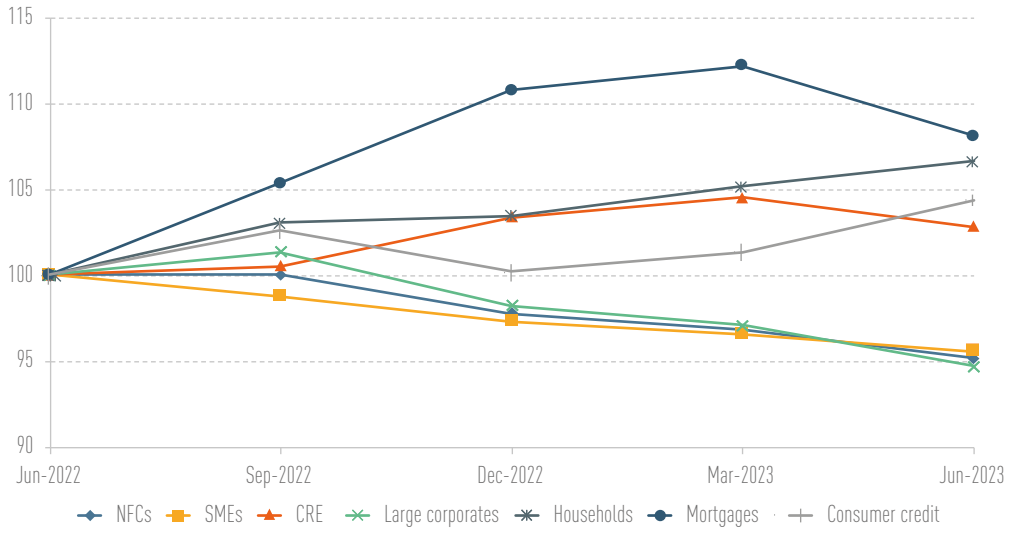
Banks recognised extra provisions towards household exposures as they prepare for asset quality deterioration

The overall coverage ratio for NPLs decreased by 90 bps over the year between June 2022 and June 2023 to 42.9%. This was mainly driven by a decrease in the coverage ratio of NFC NPLs (44.5% in June 2023 vs. 46.5% in June 2022), while the coverage ratio for households remained roughly stable (42.4% in June 2023 vs. 42.5% in June 2022).

Total provisions of EU/EEA banks were down by 3% YoY. In total, as of June 2023, EU banks booked EUR 240bn of provisions, of which EUR 155bn were towards NPLs (down by 5% compared to June 2022), and close to EUR 85bn were towards performing loans, which remained stable. The coverage ratio for performing loans remained stable at 0.44%.

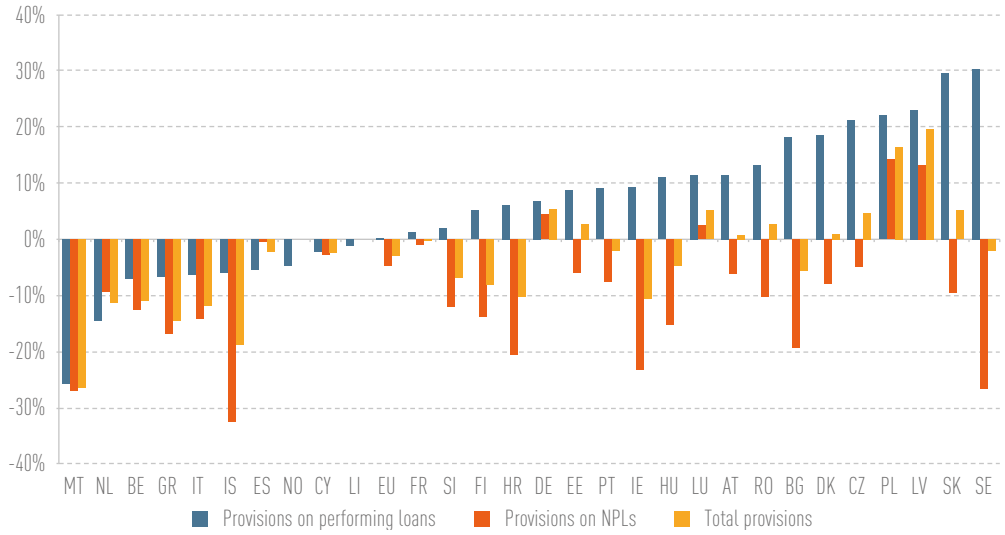
Banks' expectation for faster deterioration of asset quality in household loans is confirmed also by provisioning against performing household loans. Banks increased their provisions against mortgages by 8% over the last year, while during the last quarter they also accelerated provisioning against performing consumer credit. In total, banks increased by 7% their provisions for household loans. At the same time, provisions against performing NFC loans decreased by 5%, while their provisions increased only against CRE exposures. The dichotomy is essentially driven by the higher reallocation of household loans from stage 1 to stage 2 compared to NFCs (Figure 30).

Figure 30: EU accumulated impairments on performing loans by segment (June 2022 = 100)
Source: EBA supervisory reporting data



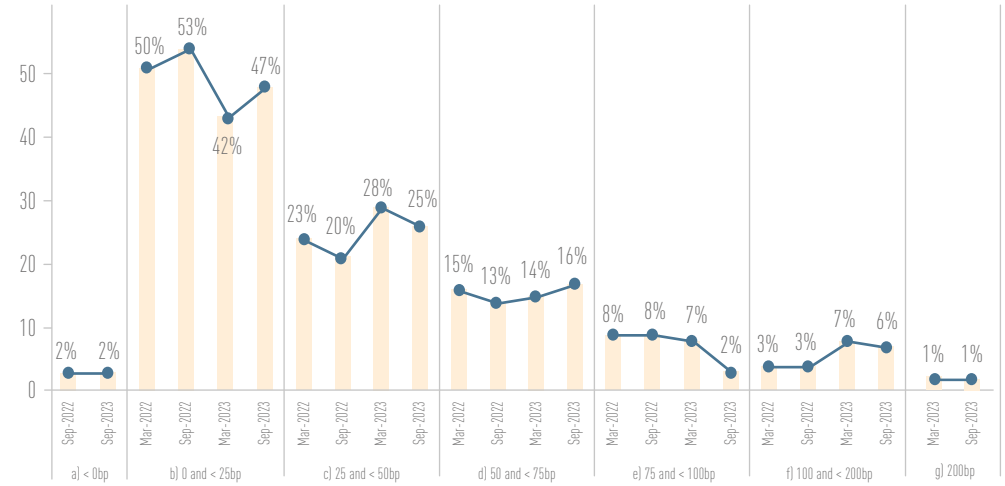
The majority of countries have increased their provisions against performing loans significantly, with some countries increasing by more than 20%. There are, however, exceptions that are mostly attributable to decreasing overall exposures. The biggest increases in provisions were reported by central European banks (Figure 31).

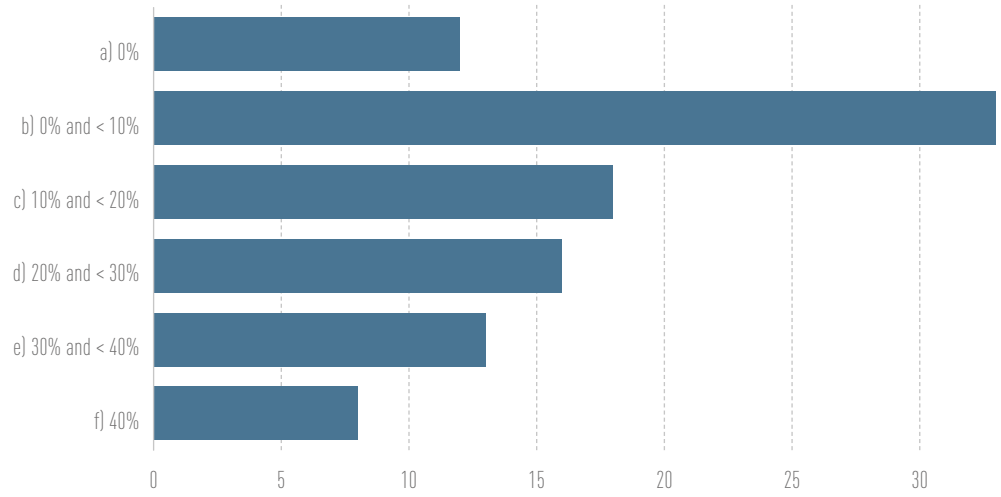
Figure 31: Year-on-year % change in provisions by country and by status of loan– June 2023
Source: EBA supervisory reporting data



The cost of risk (CoR) stood at 0.45%, unchanged during the last year. This is the lowest point since respective data has been available, and almost half of the reported levels during the pandemic. According to the results of the autumn 2023 RAQ, more than 70% of the banks expected CoR to be less than 50 bps, with only some banks expecting CoR to be larger than 100 bps. The expectation for low CoR contrasts with the broad assumption of asset quality deterioration (Figure 33). This could be explained by the presence of management overlays that banks have kept in their books since the pandemic. Around 90% of the banks have such overlays in place, according to RAQ results. These results also show that for more than 30% of the banks the share of overlays in total expected credit losses (ECLs) is above 0% and up to 10%, for another 34% between 10% and 30%. For slightly more than 20% of the banks the share of overlays in total ECLs even stands at 30% or more. The scope of these overlays has changed over time. Currently, the majority of these overlays are related to the impact of inflation on credit risk, while previously these were connected to the Russian war or the pandemic. Nevertheless, these overlays presumably cushion the need for additional provisions going forward (Figure 32).

Figure 32: Banks' expectations on cost of risk (top) and share of ECLs that is recognised via provision overlays (bottom)
Source: EBA Risk Assessment Questionnaire

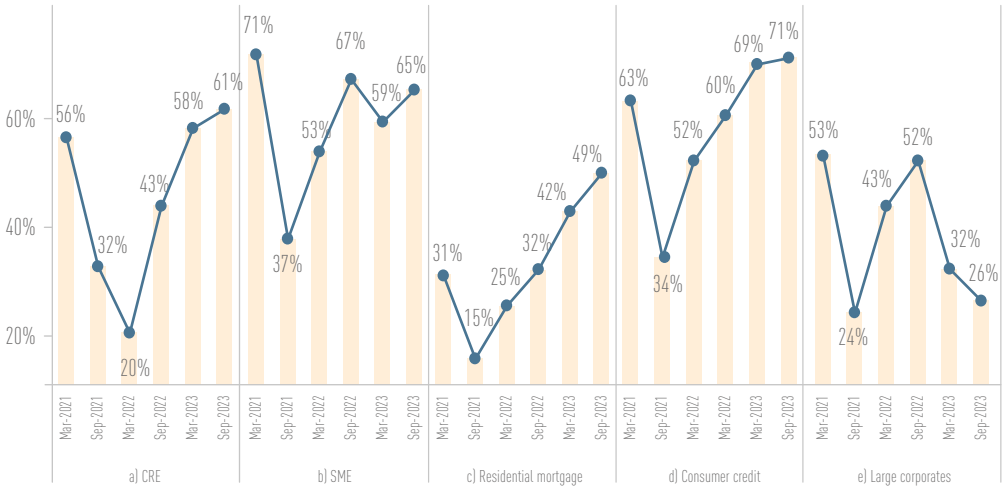




Banks' expectations on asset quality continue to worsen

According to the results of the autumn 2023 RAQ, an increasing number of banks expect broad asset quality deterioration in the following 12 months. Banks expect asset quality to mainly deteriorate in the consumer credit, SME and CRE segments (more than 60%), while a constantly increasing share of banks expect asset quality to also deteriorate for RRE-related exposures. Credit exposures prone to cyclical fluctuations, such as consumer credit or other unsecured debt, could be more vulnerable to downside risks. Yet unemployment, which is a major driver for the performance of these exposures, is at least stable in the EU. As macroeconomic uncertainty remains elevated, impacting consumer confidence and perhaps unemployment rates, asset quality could deteriorate rapidly in these segments (Figure 33).

Figure 33: Banks' expectations on possible deterioration in asset quality in the next 12 months by segment
Source: EBA Risk Assessment Questionnaire



Further increasing interest rates or rates staying higher for a long period, slower economic growth and inflation stickiness could aggravate downside risks for credit quality. Banks should remain vigilant and acknowledge the looming economic and other risks in their credit risk assessments. This is already reflected in the EBA's 2023 EU-wide supervisory examination programme, which provided clear directions for supervisory scrutiny, in particular related to borrowers' repayment capacity, the early detection of debtors and exposures in distress, adequate provisioning policies and timely recognition of loan losses as well as proactive application of forbearance or other measures. The 2024 programme continues to emphasise the general expectation of close monitoring of banks' asset quality.[42]

Various targeted support measures have been put in place in a rising number of countries to alleviate the impact of abruptly increased interest rates, mainly on vulnerable mortgage borrowers; downside risks remain elevated. As during the pandemic, there has been a rising number of countries applying moratoria and similar measures to address the impact from rising rates or elevated inflation. Such moratoria can be based on laws or can be initiatives of banking associations or the like. They include, for instance, caps on interest payments, payment holidays, suspension of penalty fees that should originally be paid if a loan is in arrears, and similar measures. In all cases where any form of forbearance is applied, banks need to apply proper credit risk assessment for respective borrowers and address any credit risk deterioration proactively. Banks should examine on a case-by-case basis the forbearance measures that are most suitable for each borrower.

[42] See the EBA's examination programme priorities for prudential supervisors for 2023 and the examination programme priorities for prudential supervisors for 2024.

3. Liability side: funding and liquidity

3.1. Funding

A long-term trend of a focus on customer deposits, as observed in past editions of the RAR, changed in 2023. After steadily growing customer deposit volumes over the past years, the volume growth slowed down materially in 2023. Central bank funding has become a less important source of funding as in previous years, as banks started to repay large amounts of long-term central bank funding they obtained. Concerning market-based funding, the share of debt securities issued in bank balance sheets increased in 2023. Issuance volume of market-based funding instruments was high, with a growing focus on senior unsecured instruments. The covered bond issuance volume increased as well. Issuance of market-based funding instruments increased in volume in spite of rising costs for debt securities in the rising interest rate environment, and overall more challenging market conditions amid increased volatility. The share of deposits from other credit institutions also increased.

Strongly decreasing use of central bank funding

The importance and volume of central bank funding, including long-term funding, for banks increased significantly during the pandemic. These funding facilities that central banks provided since the pandemic were an important factor in supporting market confidence in EU/EEA banks. In the euro area, favourable conditions of the TLTRO-3 long-term funding programme the ECB ran from 2019 to 2021, with opportunities to reduce funding costs at rates below market rates, made it favourable for banks to participate. The programme also provided interest earning opportunities for participating banks, although these were reduced when the ECB started its monetary tightening and it decided to apply the average applicable key ECB interest rates.[43]

From September 2019 until December 2021, when the programme ended, euro area banks took up a total of EUR 2,339bn of TLTRO-3 funds with durations of three years. The largest share of TLTRO-3 funds was allotted in 2020 and has matured in 2023. In the first half of 2023, over EUR 1.4tn of TLTRO-3 matured.[44] With high maturing volumes of TLTRO, banks' reliance on public sector sources of funding strongly decreased in 2023, and is expected to decrease further in 2024.

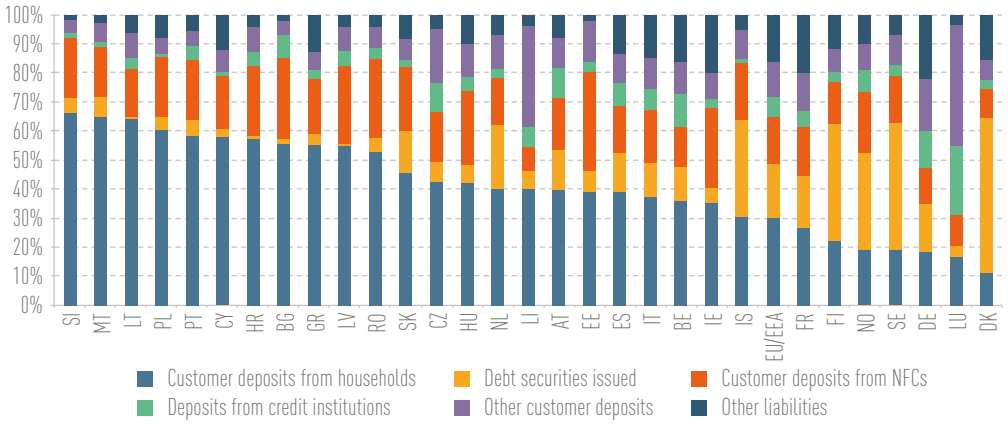
The large majority of euro area banks were in a position to comfortably repay or refinance their exposure to maturing TLTRO until Q3 2023. They often used their strong liquidity positions, with ample holdings of cash and high cash balances at the ECB, to repay parts of maturing TLTRO-3 amounts. Increased net issuance of debt instruments, in particular of covered bonds, was another way to repay this maturing central bank funding. For most banks exposed to TLTRO-3, cash balances they held at the ECB were above remaining outstanding TLTRO-3 amounts before maturity dates in 2023. Next to repaying maturing TLTRO-3, less favourable conditions for TLTRO-3 funding applicable since November 2022 reduced interest earning opportunities and might have implied early repayments before maturity dates. Early repayments were not least facilitated through additional windows for prepayments the ECB introduced.

The decreasing share of central bank funding on balance sheets is reflected in banks' financial liability composition. Other liabilities, which include deposits from central banks, strongly decreased to 15.9% in the first half of 2023, from 18.5% at the end of 2022. They are below the 16.8% reported in December 2019, when improved TLTRO-3 conditions were introduced (Figure 34).

[43] See ECB recalibrates targeted lending operations to help restore price stability over the medium term, October 2022.

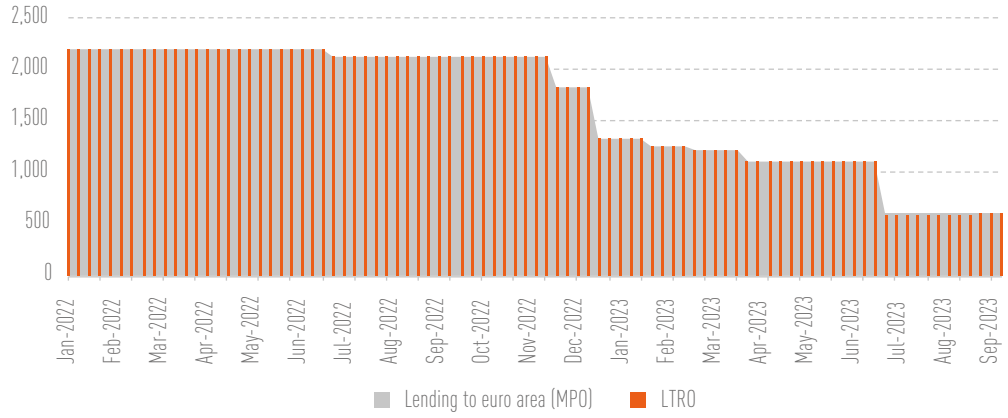
[44] Based on ECB data. ECB data does not reflect early repayments.

Figure 34: Breakdown of financial liabilities composition by country, June 2023
Source: EBA supervisory reporting data



In spite of large maturing volumes, over EUR 630bn of TLTRO-3 funding remains on euro area banks' balance sheets at the end of Q3 2023, that should be added to the amounts of attained Major Refinancing Operation (MRO) funding. This exposure, as well as some increased usage of MRO since the TLTRO-3 programme ended, underlines the continued relevance of central bank funding in banks' funding structures. In comparison, the usage of ECB funding facilities reached a high of EUR 900bn in the GFC, and approx. EUR 1.25tn in the sovereign debt crisis of 2011/12.

Figure 35: ECB lending to the euro area via monetary policy operations, with a focus on LTRO (EUR bn)[45]
Source: ECB



Central bank funding continues to support banks as it comes at low cost, while market-based funding costs have strongly increased amid rising interest rates. In particular, it supports those banks that may face challenges to obtain market-based funding at reasonable prices especially in a volatile market environment or because of weaker and uncertain market perceptions. However, central bank funding cannot offer an appropriate and lasting alternative to debt securities issuance or other forms of stable funding, not least since durations of central bank funding usually are short or medium term. EU/EEA banks' funding plans indicate expectations for a high net positive issuance volume on short-term and long-term unsecured and secured debt instruments in 2023 and 2024.[46] This may indicate plans to continue to repay some of remaining maturing TLTRO-3 funding by issuing more debt instruments, next to using cash balances. Such plans are in line with responses to the RAQ (spring 2023 edition), where using excess liquidity is indicated to be the most common intended action to repay maturing TLTRO funding, followed by covered bond issuance.[47]

[45] LTRO includes TLTRO-3.

[46] See the EBA's report on funding plans, July 2023.

[47] See the EBA's RAQ booklet, spring 2023.

Asset encumbrance declined with reduced central bank funding

In line with decreasing reliance on central bank funding, encumbrance of assets has decreased markedly. The overall asset encumbrance ratio decreased from 28.6% in June 2022 to 25.7% in June 2023 (29.2% in December 2019). The decrease was mainly numerator-driven, by a strongly decreasing volume of encumbered assets and collateral. While maturing central bank funding was an important driver of a declining encumbrance ratio, this decline was partly offset by higher covered bond issuance.

Until the beginning of 2022, high usage of central bank facilities was an important driver of high encumbrance of assets, and central bank funding was the main source of asset encumbrance. More than half of central bank eligible assets and collateral were encumbered in June 2022 (51.8%), after a strong increase during the pandemic. Since December 2022, as a result of strongly reduced central bank funding, covered bonds and repurchase agreements as traditional sources of encumbrance have become the major source of encumbrance, followed by central bank funding.([48])

Lower encumbrance levels provide an additional buffer for EU/EEA banks to access funding at a pricing below unsecured market funding, not least in a volatile market environment and amid an increased cost of funding. Lower encumbrance ratios also alleviate some risks for unsecured creditors as encumbrance subordinates them. Bank market turmoil in March 2023, when wholesale funding markets were temporarily not accessible, has demonstrated the importance of a sustainable funding mix and stable and secure access to funding. The overall increased availability of unencumbered assets also limits potential downside risks of an adverse feedback loop in a potential situation of liquidity constraints.

Deposit volume growth slowed down

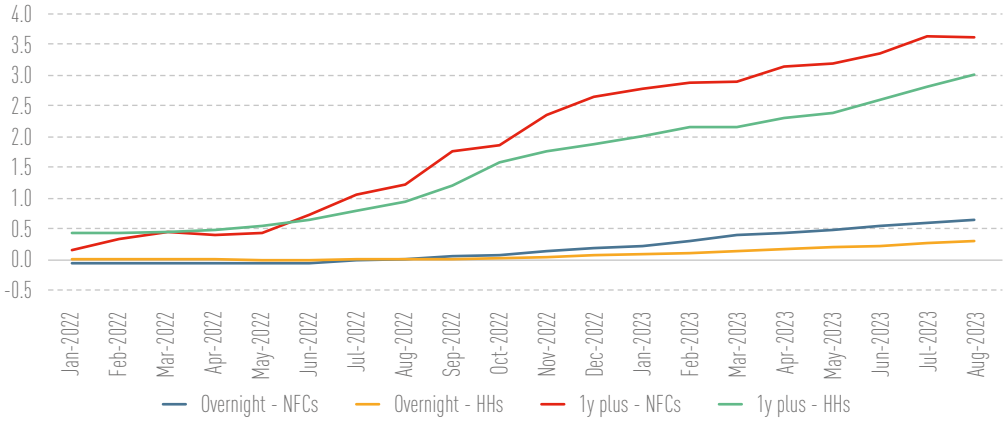
Deposit volumes continued to slightly increase in 2023. Yet the long-term trend of strongly growing deposit volumes slowed significantly, with deposit growth of 4.2% in 2022. Volume growth slowed down to 1.1% between June 2022 and June 2023, and to 0.8% in the first half of this year. The share of deposits from NFCs in total financial liabilities slightly increased from 15.7% in June 2022 to 16.2% in June 2023, while the volume only increased marginally by 0.1% (Figure 34). Household deposits increased by 1.7%, and the ratio to total liabilities increased from 28.9% to 30.3% between June 2022 and June 2023. Banking turmoil related volatility, in which fast outflows of high deposit volumes led to the failure of some medium-sized US banks, did not have any major impact on deposits held at EU/EEA banks. Yet the episode showed that deposits have become more volatile in digitalised banking, and close monitoring of deposit flows is warranted.

The uncertain macroeconomic environment with high inflationary pressures and increasing policy interest rates have affected deposit growth dynamics. After strong deposit growth during the pandemic, the slowing may be attributable to households partly resorting to deposits for their spending in the inflationary environment amid decreasing real incomes and purchasing power, but also to moves into other means of investments. High consumer spending amid pent-up demand during the pandemic may also still affect deposit volumes. Moreover, the increasing cost of lending in the high interest rate environment further incentivises the use of deposits for households and NFCs rather than taking up new lending, or the use of amounts saved in deposits to repay the lending. Nor did the rather low elasticity of deposit rates in response to rising policy interest rates, in particular for sight deposits, offer strong incentives for clients to deposit higher volumes (see box on deposit betas in Chapter 5). Continued high volumes of NFC deposits nevertheless show that corporates aim to maintain solid liquidity positions amid high uncertainties about the economic environment and the further path of interest rates.

Deposit rates only increased slowly in the euro area since repeated policy rate rises started in July 2022. The cumulative increase of average deposit rates has on average been substantially less than the cumulative increase in the ECB deposit rate facility. The elasticity of deposit rates in response to the ECB deposit rate facility in the ongoing monetary policy tightening cycle is also estimated to be lower than in previous periods of ECB rate rises. For NFC deposits, the deposit rate increase was nevertheless faster in 2023 than for household deposits. The price elasticity of euro area deposit rates also varies across countries and is estimated to be lower than in the current policy interest rate rising cycle in the US and UK. Negative deposit rates, which became more widespread until the first half of 2022 amid negative policy interest rates, were widely abolished since negative policy rates ended (Figure 36).

([48]) See the EBA 2023 report on asset encumbrance from July 2023.

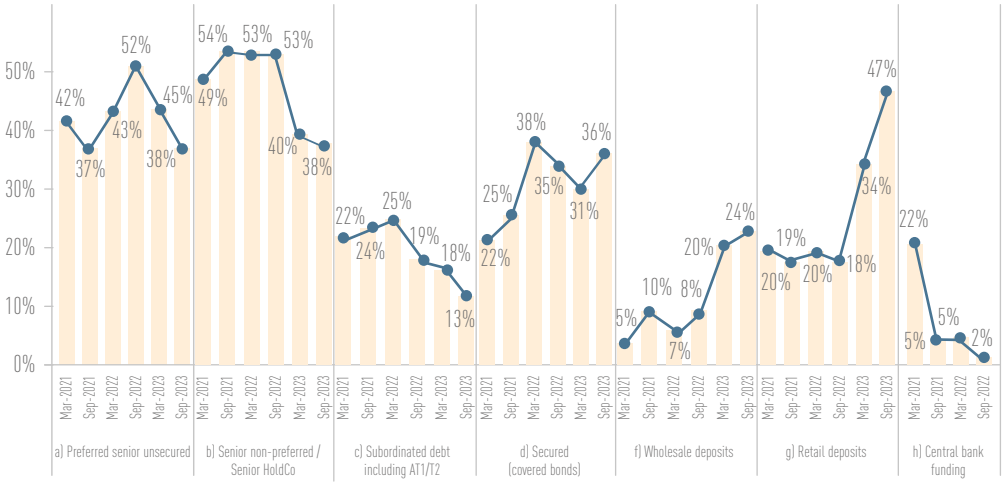
Figure 36: Euro area average deposit rates, overnight and with maturities above one year; new business, households and NFCs (%)
Source: ECB



Strong focus on deposits going forward

On plans for future funding mixes, responses to the RAQ suggest that the share of banks intending to focus on deposits going forward has increased strongly compared to past iterations of the RAQ. With 47% of respondents agreeing to attract more retail deposits, deposit funding is the most popular source of funding banks intend to attract in the next 12 months, ahead of intentions to attract unsecured funding (Figure 37). The latter had been the most attractive source of funding in previous RAQ editions. Next to a planned strong focus on retail deposit funding, the share of banks with plans to focus on wholesale deposits has strongly increased as well, with 24% of respondents agreeing. Furthermore, 75% of respondents intend to increase household deposit rates, and 76% plan to increase deposit rates for NFCs. This would lead to increasing deposit funding costs and affect banks' NII and as such profitability, given the high share of deposits in funding mixes. Plans to focus on deposit funding while overall deposit growth is slowing down also raises questions about the feasibility of such plans, and about further upward pressure on deposit pricing. EU/EEA banks' funding plans confirm plans to further increase deposit volumes, with plans to grow deposits by 2.8% in 2023, and by 3.5% in 2024.([49]) Yet funding plan data was submitted in Q1 2023, and might no longer fully reflect banks' plans in late 2023.

Figure 37: Funding instruments banks intend to focus on in the next 12 months
Source: EBA Risk Assessment Questionnaire

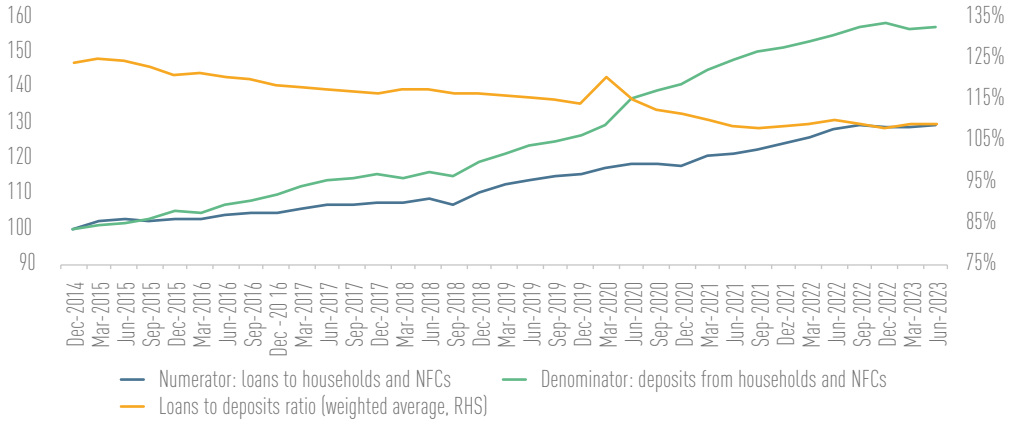


([49]) See the EBA 2023 report on funding plans from July 2023.

A no longer increasing volume of loans to households and NFCs (see Chapter 2.1), and slower growth of deposit volumes resulted in a relatively stable loan-to-deposit ratio. It stood at 109.2% in June 2023, and at the same level as in June 2022, after a long-term declining trend of the past years (Figure 38).

Growing deposit volumes until 2022 supported banks to maintain strong lending. Going forward, no longer growing deposit volumes may have an impact on banks' capacity to increase lending in support of the economy, especially when lending demand might increase again (see Chapter 2.1).

Figure 38: Loan-to-deposit ratio (weighted average) and loan-to-deposit ratio dynamics (trends in numerator and denominator; December 2014 = 100), over time
Source: EBA supervisory reporting data



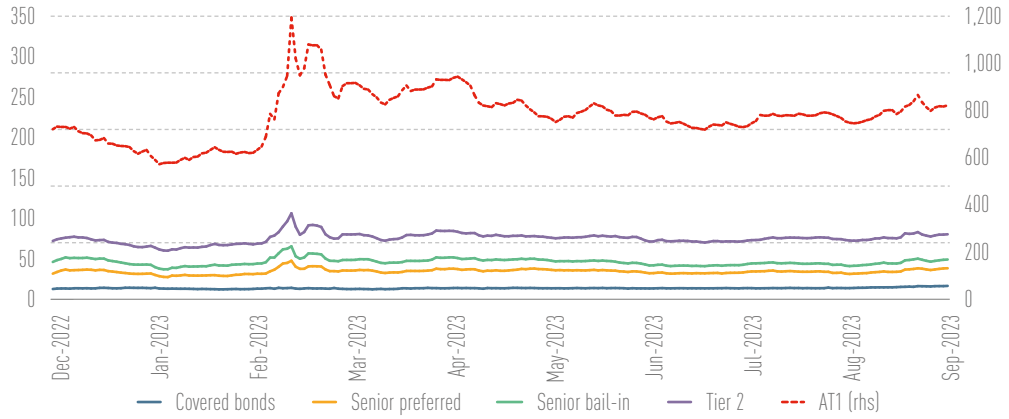
Spread and pricing trends: heightened market volatility and temporary challenges

A period of high volatility since the beginning of the Russian war of aggression against Ukraine in February 2022 and amid beginning monetary tightening ended in October 2022. This period was characterised by both strongly widening and contracting spreads and high fluctuations. Since then, spreads tightened gradually and substantially until early March 2023, when market conditions were overall supportive for market funding amid an outlook of lower inflation and improving earnings perspectives of banks amid rising interest rates (see Chapter 1).

The market situation changed suddenly in early March 2023 with the failure of some medium-sized banks in the US and of CS in Switzerland. This was accompanied by temporarily worsening market perceptions for the banking system, and especially for unsecured bank debt instruments. Market volatility spiked and spreads for unsecured market instruments widened substantially to levels last observed in October 2022 (Figure 39). Bank funding markets were temporarily not accessible, and primary secured and unsecured issuance activity came to a halt. Meaningful issuance activity of unsecured instruments commenced again after two weeks. The situation improved since April and volatility returned to rather low levels as observed at the beginning of the year, with spreads gradually tightening again until September 2023. Additional bouts of higher market volatility were observed after the March banking turmoil, although financial markets were less volatile overall than in the March 2023 episode and for most of 2022. Slightly widening spreads were observed since September, often driven by rising sovereign yields. Spreads for market funding instruments remained wider in Q3 2023 than before the bank failures of March 2023. Bank funding markets in 2023 continued to be susceptible to adverse news, such as political events and adverse economic news, especially to news related to inflation as well as energy and commodity prices, as it is reflected in spread indices (Figure 7).

The spreads of the main types of debt instruments showed a diverging trend in 2023. While covered bond spreads broadly remained stable during the year, unsecured spreads were more volatile, with a spike of volatility amid bank sector turbulence in early March 2023. Whereas spreads for SNP instruments decreased by the end of September compared to the beginning of the year, spreads for Tier 2 and AT1 were higher than in the beginning of the year (Figure 39). The latter instrument types were particularly affected by bank market turmoil in March when investor concerns about loss absorption of instruments lowest ranked in the capital stack mounted (see the textbox on the AT1 market during and after the March banking turmoil in Chapter 4). These concerns were also an important factor for a near standstill in issuance activity of Tier 2 and AT1 instruments after the turmoil until July 2023, and for their heightened pricing since then.

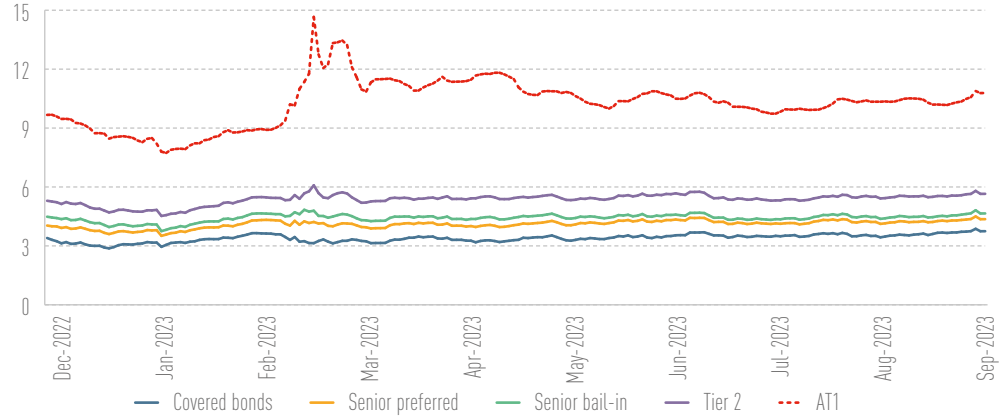
Figure 39: Cash spreads of banks' debt and capital instruments (in bps)
Source: IHS Markit ([50])



Uncertainty about the further course of monetary policy tightening additionally contributed to substantial interest rate volatility. Volatility was highest in short-term interest rates, in particular at times of heightened market uncertainty about inflation and the further course of monetary tightening. After having been at negative rates for a long time, EURIBOR rates of all durations turned positive in August 2022, and strongly increased further since then in line with policy interest rate rises. Amid strongly increasing interest rates across durations, the interest rate differential between ESTR one-day rates and EURIBOR rates for up to 12 months decreased gradually in line with the perception of reduced uncertainty to an extent on the future course of policy rates and on inflation expectations, and was very limited only by October 2023 (Figure 5).

EURIBOR rates are an important pricing indicator for other interest-rate-related products, and their high volatility was not least reflected in high price volatility of bank funding instruments. Moreover, yields for all types of funding instruments increased in 2023, in line with increasing policy interest rates. High volatility was also an important factor for temporarily strongly reduced debt instrument issuance volumes, when adequate pricing levels were difficult to identify for both issuers and investors and demand was low.

Figure 40: Absolute yields of banks' debt and capital instruments (in %)
Source: IHS Markit



([50]) With regard to IHS Markit in this chart and any further references to it in this report and related products, neither Markit Group Limited ("Markit") nor its Affiliates nor any third-party data provider make(s) 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 nor 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.

Spreads for bank funding instruments are widely expected to remain heightened amid high uncertainties about the further path of inflation and the speed of projected disinflation, and a subdued economic outlook. Pricing for debt instruments and volatility of interest rates are also expected to remain elevated while monetary policy stances remain tight. This may pose some challenges in attaining market-based bank funding at reasonable pricing at all times, not least for banks with weaker fundamentals or market perceptions. Such banks may not least face challenges in finding periods of less volatility and windows of opportunity to issue when pricing is most attractive.

High volume of instruments issued in spite of volatile markets and increased total pricing

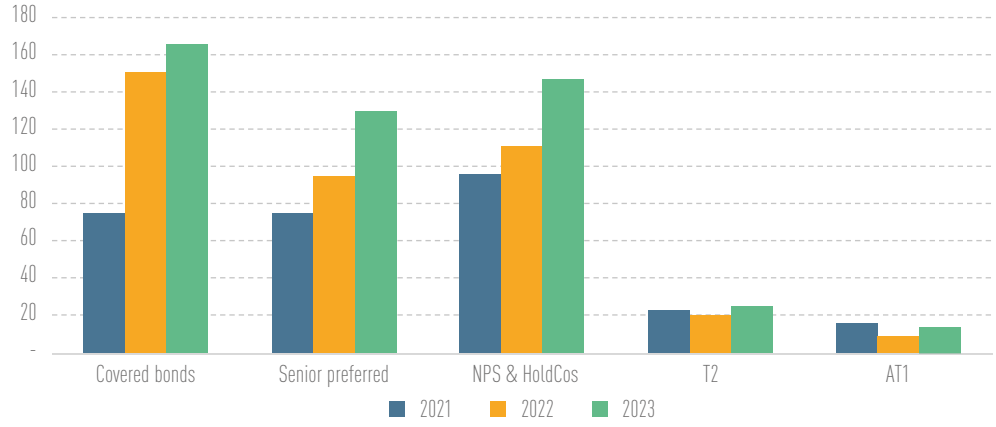
In spite of rather volatile interest rates and substantially increased total pricing and absolute yields for funding instruments, banks nevertheless made use of longer episodes of calmer markets and spread tightening in 2023 than in the previous year to issue higher volumes of unsecured debt in 2023 compared to 2022.

Primary funding market activity was very high in the beginning of 2023 when banks made use of a temporary period of decreasing spreads to issue high volumes of unsecured debt instruments and speed up their funding plans for the year. Market conditions materially deteriorated and primary activity came to a temporary halt with bank market turmoil in March. While meaningful debt issuance activity of secured and senior unsecured instruments resumed soon thereafter, it took much longer for issuance activity of subordinated instruments, in particular Tier 2 and AT1, to resume.

Since April, issuance of unsecured instruments continued at an overall high level, in spite of higher spreads than before March for most instrument types since then. Since July, meaningful issuance activity of Tier 2 and AT1 instruments also resumed (see also box on AT1 markets following the March banking turmoil in Chapter 4). The aggregate issuance volume of unsecured debt instruments was higher in the first nine months of 2023 than at the same time in 2022 (Figure 40). Issuance activity was rather unevenly distributed across the year, as already observed in 2022, with high issuance activity in times of temporarily less volatility and contracting spreads, and low issuance activity in periods of volatile interest rates and wide spreads. Episodes with benign conditions and higher primary activity were nevertheless longer in 2023 than last year.

Higher unsecured debt issuance volume in the first nine months of 2023 was reported for all major types of unsecured and subordinated debt instruments. Issuance volume was in particular higher for issuances of preferred senior unsecured debt and senior debt eligible for MREL, such as senior debt from HoldCos and SNP debt. Issuance volume of subordinated instruments, in particular of T2 and AT1 capital instruments, also increased in 2023, in spite of a prolonged period – in the case of AT1s of more than three months (see textbox in Chapter 4 on AT1 markets after the CS AT1 bonds write-down) – of almost no issuance of such instruments after the bank market turmoil in March 2023. Issuance activity of SNP instruments was high in 2023, not least driven by the need to meet MREL requirements by January 2024, while offering price advantages for issuing banks compared to T2 and AT1 instruments (Figure 41).

Figure 41: Issuance volumes of EU banks' debt and capital instruments in the EU, Q1 – Q3 2021 — 2023 (in EUR bn)[51]
Source: Dealogic, EBA calculations



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

The vast majority of banks have been able to comfortably issue unsecured debt since markets calmed down again after the bank market turmoil in March 2023. Generally, large and medium-sized banks have been able to issue instruments across the capital stack in 2023. Some challenges in issuing subordinated and loss-absorbing instruments ranked lowest in the capital stack, such as AT1 bonds, at reasonable pricing nevertheless persist for some smaller banks and those with heightened risk perceptions across the EU/EEA. Challenges are not least aggravated by concerns about investor reception. Based on market intelligence there are also indications that banks across the board had to offer higher premia at issuance in 2023 than in the past. Going forward, some challenges in issuing subordinated and loss-absorbing instruments are expected to continue, given heightened volatility and slightly increased pricing since Q3 2023. Continued high interest rates and spread volatility for instruments across the capital ladder, but especially for debt ranked low in the capital stack, may pose additional challenges.

Plans for lower volumes of unsecured and subordinated debt funding

Responses to the RAQ indicate bank plans for a lesser focus on unsecured funding activities than observed in 2023. Although the share of banks planning to focus on preferred senior unsecured funding and SNP funding remains high (38% agreement each), there is no longer a majority of banks with such plans, as observed in the autumn 2022 RAQ. Attaining subordinated debt instruments, including AT1 and T2 capital instruments, is expected to further decrease in relevance in the next 12 months, with only 13% agreement to attain more subordinated funding (Figure 37). Instead of a focus on unsecured and subordinated instruments, RAQ responses rather indicate a strongly increasing focus on deposits (see above), and also on covered bonds. A decreasing focus on SNP funding and on subordinated instruments, including AT1 and Tier 2 capital instruments, could be explained by the requirement for banks to meet their MREL targets by 2024 (transition periods can impact the final date), with fewer incentives to further optimise capital structures for banks which have already met their targets, and to issue or to roll over higher volumes of such instruments.

Bank funding plans confirm a decreasing focus on SNP instruments in 2024 compared to 2023. As regards preferred senior unsecured funding, funding plans indicate expectations of an increasing volume in 2024, which is contrary to expectations expressed in the RAQ. The volume of unsecured instruments issued from holding companies as well as of AT1 instruments is expected to broadly remain at the same volume in 2024 as this year, according to the funding plans. Yet the plans suggest an increasing volume of Tier 2 instruments in 2024.[52]

Almost half of respondents to the RAQ expect pricing for all types of unsecured instruments across the capital ladder to broadly remain stable next year. In addition, a much larger share expects pricing for such instruments to decrease in the next 12 months than to increase, indicating majority expectations that interest rates, but also spreads, will not increase further.

High volumes of covered bond issuance

The issuance volume of covered bonds in the first three quarters of 2023 was substantially higher than in the same period in 2022. The trend of increased issuance volume, already observed last year, continued. Several factors might explain the high covered bond issuance volume in 2023, such as the volume of maturing bonds. Many issuing banks also benefitted from opportunities to attain funding at lower costs than via unsecured funding in a volatile market environment. They also benefitted from inherent higher security for investors. Covered bonds especially gained relevance for bank funding when participating banks needed to replace large volumes of long-term central bank funding (TLTRO-3) maturing in 2023. Further TLTRO-3 maturities in 2024 are expected to support covered bond issuance volumes.

Going forward, prospects are for continued high covered bond issuance volumes. The share of respondents to the RAQ intending to attain more covered bonds in the next 12 months slightly increased to 36% (35% in autumn last year), although expectations are that covered bonds may become a less relevant funding focus than attracting retail deposits. Also banks' funding plans indicate high expected covered bond issuance volumes in 2024 and beyond. Higher expected issuance volumes may partly be driven by the high volume of maturing covered bonds in the next two years.

Attaining required amounts of MREL ahead of the target date

In the EU, banks with a resolution strategy other than liquidation represent about 80% of

[52] See the EBA 2023 report on funding plans from July 2023.

total banking sector assets. Resolution strategies entail an MREL above minimum capital requirements requiring banks to build loss-absorbing capacity, with additional funding needs of eligible instruments. Requirements to build loss-absorbing capacity have been an important driver for increased issuance volumes of in particular SNP instruments or senior unsecured debt issued from holding companies.[53]

As of March 2023, the large majority of banks had attained their required amounts of MREL-eligible instruments. On average, MREL-eligible resources including own funds reached 33.2% of RWA for Global Systemically Important Institutions (G-SIIs), 35.6% of RWA for Other Systemically Important Institutions (O-SIIs) and 26.2% of RWA for other banks, of which 28.2%, 27.7%, 20.1% of RWA subordinated. But some banks still need to close shortfalls of required eligible amounts. The EBA estimates that out of 236 resolution groups included in its MREL monitoring, 57 banks, representing 13% of the sample in terms of total assets, are not yet reaching their target, resulting in an external MREL shortfall plus CBR of approximately EUR 29.2bn[54]. Of this, EUR 13.8bn among 38 banks is due by 1 January 2024, EUR 15.4bn among 19 banks is due after 1 January 2024. Overall, the shortfall appears marginal at 0.4% of RWA of the sample but can remain non-negligible in some Member States, reaching up to 8% – albeit somewhat supported by longer transitional periods.

From the resolution groups included in the monitoring, the majority of the shortfall relates to smaller banks that are neither G-SIIs nor O-SIIs (34 banks) and the rest with O-SIIs (seven banks). G-SIIs no longer report MREL shortfalls since 2022.

On top of the outstanding shortfall, banks in the sample reported EUR 167bn of MREL instruments becoming ineligible one year from March 2023 for falling below the one-year remaining maturity criteria. EUR 63.2bn relates to G-SIIs, EUR 88.1bn to O-SIIs and EUR 15.4bn to other banks. EUR 59bn relates to SNP or senior Holdco instruments, EUR 88bn relates to senior debt. EUR 20bn relates to other MREL-eligible instruments.

Significant issuance activity of instruments eligible for MREL has taken place after the March banking turmoil, and it is expected that shortfalls of eligible amounts have further reduced since then. Looking at instrument types that banks plan to issue to maintain their MREL targets, or to meet their targets, responses to the RAQ show that a large majority of respondents (78%) intend to focus on issuing SNP instruments and senior unsecured debt issued from holding companies to meet or maintain their MREL targets. 54% intend to issue senior preferred instruments, while only 18% have plans to issue subordinated instruments, including Tier 2 and AT1 instruments. The preference for SNP and senior unsecured instruments can be explained by the price advantage these instruments offer compared to subordinated instruments, while nevertheless being eligible for loss-absorbing amounts.

[53] Structurally subordinated debt issued via a clean holding company.

[54] See the EBA MREL Dashboard Q1 2023.

Box 4: State of play of EU/EEA banks' MREL funding and resolution planning

As of May 2023, external MREL requirements expressed as a share of RWA were 23.3% for G-SIIs, 22.8% for O-SIIs and 21.2% for other banks. MREL is calibrated on the basis of institutions' own funds requirements and as such it varies in line with those. In addition, the combined buffer requirement sits on top of MREL expressed in terms of RWA, reaching an average of 4.1%, 4.0% and 3.5% respectively for G-SIIs, O-SIIs and other banks.[55]

MREL is calibrated for a bail-in strategy for the vast majority of banks in terms of total assets. Overall, the EBA finds that MREL decisions for banks with a bail-in strategy cover 95% of the RWA of the sample of institutions for which the MREL decision has been above own funds requirements, but 68% in number of banks. This reflects the fact that transfer strategies are preferred for smaller banks. Average MREL for banks with a bail-in strategy is 22.9% of RWA and 19.2% of RWA for banks with a transfer strategy.

MREL-eligible deposits can reach up to 7% of RWA for the smallest banks. Deposits of large corporate clients with a maturity over a year are eligible under BRRD. This is particularly the case for resolution entities that are neither G-SIIs nor O-SIIs, in particular those with total assets below EUR 50bn.

[55] Under Commission Implementing Regulation 2021/622, resolution authorities are required to report by the end of May the MREL decisions in force as of 1 May.

As of May 2023, the EBA has received MREL decisions for 307 resolution entities and 184 non-resolution entities (internal MREL). Resolution authorities are required to report their MREL decisions to the EBA in May of every year. Overall, resolution banks represent around 80% EU total assets. Internal MREL ensures that externally issued resources of the resolution entity are down-streamed to the most relevant entities within a resolution group so as to support the execution of the preferred resolution strategy.

But loss-absorbing capacity is only one element supporting resolution and banks need to continue to progress on resolvability overall. As the March banking turmoil has demonstrated, loss-absorbing capacity does not mean resolvability and banks need to ensure they have in place and are able to maintain on a continuous basis the capabilities necessary to best support the implementation of the preferred resolution strategy. The EBA has published a number of guidelines to that end, and is actively monitoring authorities' work via the European Resolution Examination Programme. ([56])

Also related to MREL instruments, including AT1 and T2 instruments, the EBA published an updated report on their monitoring.([57]) According to this report, the EBA has observed valuable efforts of institutions to limit the complexity of own funds and eligible liabilities instruments as well as convergence and standardisation in terms of drafting of the terms and conditions of the instruments and issuance programmes. This is not least the result of the implementation of previous EBA recommendations regularly published and communicated by supervisors to the institutions under their remit. Going forward, issuers are expected to avoid unduly complex terms and conditions in their own funds and eligible liabilities issuances so they can retain a high level of standardisation.

([56]) See EBA resolvability testing guidelines, EBA resolvability guidelines, EBA transferability guidelines, EBA bail-in mechanics guidelines. See also EBA 2023 European Resolution Examination Programme, first EBA European Resolution Examination Programme Report from August 2023.

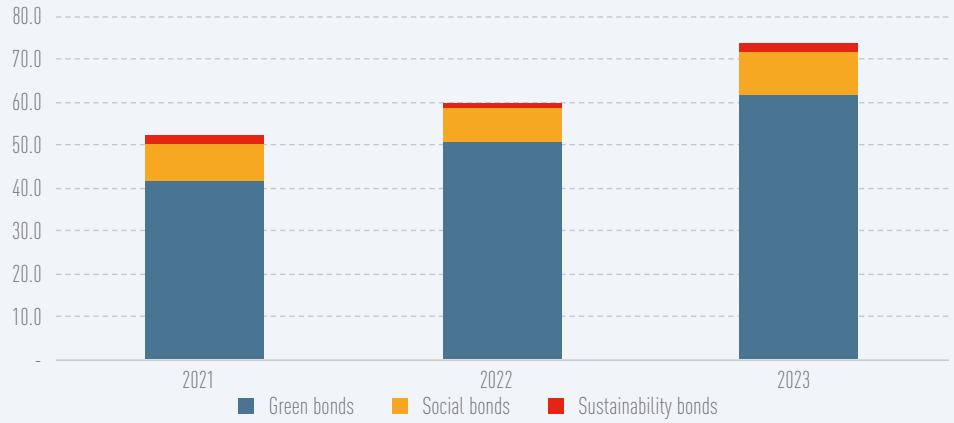
([57]) See the EBA's Report on the monitoring of Additional Tier 1, Tier 2 and TLAC/MREL-eligible liabilities instruments of EU institutions from July 2023.

Box 5: ESG bond markets have remained active

ESG bonds have matured since their inception and have become a common bank funding instrument. According to the RAQ, 64% of responding banks have already issued green bonds (excluding covered bonds), and 25% green covered bonds. A combined 30% have also issued proceeds-based social bonds and/or sustainability bonds. Almost a third of respondents have not yet issued any type of ESG bond.

Based on market data, the total issuance volume of both green bonds and sustainable bonds increased in the first nine months of 2023 compared to the first nine months of 2022 (Figure 42). The increase was mainly attributable to strongly increased green SNP bonds and green senior unsecured bonds issued from holding companies. The volume of green senior preferred bonds and of green covered bonds also increased slightly. However, total bank instrument issuance volume grew faster than green bond issuance volume, and the ratio of green bonds to total bank debt issuance volume declined in 2023. The share of green bond issuances also declined for most secured and unsecured instruments but increased for SNP bonds and senior unsecured bonds issued from holding companies.

Figure 42: Issuance volumes of green, social and sustainability bonds issued by EU/EEA banks, Q1–Q3 2021–2023 (EUR bn)
Source: Dealogic, EBA calculations



In a similar way to bank funding markets more broadly, ESG bond issuance also came to a halt in the aftermath of the March banking turmoil, but it resumed shortly after issuance of conventional bonds had restarted. ESG bond issuance activity was also reduced at times of heightened volatility, when issuers still prefer to issue conventional debt instruments.

These developments in issuance activity also coincide with premia differentials for green bonds compared to conventional bonds. A "greenium" – a potential pricing advantage (premium) for green funding or financing instruments – has often been observed (see last year's RAR). The greenium is considered to be a result of factors other than credit risk, such as demand for green products continuing to exceed supply, with an increasing number of funds which have committed to only investing in ESG products. The average greenium for senior preferred bonds was negative (i.e. offering a pricing advantage) for most of 2023. However, after the banking sector turmoil in March, the greenium even turned partially positive, before again moving into negative territory. The partially positive greenium for some time in spring implies that returns demanded by investors on green bonds exceeded those of conventional bonds amid uncertain market conditions at that time, showing that green bonds are not considered safer but bearing risks similar to – if not higher than – those for conventional bonds in times of stress.[58]

[58] Analysis and conclusions based on different sources, including anecdotal evidence and, for example, the greenium analysis for corporate bonds in AFME's Q2 2023 ESG Finance Report (data as of July 2023).

3.2. Liquidity

Banks' liquidity monitoring has gained importance following the March banking turmoil. Inappropriate liquidity levels and shortcomings in liquidity risk management were identified as key determinants on the SVB failure.[59] For EU/EEA banks liquidity remained high but showed a decreasing tendency since mid-2022. As of June 2023, the LCR stood at a comfortable 160.9% and the NSFR at 126.5%. EBA funding plans also indicate expectations of further decreasing liquidity positions in 2023.[60]

[59] See the BCBS report on the 2023 banking turmoil from October 2023.

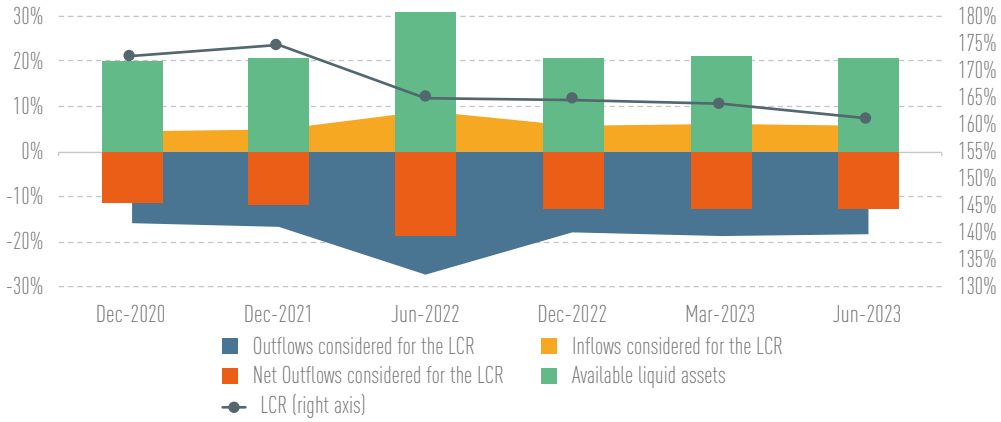
[60] See the EBA's report on funding plans from July 2023.

Banks' LCR decreased in 2023 but remains high

The ca. 175% peak in banks' LCR level as of December 2021 can be explained by the accommodative monetary policy of central banks to address the outbreak of the COVID-19 pandemic and its consequences on the economy. After this peak, the LCR of EU/EEA banks has gradually declined. Following the outbreak of Russia's war against Ukraine and the removal of excess liquidity by central banks, both in the form of repayment of remaining amounts of TLTRO-3 and the quantitative tightening announced by the ECB in December 2022, the LCR decreased to about 165% until December 2022. The downward trend continued during the first half of

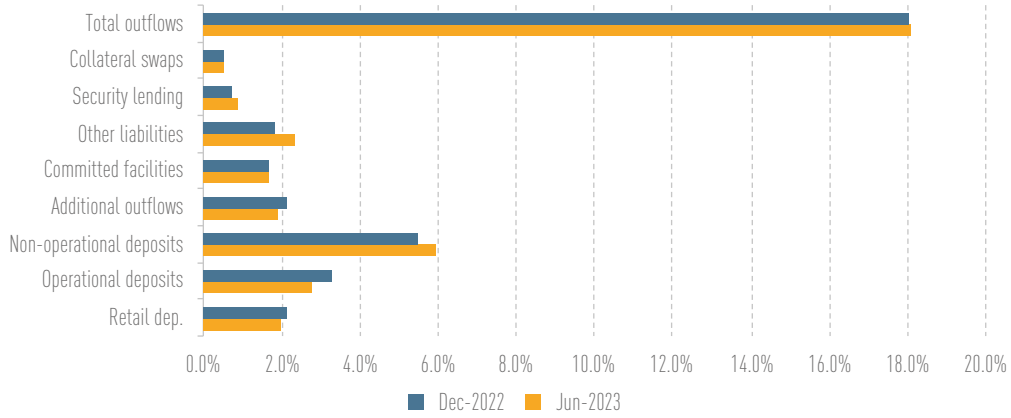
2023. The decline of liquid assets – the numerator of the LCR – was the key driver for this development. As of June 2023, they decreased by 5% YoY, which was above the decrease observed in net cash outflows (2.1% YoY; Figure 43).

Figure 43: LCR evolution and main components of the LCR as a share of total assets
Source: EBA supervisory reporting data



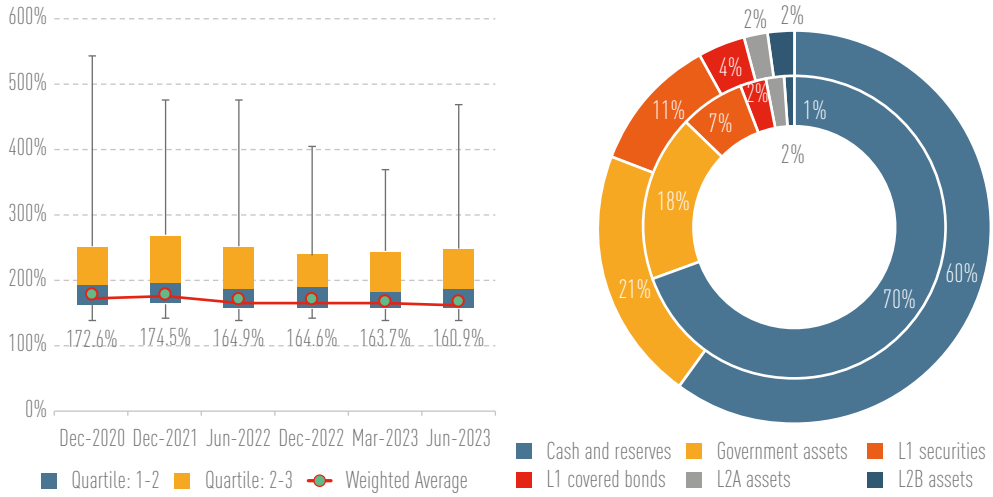
The increase in gross outflows between December 2022 and June 2023 was mainly driven by growing outflows from other liabilities, including derivatives, and non-operational deposits. Outflows from derivatives increased not least due to negative valuation effects amid elevated market volatility (Figure 44).

Figure 44: Evolution of gross outflow requirement (post-weights) as a share of total assets
Source: EBA supervisory reporting data



Liquid assets decreased between June 2022 and June 2023, explained by a decline in cash and reserves of 2.7% of total assets, while the rest of the categories of liquid assets increased. With regard to the composition of the liquidity buffer, there were changes since June 2022. As of June 2023, cash and reserves remained the main source of high-quality liquidity assets (HQLA), accounting for 60% of the liquidity buffer, but declined from a share of 70% in June 2022. In parallel, the share of government assets and level 1 securities increased in the total liquid assets available, representing 21% and 11% of total liquid assets, respectively (Figure 45; on the rising government assets see also the analysis showing banks' rising sovereign exposures in Chapter 2.1).

Figure 45: Banks' distribution of the LCR (median, interquartile range, 5th and 95th percentiles) and composition of liquid assets as of June 2022 (inner circle) and June 2023 (outer circle)
Source: EBA supervisory reporting data



Cash and reserves had increased considerably since the outbreak of the pandemic in March 2020, in particular for euro area banks, following the introduction of TLTRO-3 (on TLTRO-3 see Chapters 1 and 3.1). However, the slight increase in outflows due to the withdrawal of non-operational deposits, the repayment in June 2023 of TLTRO-3 and market devaluation triggered the drop of cash and reserves. Monitoring the evolution of banks' LCR levels is particularly relevant amid the period of monetary policy tightening and the deteriorated economic outlook.

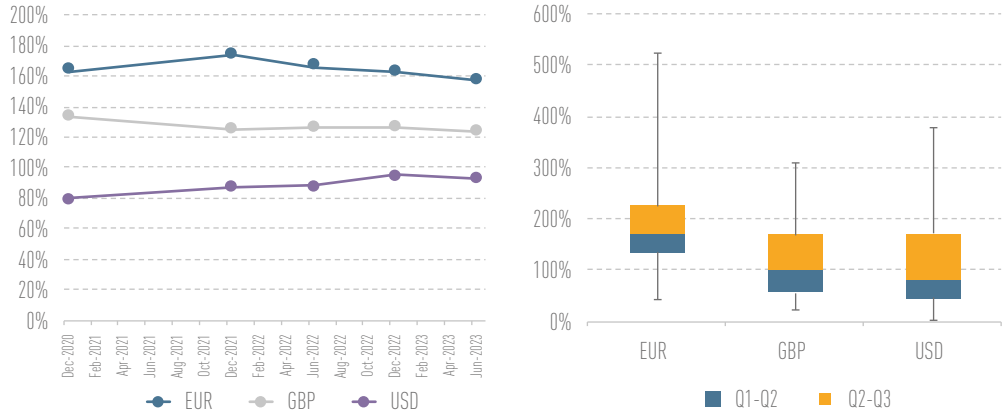
Amid central banks' QT, banks might need to modify their liquidity strategies. Where necessary, the composition of their HQLA might need to be changed in order to retain liquidity buffers and to withstand the drop in cash and reserves with other kinds of instruments such debt securities (on QT see Chapter 1). Furthermore, there are discussions that the ECB might increase its MRR ratio from currently 1%. Such an increase would not only negatively affect NII, but also have an adverse effect on banks' LCR. This is because required reserves do not count towards the LCR.

Liquidity positions in foreign currencies tend to be significantly lower

The liquidity position of banks differs widely when is assessed by currency. While EUR LCR values were significantly above 100% as of June 2023, LCR values for other currencies are significantly lower. Accordingly, liquidity positions show possible vulnerabilities for banks when analysed at currency level. EU/EEA banks' GBP LCR was reported at 122% as of June 2023 (GBP LCR ratio of 126% as of June 2022), while the first quartile of the GBP LCR was below 100%.

Whereas the USD LCR has been consistently below 100%, it has increased during the last year (92.7% as of June 2023, up from 88.2% as of June 2022). 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. These results indicate that the surplus in liquidity coverage at aggregate level offsets the liquidity shortfall in USD. The EU liquidity regulation does not require banks to hold LCR levels in foreign currencies above 100%. However, low levels of LCR in one or several foreign currencies may create vulnerabilities in periods of high volatility, as opportunities for banks to raise funding in other currencies or to cover the risk of foreign exchange on markets may be undermined (Figure 46).

Figure 46: Evolution of the LCR by currency (left) and dispersion of the LCR by currency (median, interquartile range, 5th and 95th percentiles, right; both for EUR LCR,GBP LCR,USD LCR)
Source: EBA supervisory reporting data



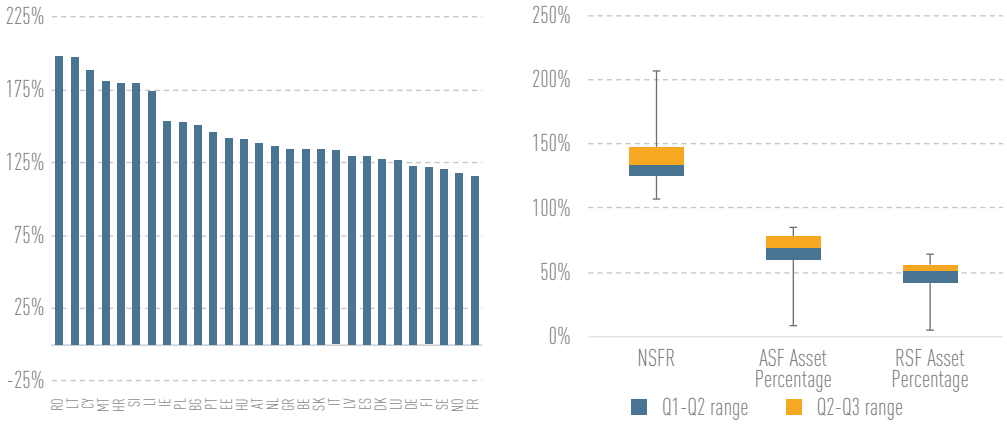
This became particularly obvious amid a significant widening of the USD-EUR cross-currency basis swaps at the end of September 2022. The widening indicates that USD funding became more expensive for euro area banks. Although the costs declined in the first quarter of 2023, the March banking turmoil also triggered a sharp increase in costs of USD funding. The combination of an LCR in USD below 100% and the rising costs for USD funding might pose a risk for some banks, in case they need to quickly fill liquidity gaps in USD (Figure 47).

Figure 47: Evolution of the cross-currency basis swaps
Source: Bloomberg

The NSFR shows a comfortable level for banks in all jurisdictions

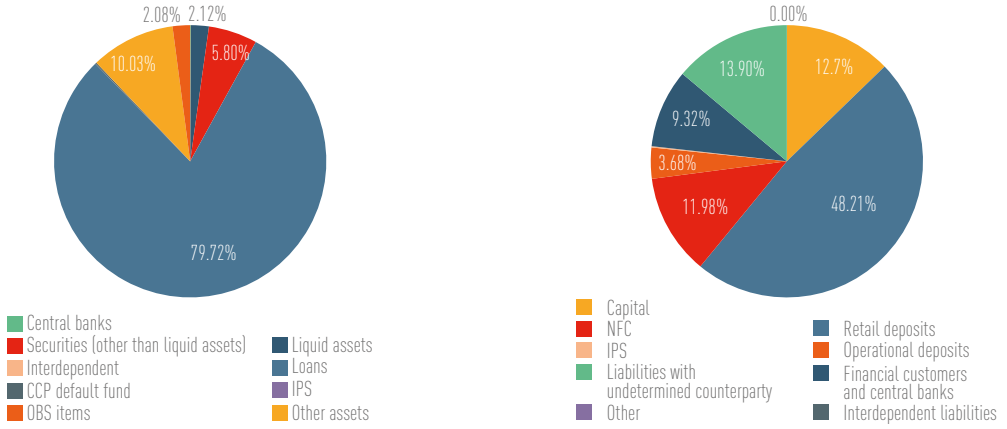
The NSFR stood at 126.5% in June 2023, showing an adequate level for all EU/EEA countries. At country level, all average ratios were above 100% (Figure 48). The ratio is more or less stable compared to June 2022, with a decline of 30 bps since then (Figure 48).

Figure 48: Net stable funding across EU/EEA countries (left) and net stable funding: distribution at bank level median, interquartile range, 5th and 95th percentiles (right)
Source: EBA supervisory reporting data



With a share of 48.2% retail deposits are the main component of banks' available stable funding (ASF). Liabilities with undetermined counterparty come in second place (13.9% of the total available stable funding), followed by capital (12.7%). Other financing, such as funding from non-financial and financial customers, represents 21.3% of banks' available stable funding. Regarding the denominator of the ratio, loans are the main component, representing 79.7% of the total required stable funding (Figure 49).

Figure 49: Components of the net stable funding ratio (RSF – left, ASF – right)
Source: EBA supervisory reporting data



In recent years, the accommodative monetary policy together with ample available central bank funding at attractive conditions have underpinned banks' ability to find stable sources of funding and comply with the NSFR in a rather easy way. The favourable effects for banks' funding from accommodative monetary policy are twofold: low yields and the possibility to use less liquid collateral in exchange for central bank funding.[61] Although the decline of the NSRF since June 2022 has not been significant so far, future monetary policy developments could translate into further declining NSFR levels going forward.

[61] See the ECB's press statement on temporary collateral easing measures from April 2020.

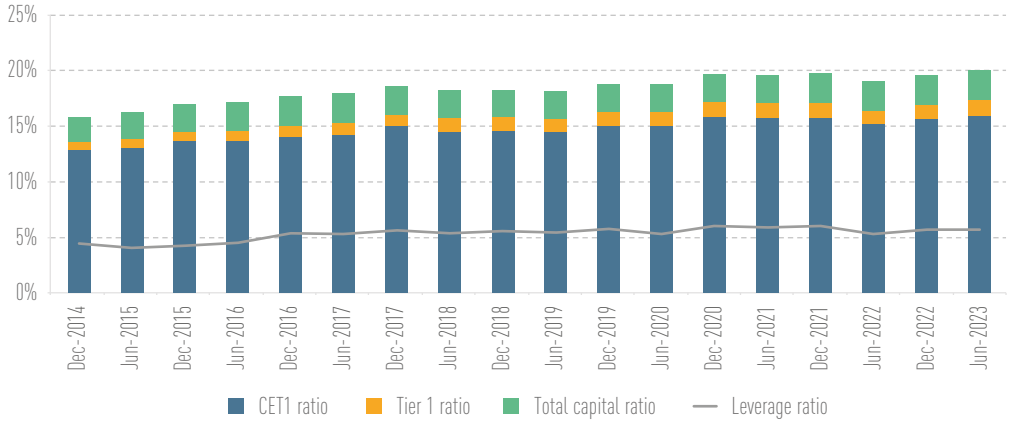
4. Capital

Banks continued to increase their capital positions and capital ratios reached new historic highs in June 2023. Strong profitability drove up retained earnings while sluggish loan growth kept increases of risk-weighted assets at bay. Even though the improved capital ratios were met by higher capital requirements, banks' headroom above requirements remained at comfortable levels.

Capital ratios reached new highs

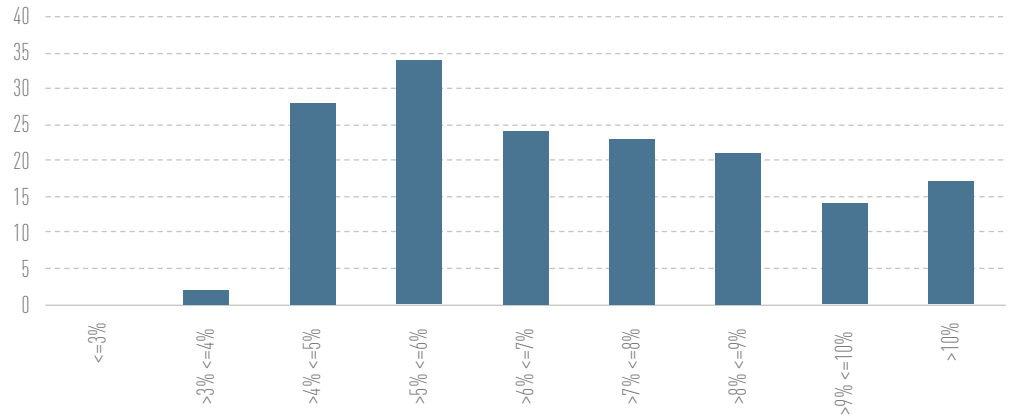
EU/EEA banks increased their capital ratios in the past year and reported new historic highs. The CET1 ratio improved by 76 bps and stood at 16.0% in June 2023 (15.2% in June 2022). In line with the CET1 trend, banks' total capital ratio increased to 20.0%, 95 bps above the June 2022 level. The AT1 component of the total capital ratio increased slightly by 14 bps to 1.4% and the Tier 2 component increased by 5 bps to 2.6% of RWA (Figure 50).

Figure 50: Capital ratios (transitional definitions)
Source: EBA supervisory reporting data



The leverage ratio has also increased by 40 bps and stood at 5.7% in June 2023. Most banks in the sample (82%) reported a ratio of at least 5% as of June 2023 and have a buffer of more than 200 bps above the minimum requirement of 3%. This share has increased by 8 p.p. in the last year (74% in June 2022). Another 17% of the banks in the sample reported a buffer of between 100 and 200 bps, while only 1% of the banks were within 100 bps of the minimum requirement (Figure 51). From January 2023, EU Global Systemically Important Banks (G-SIBs) have to hold a leverage ratio buffer in addition to the minimum requirement. This leverage ratio buffer is set at 50% of the CET1-based G-SIB buffer.

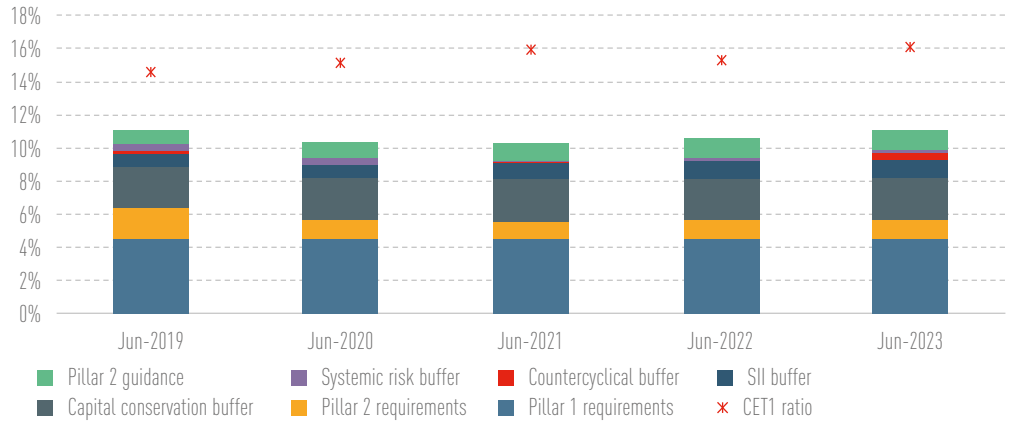
Figure 51: Leverage ratio buckets (number of banks)
Source: EBA supervisory reporting data



Countercyclical buffers push up overall capital requirements

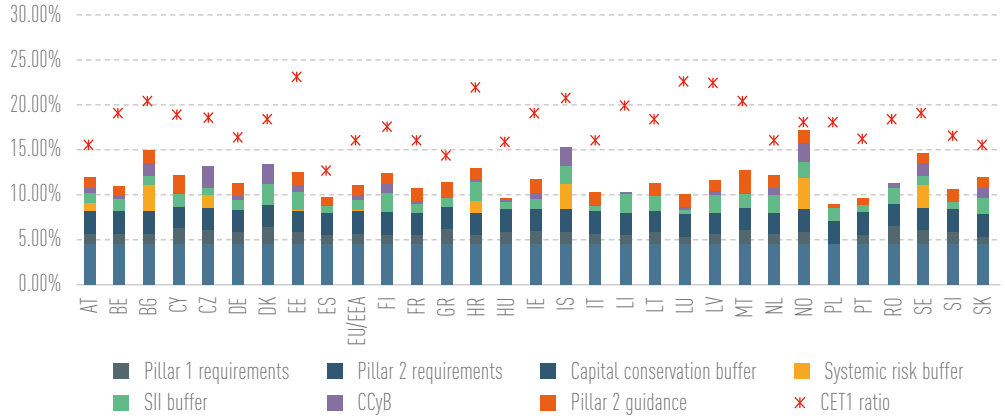
Banks' headroom over capital requirements and Pillar 2 guidance (P2G) increased by 29 bps in the last year and stood at 492 bps in June 2023, up from 464 bps in June 2022 (Figure 52). The increase was driven by improvements in the CET1 ratio (see above), which outpaced the increase in capital requirements. Overall Capital Requirements (OCR, which consist of Pillar 1, Pillar 2 and the combined buffer requirements) increased by 50 bps in the last year and stood at 9.9% of RWA in June 2023. P2G remained almost unchanged in the last year and stood at 1.19% of RWA in June 2023. The increase was driven by the countercyclical buffer, which increased by 44 bps to reach 0.5% of RWA in June 2023 (0.1% in June 2022). Various macroprudential authorities have set countercyclical buffer requirements since 2021, some of which have become applicable by June 2023 (these requirements usually apply after an implementation period of one year). Given that some authorities have announced new countercyclical buffers within the past year, the importance of this element within the OCR is expected to increase. Other requirements also increased slightly in the last year with the Other Systemically Important Institutions buffer up 3 bps to stand at 0.7% of RWA in June 2023 and Pillar 2 requirements up 2 bps to reach 1.1% of RWA.

Figure 52: CET1 requirements incl. Pillar 2 guidance
Source: EBA supervisory reporting data



Average capital requirements differ by country (Figure 53). The highest capital requirements are reported by banks in Norway (17.1%), followed by banks in Iceland (15.2%), Bulgaria (14.9%)and Sweden (14.5%). In those countries, authorities in charge of macroprudential policy make more extensive use of the capital buffer framework and set higher buffers for systemic and countercyclical risks. The lowest capital requirements can be observed in Poland (8.9%), Hungary (9.5%), Portugal (9.6%) and Spain (9.8%), mostly driven by the absence of sizeable macroprudential buffers.

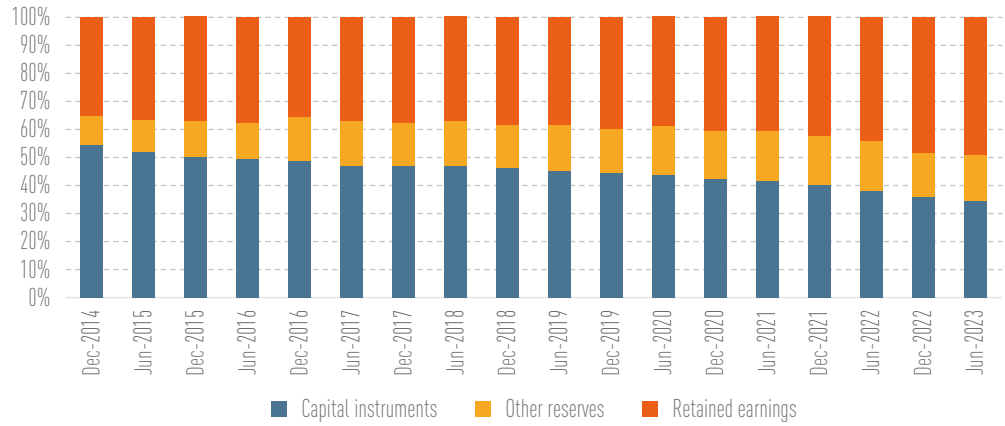
Figure 53: CET1 requirements incl. Pillar 2 guidance, by country
Source: EBA supervisory reporting data



Strong profitability boosted organic capital generation

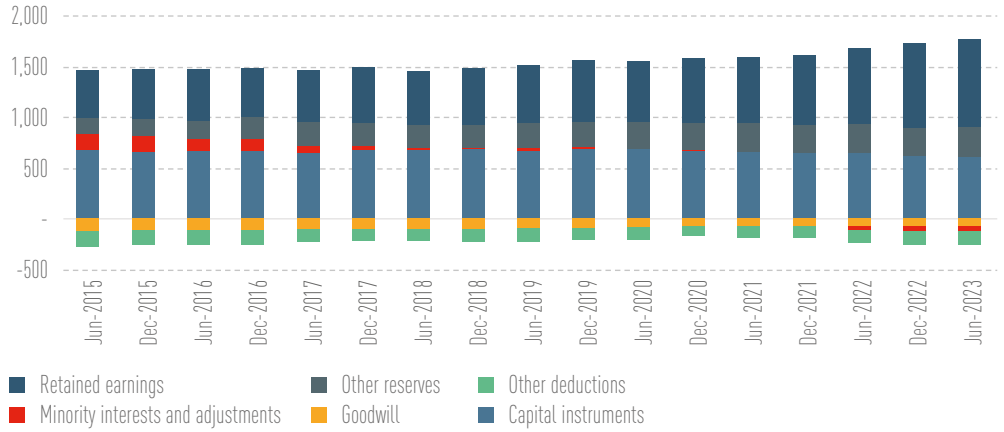
CET1 capital resources have increased by EUR 72bn or 5% in the last year and stood at EUR 1.5tn in June 2023. The increase was almost entirely driven by organic capital generation as solid profits in 2022 and the first half of 2023 have provided a boost to retained earnings (see Chapter 5). Retained earnings have increased by EUR 124bn or 57% in the last year but a decline in capital instruments (i.e. paid-in capital and share premiums) and higher deductions and adjustments led to an overall CET1 capital increase of EUR 72bn. The decline in capital instruments of EUR 33bn or 5% in the last year has picked up compared to previous years (e.g. -3% between June 2021 and June 2022), reflecting the impact of share buy-back programmes that many banks have put in place. As a result, the share of capital instruments has declined to 35% of the main sources of CET1 capital. Five years ago, this share was about 50% (Figure 54).

Figure 54: Share of main CET1 capital components (excluding deductions, minority interests and adjustments)
Source: EBA supervisory reporting data



Deductions from CET1 increased by EUR 20bn in the last year. While goodwill-related deductions decreased by EUR 1bn or 1% over this period, other deductions increased by EUR 21bn or 12%. Among these other deductions, accumulated other comprehensive income (AOCI) and transitional adjustments to CET1 capital were the most significant drivers of the year-on-year change at EUR 8bn and 11bn respectively. Voluntary deductions banks can make based on Article 3 CRR increased by EUR 2bn or 16% in the last year, following a steep 65% rise in the year before (Figure 55). Deductions based on AOCI reflect gains or losses that have yet to be realised (like valuations of financial instruments measured at fair value through OCI that are impacted by higher interest rates) and represent the biggest driver of deductions in absolute terms. Intangible assets and deferred tax assets are the other two major sources of deductions in absolute terms.

Figure 55: CET1 capital components (EUR bn)
Source: EBA supervisory reporting data



Box 6: The AT1 market after the Credit Suisse AT1 bonds write-down

Funding markets faced major volatility in the period following the events surrounding US banking sector turmoil and CS, in March this year. Spreads rose significantly, and primary markets were closed for several weeks (see also Chapter 3.1 on funding markets more generally). Following the purchase of CS by its domestic rival UBS and the write-down of CS's AT1 bonds, the AT1 market was particularly affected.

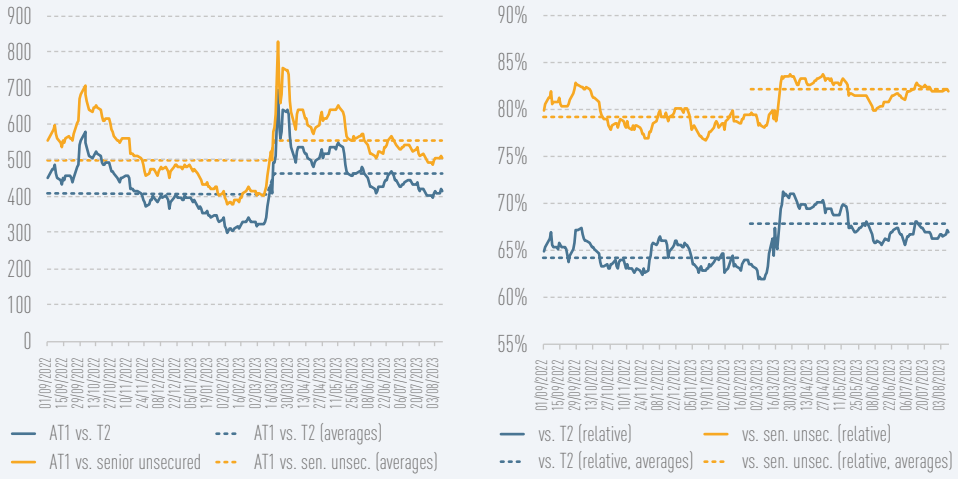
Despite the clarification on the status of AT1s provided by various regulators and other authorities, including the EBA, the SRB and the ECB, new AT1 issuances dried up for several months after the CS event. ([62]) The AT1 primary market, which had been quite active since the beginning of the year, suddenly came to a stop. Caixa Bank was the last European bank to successfully issue an AT1 in early March, while banks which had AT1 call dates in April or May decided not to exercise them. After being closed for more than three months, Bank of Cyprus and BBVA were the first issuers of AT1 debt in EUR in June 2023. Despite a slow revival of the AT1 market with an uptick of issuances in September, the volume of AT1 debt issued so far in 2023 is well below issuance trends for other debt classes.

Spreads started to widen across the board around 9 March 2023, following the resolution of SVB (see Figure 40 and Chapter 3 for more general spread trends during this period). AT1 spreads went up significantly on 20 March after the announcement of the CS takeover. Spreads soon declined from the peak levels across various debt instruments, but the AT1 market did not recover to the same extent as other market segments. EUR senior unsecured asset swap (ASW) spreads, for instance, were 4 bps or 3% wider on 31 August compared to 8 March (i.e. before the SVB-related event). AT1 spreads, by contrast, were still 120 bps or 23% wider on 31 August. This clearly shows that the AT1 market was most affected by the March events, in particular the CS-related write-down (Figure 56).([63])

([62]) See the SRB, EBA and ECB Banking Supervision statement on the announcement on 19 March 2023 by Swiss authorities from 20 March 2023.

([63]) This analysis considers a period of in sum 12 months, around six months before the events in March 2023 and around six months after the events.

Figure 56: ASW spread differentials of EUR-denominated bonds – AT1 vs. senior unsecured funding and vs. T2 funding, in absolute terms (bps; left), and in relative terms (spread differentials as a share of AT1 spreads); the average shows that of the period 1 September 2022 to mid-March 2023, and mid-March to end of August 2023)
Source: IHS Markit[64]



Comparing differentials between debt instruments, one can also see major moves of AT1 spreads vs. senior unsecured and T2 spreads. The average spread differential for AT1 to senior unsecured bonds widened from around 504 bps to around 565 bps, and for spread differentials to T2s from around 409 bps to 466 bps, following the March events.

Spread differentials widened and have not yet recovered to levels before the respective events, confirming the view that AT1 markets are considered riskier than other funding markets. The CS event has highlighted the write-down characteristic of AT1 bonds and has raised questions about the ability of AT1s to absorb losses in a bank on a going-concern basis. Now more than ever, investors consider AT1s riskier than other bank funding sources and demand a higher return.

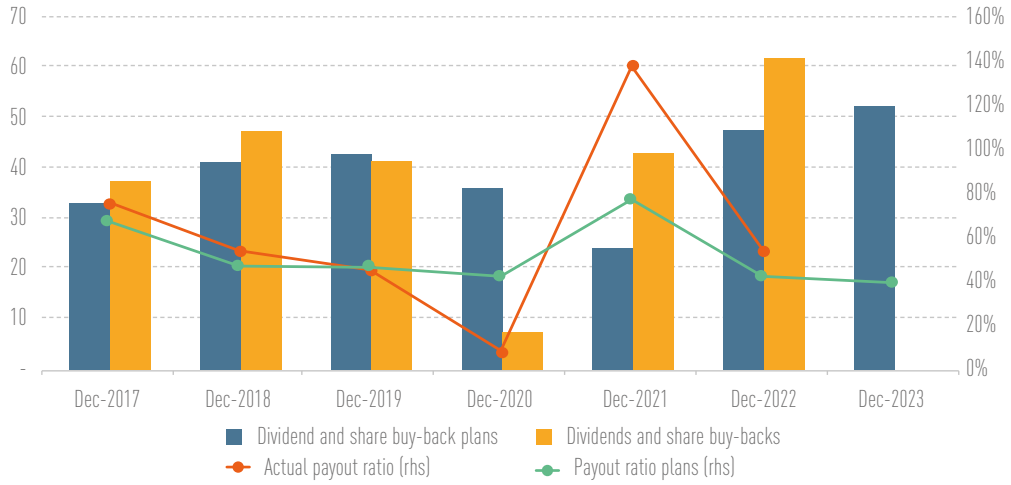
[64] This analysis considers a period of in sum 12 months, around six months before the events in March 2023 and around six months after the events.

Strong profitability also supported shareholder remuneration

Dividend payments and share buy-backs reached record highs in 2022 (Figure 57). EU/EEA banks distributed almost EUR 63bn to shareholders, significantly more than the EUR 48bn banks planned for at the beginning of 2022. The increase was due to higher-than-expected profits, which allowed banks to make extraordinary payouts while retaining enough earnings to increase their capital position. The payout ratio (dividends and share buy-backs) in 2022 reached 56% of year-end 2021 profits. This compares with a three-year average payout ratio of 50% (calculated as payouts in 2020–2022 divided by year-end profits for 2019 – 2021). Dividend payouts increased by 31% and reached EUR 50bn in 2022 (EUR 38bn in 2021). Payouts in 2021, however, were still partly impacted by restrictions on shareholder remuneration put in place after the outbreak of the COVID-19 pandemic. Hence, 2022 payouts likely included some "deferred" dividend payments from the years 2020 and 2021. Net share buy-backs in 2022 surged by 128%, reaching EUR 13bn in 2022 (EUR 6bn in 2021). For the year 2023, banks plan to distribute EUR 53bn to shareholders, 10% higher than the payout plans for 2022. Given the record profits made in 2022 and continued profitability in the first half of 2023, actual payouts in 2023 might eclipse the plans made at the beginning of the year (see Chapter 5 on profitability).[65]

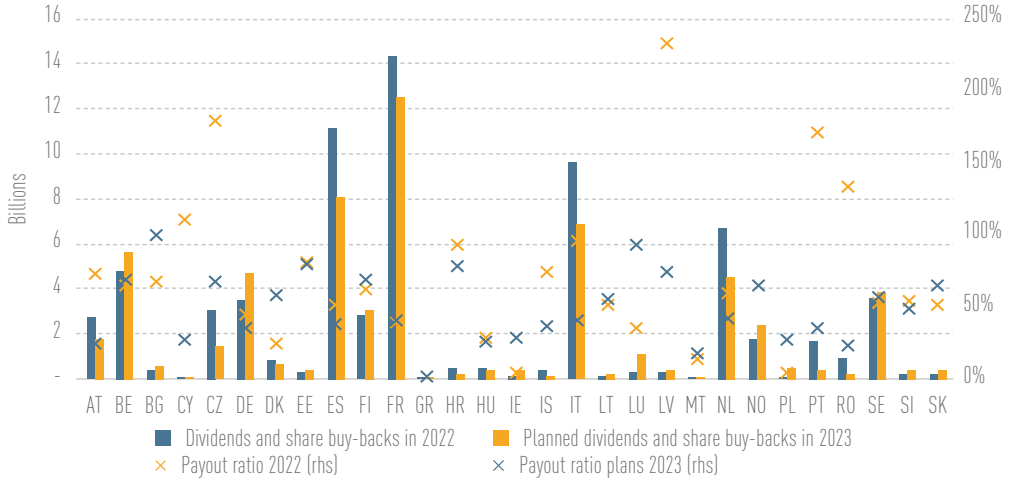
[65] For the calculation of the payout ratio earnings (denominator) are assumed for e.g. the end of year 2021, and dividend and other payments (numerator) for end of year 2022. For the calculation FINREP and COREP data is used. Whereas this approach fits well in cases of yearly dividend payments, it does not provide correct numbers in the comparatively rare cases of interim dividends or in cases where the sample of banks has materially changed.

Figure 57: Dividends and share buy-backs (in EUR bn, lhs) and payout ratio (rhs)
Source: EBA supervisory reporting data



Payout ratios in 2022 ranged from close to 0% reported by banks in Greece to 233% by banks in Latvia (Figure 58). Banks in the Czech Republic (178%), Portugal (171%), Romania (132%) and Cyprus (110%) also reported dividend payments and share buy-backs of above 100% of 2021 profits. One reason for elevated payout ratios are in some cases extraordinary dividend payments of respective banks to their foreign holding companies. Banks that reported high payout ratios in 2022 plan to pay significantly less in 2023. On the other hand, banks that paid out below average in 2022 plan for higher payouts in 2023.

Figure 58: Dividends and share buy-backs (in EUR bn, lhs) and payout ratio (rhs), by country
Source: EBA supervisory reporting data [66]

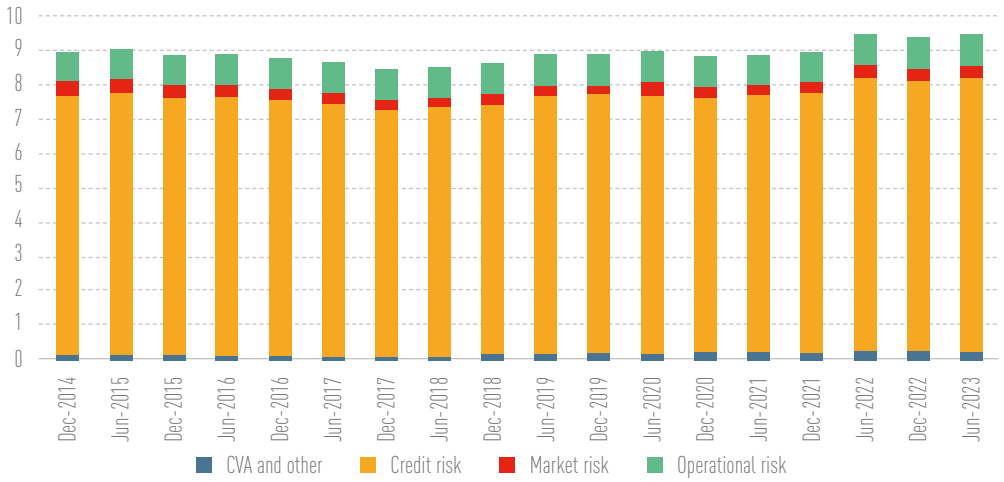


Risk-weighted assets decline amid stable lending volumes and lower market risk

Risk-weighted assets (RWA) decreased by -0.1% in the last year and stood at EUR 9.5tn in June 2023 (Figure 59). The slight decrease was mainly due to decreasing market risk (-6% in the last year) and credit valuation adjustment and other risks (-12%), reflecting the improved market conditions. The combined effect resulted in EUR 58bn being taken off banks' total RWA. Despite the heightened macroeconomic uncertainty, credit risk growth was limited to 0.4% of total RWA in the last year amid stable lending volumes. Operational risk increased by 2.3% over the last year. Credit risk remains the largest risk for banks, accounting for 84% of total RWA, followed by operational risk (10%), market risk (4%) and credit valuation adjustment (CVA) and other risks (3%).

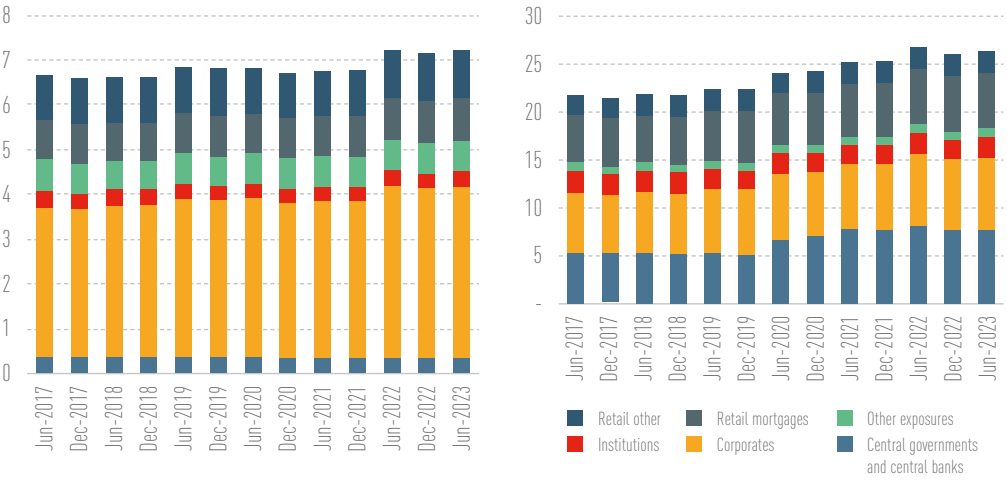
[66] The payout ratio may be affected when banks enter or exit the market - as in the case of Cyprus - and where there are interim dividends – vey common in Spain.

Figure 59: RWA by type of risk (EUR tn)
Source: EBA supervisory reporting data



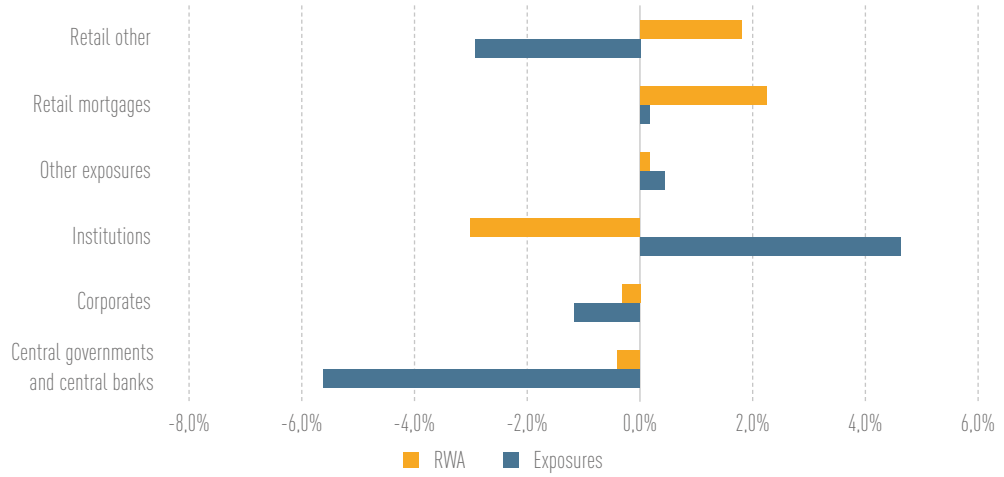
Comparing credit risk RWA movements with trends in underlying credit exposures confirms the decrease in credit risk exposures and reveals slight changes in banks' risk profile (see Chapter 2.1 on asset volume developments). Total credit risk exposures decreased by EUR 502bn or 1.9% over the last year. Exposures to central governments and central banks were the main driver behind the overall trend with a EUR 463bn or 5.6% decline since June 2022. Exposures to corporates decreased by EUR 87bn or 1.2% in the same period. Retail mortgages, on the other hand, increased by EUR 11bn or 0.2% in the last year and exposures to institutions increased by EUR 100bn or 4.6% (Figure 60).

Figure 60: Credit RWA (left) and exposures (right) for selected exposures classes, excluding e.g. securitisation and equity (EUR tn)
Source: EBA supervisory reporting data



Diverging trends for RWA vis-à-vis exposure values indicate a change in risk profile for several exposure classes in the last year (Figure 61). Focussing on corporates and retail exposures, the biggest exposure classes, a trend towards higher risk can be observed. For corporate exposures, the RWA decline of -0.3% was well below the -1.2% decrease of the underlying exposure value, resulting in a higher average risk weight for the remaining stock of corporate exposures. For retail mortgage exposures, the RWA increase of 2.2% far outpaced the 0.2% increase of the exposure value. Other retail exposures (e.g. revolving credit like credit cards or personal lines of credit) saw the most significant change in risk, with the RWA increase of 1.8% standing in stark contrast to the -2.9% decline in underlying exposure value. As a result, the average risk weight density for banks' total credit risk portfolio rose by 57 bps to 27.4% in June 2023 (26.8% in June 2022), mainly driven by other retail exposures (up 224 bps to 48.5%) and corporate exposures (up 43 bps to 51.4%).

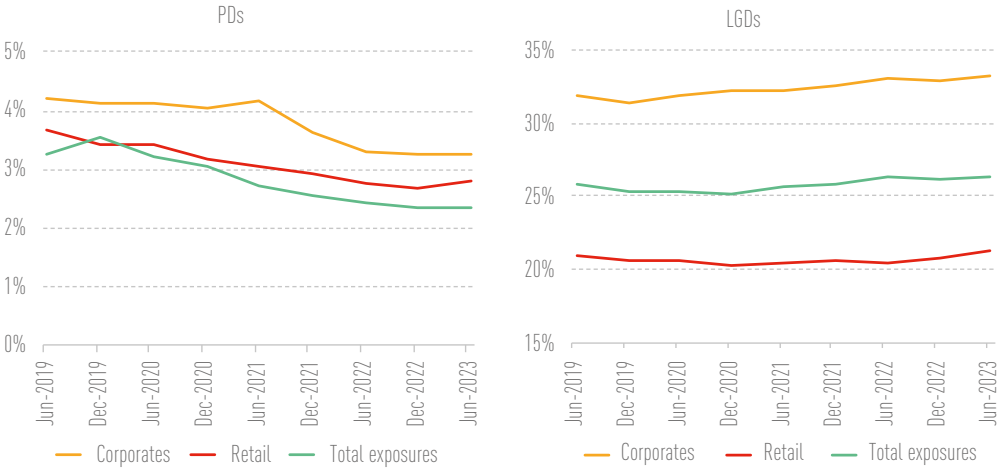
Figure 61: Year-on-year changes in credit risk RWA and exposures for selected exposures classes
Source: EBA supervisory reporting data



Internal ratings based (IRB) risk parameters react to asset quality deterioration

Parameters for banks' internal credit risk models confirm the change in banks' credit risk profile, in line with the above RWA analysis for retail exposures (Figure 62). The average loss given default (LGD) for banks' retail portfolio increased by 70 bps, bringing the level to 21.2% in June 2023. The LGD for the corporate portfolio rose by 11 bps to 33.2%. The trend for the average probability of default (PD) was more mixed. The PD for retail exposures increased by 3 bps to 2.8% in June 2023. The PD for the corporate portfolio, on the other hand, continued to decline and stood at 3.2% (-8 bps) in June 2023.

Figure 62: IRB parameters PD (left) and LGD (right) for selected exposures classes
Source: EBA supervisory reporting data



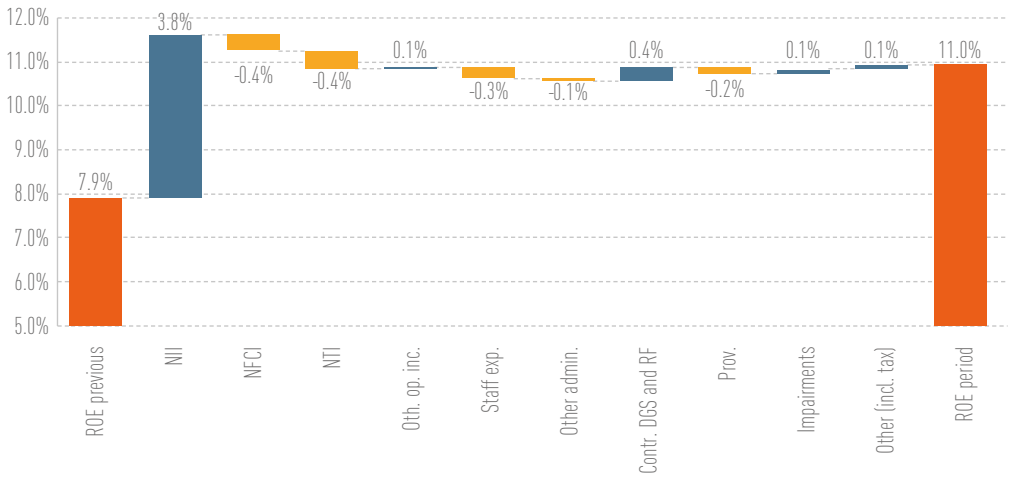
5. Profitability

EU/EEA banks' profitability rose substantially, driven by a large rise of NII. The NII increase was supported mainly by a widening NIM rather than loan growth. On the back of central banks' monetary policy tightening, banks were able to leverage on the increasing interest rates to increase their NII. Although this has been broadly based, some banks benefited more depending on their business model or their asset and liability structure. Going forward, profitability growth could slow down amid emerging trends of repricing of the liability side faster than the asset side. Low asset growth could dampen fees generated, stickier inflationary pressures might weigh on costs and impairments might suffer from a deterioration in asset quality.

Profitability position of the EU/EEA banking sector

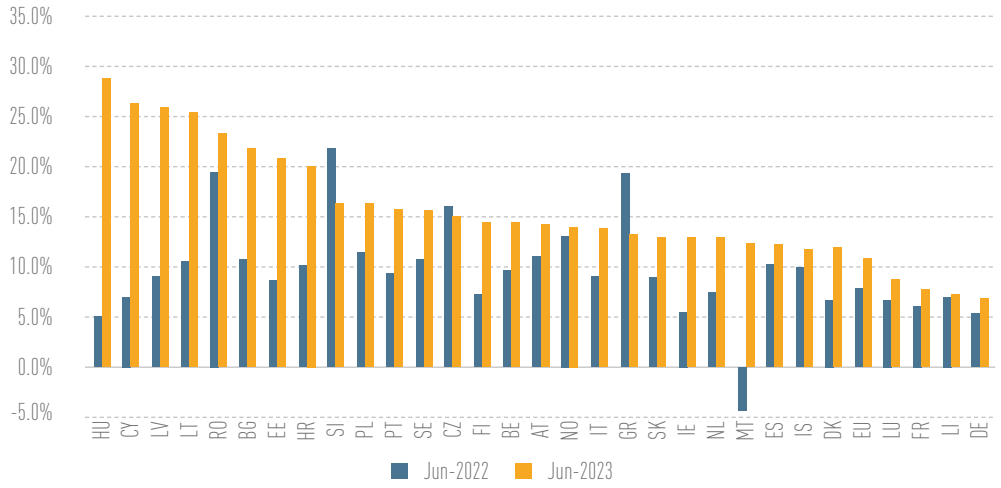
The RoE of EU/EEA banks reached 11% in June 2023, the highest RoE since the EBA started collecting banks' data. This compares to 7.9% a year earlier. Such a material increase is almost entirely attributable to higher NII – its contribution to the return on equity increased by 376 basis points compared to the previous year. In contrast, net fee and commission income (NFCI) and net trading income (NTI) had negative contributions (37 and 44 respectively). Despite the strong inflationary pressures in the economy, banks managed to limit the increase in their staff expenses (negative contribution of 27 bps). While provisioning costs have negatively affected profitability, impairment releases have partly offset this (Figure 63).

Figure 63: Contribution to the RoE of the main P&L items, comparison between June 2022 and June 2023; calculated as a ratio to total equity
Source: EBA supervisory reporting data



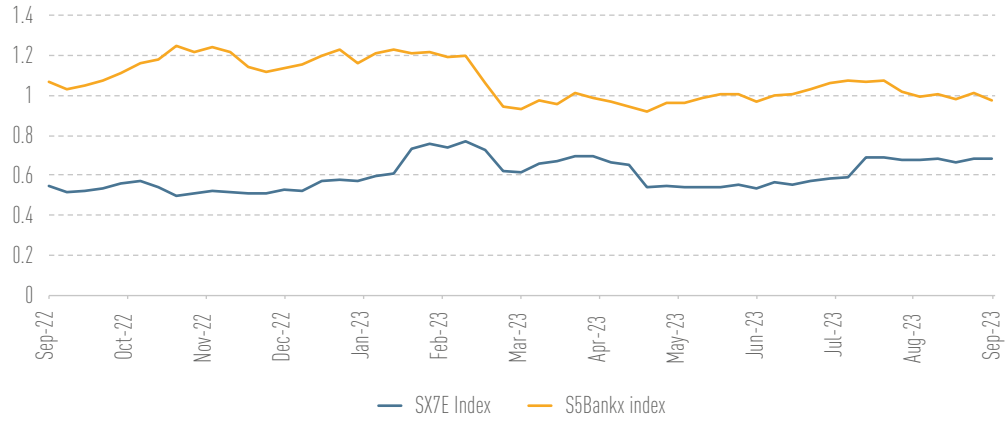
Although the improvement in profitability has been broad-based, there have been material differences across jurisdictions. Several central and eastern European countries reported an average RoE of more than 20%. Hungarian and Cypriot banks not only reported the highest levels of RoE, as of June 2023, but they have also reported the largest incremental increases in the indicator compared to June 2022. This could be attributed to the combination of a large share of variable rates for loans to HHs and NFCs and a large reliance of their funding on deposits, but also banks' idiosyncratic effects not least related to developments in their subsidiaries in countries that might be affected by extraordinary developments, such as a war or other similar events. Conversely, banks in large jurisdictions, such as France and Germany, performed worse, not least owing to the slower repricing of the asset side due to a high share of fixed-rate loans (Figure 64).

Figure 64: Annualised return on equity by country
Source: EBA supervisory reporting data



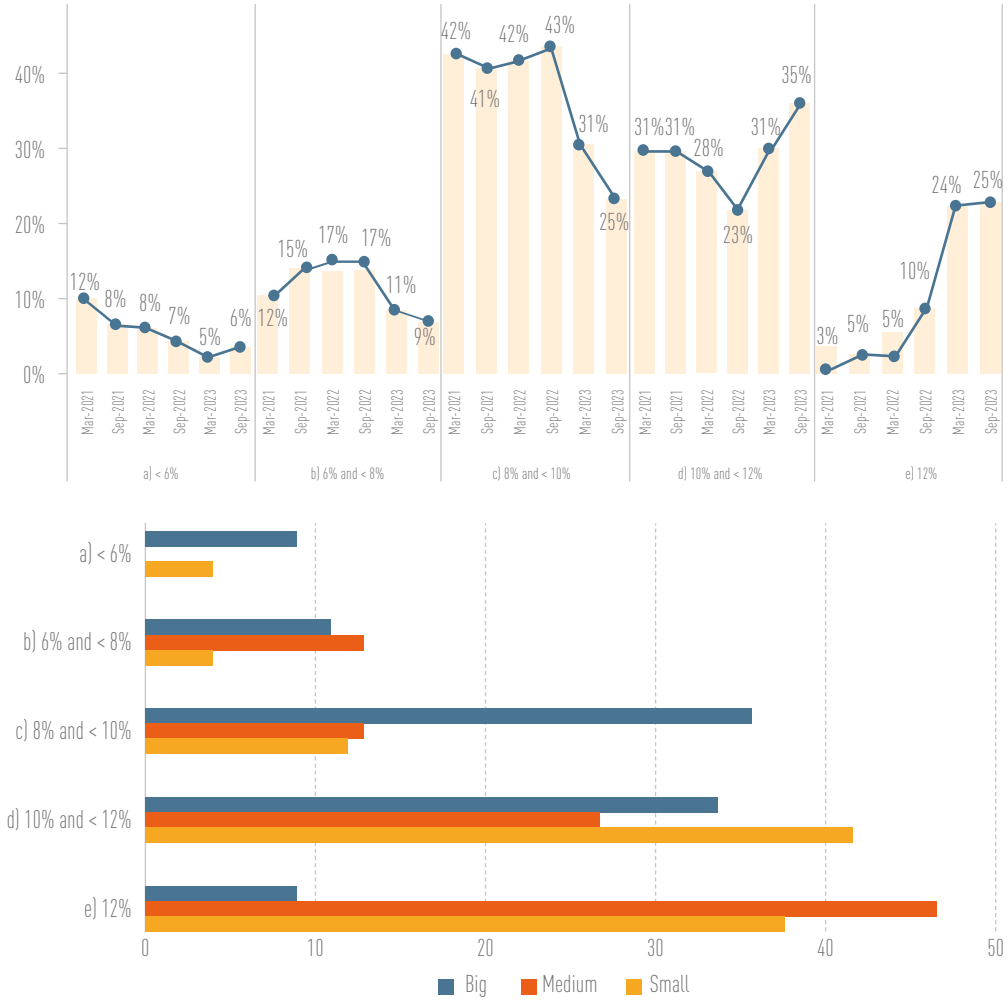
Return on (average) assets (RoA) also increased substantially from June 2022 to June 2023, from 0.49% to 0.70%. The increase in this indicator is even more pronounced compared to the RoE, as the total assets decreased marginally over the period, while equity of the banks increased. The improvement in profitability and related profitability expectations have also contributed to an increase in the average price to book (PtB) ratio of the Euro Stoxx Banks index, nearly reaching 0.8. However, it remains firmly anchored below 1 and lower than, for instance, that of their US peers (Figure 65).

Figure 65: Variation of PtB ratio of SX7E and S5Bankx indices from September 2022 to September 2023
Source: Bloomberg



The improvement in profitability indicators has helped EU banks to close the gap between their return and cost of equity (CoE). Yet, RAQ results show that the majority of banks still report a lower RoE than their CoE. According to RAQ results, 40% of banks estimate their CoE below 10%, and 35% between 10% and 12%. Larger banks tend to report a lower CoE than small and medium-sized banks, the majority of which report a CoE higher than 12% (Figure 66).

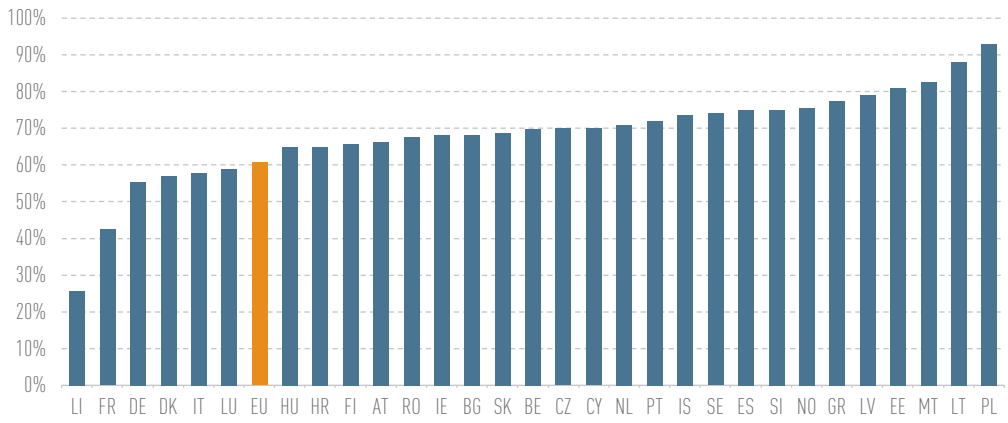
Figure 66: Estimated cost of equity variation (top) and by bank size, autumn 2023 (bottom)
Source: EBA Risk Assessment Questionnaire



NII increase is led by a strong uptick of NIM

EU/EEA banks' net operating income (NOI) rose by 14.8% in the 12 months from June 2022 to June 2023 amid an increase in NII of more than 20%. At the same time, NFCI marginally increased by 1%, while NTI decreased by 11%. At EU/EEA level, NII accounts for 61% of NOI, yet this is widely diversified with Polish banks reporting 93% and banks in Liechtenstein just 26%. Germany and France have a below-average contribution of NII with 56% and 43% (Figure 67).

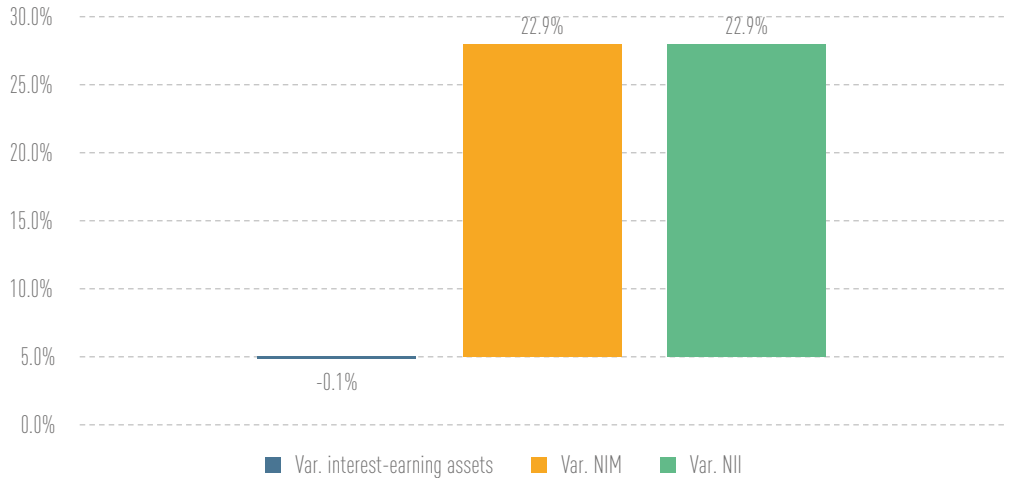
Figure 67: NII as % of NOI
Source: EBA supervisory reporting data



The increase in NII was driven by widening margins. These were kept for a long period at historically narrow levels, also because of the low/negative interest rate environment. EU/EEA banks have been able to widen their margins as they have been able to reprice their asset side faster than their liability side.

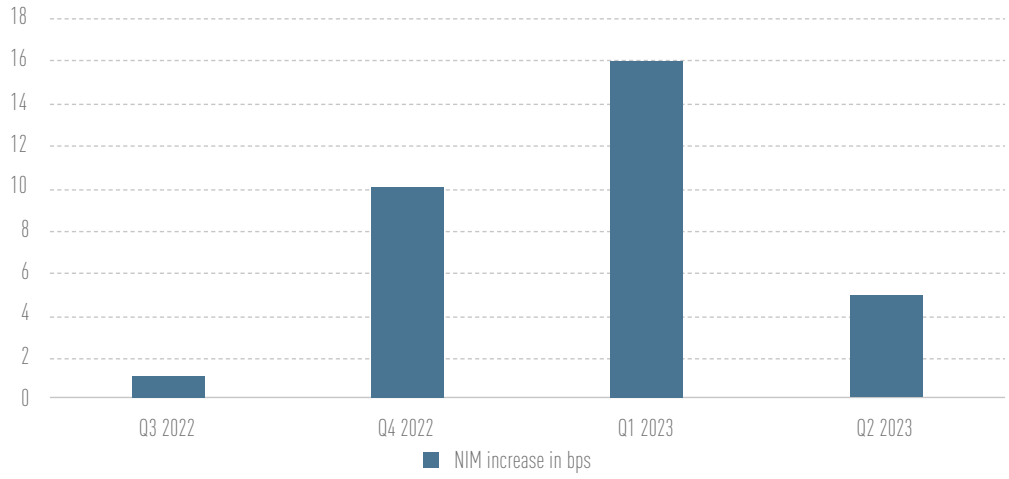
On the other hand, the interest-earning assets contribution was muted over the period, not only due to macroeconomic headwinds that affected loan growth, but also because of borrowers' incentive to repay early their variable rate loans (Figure 68).

Figure 68: Contribution to NII (June 2022 to June 2023).
Source: EBA Supervisory reporting data



Going forward, the widening in NIMs might slow down as repricing of the liability side "catches up" the asset side. Although NII has increased rapidly in the last quarters, slower economic growth which has also affected new loan generation, may affect the NII growth going forward. An increasing share of banks expect to slow down their loan growth amid elevated macroeconomic uncertainty (see Chapter 2.1), which would accordingly negatively affect the pace of NII growth (see more details in the section below). There have already been some signs of this during the second quarter of 2023 as NIM widening pace slowed down notably compared to previous two quarters (Figure 69).

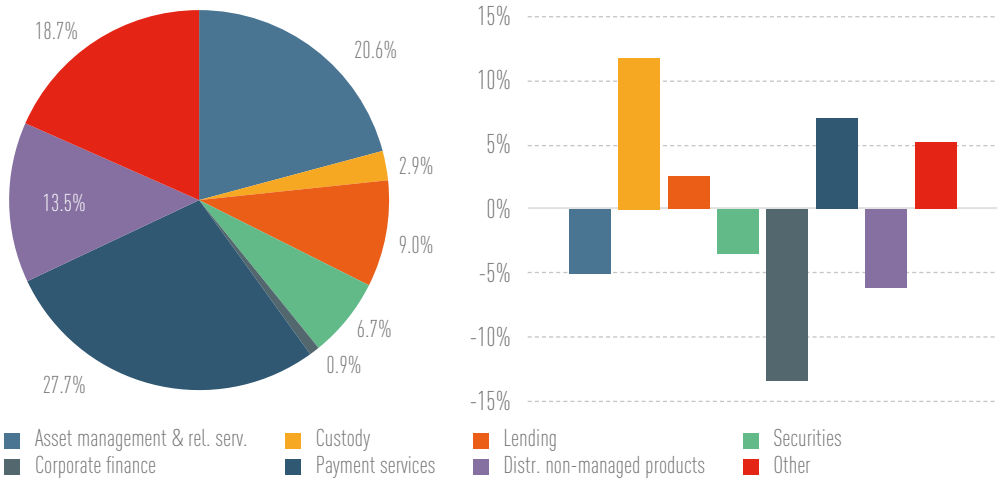
Figure 69: Quarterly percentage point change in net interest margin in the last quarters
Source: EBA Supervisory reporting data



NFCI and NTI contributions to NOI are decreasing

NFCI is the second most relevant revenue item, accounting for 27.6% of NOI, compared with 31.3% a year ago. The higher ratio than average of NFCI to NOI in some countries can be attributable to the presence of large investment banks, such as in France with 36% or Germany with 29%. Conversely, some countries have a low ratio of NFCI to NOI, such as Malta or Norway with 13% and 14%. While the ratio of NFCI to NOI had a significant decrease mainly due to the strong uptick of NII, the absolute amount of NFCI decreased slightly from June 2022 to June 2023 (-0.8%). Half of the fee items are increasing, with a strong uptake of custody (12%), and increases in payment services and lending, (7% and 2%), as well as the remaining fee income category with an increase of 2%, all other fees are decreasing. The decrease of 5% in asset management and related services and of 6% in distribution of non-managed products, which represent respectively 20.8% and 13.6% of NFCI, weighed heavily on the total variation (Figure 70).

Figure 70: Breakdown of fee and commission income (June 2023) and variation of its main components (June 2022 – June 2023)
Source: EBA supervisory reporting data



The NFCI to NOI ratio has now reached the lowest since June 2017, quite the opposite to the magnitude it reached under the formerly prevailing low-rate environment. In a context of subdued economic growth and high interest rates, fees and commissions associated with the generation of new loans are expected to decrease further. In addition, market volatility and the rate environment might have a negative impact on asset management fees.

NTI accounts for ca. 7% of EU/EEA banks' NOI as of June 2023. It remains a volatile element of the NOI with also great variability between countries. Countries with banks conducting large market activities such as France or Germany have a high NTI to NOI ratio (respectively 17%, and 13% for both), while other countries have zero contribution of NTI, such as Greece or Portugal, or even negative contributions in the case of Hungary and Bulgaria (both -0.03%).

EU/EEA banks contained their operating costs

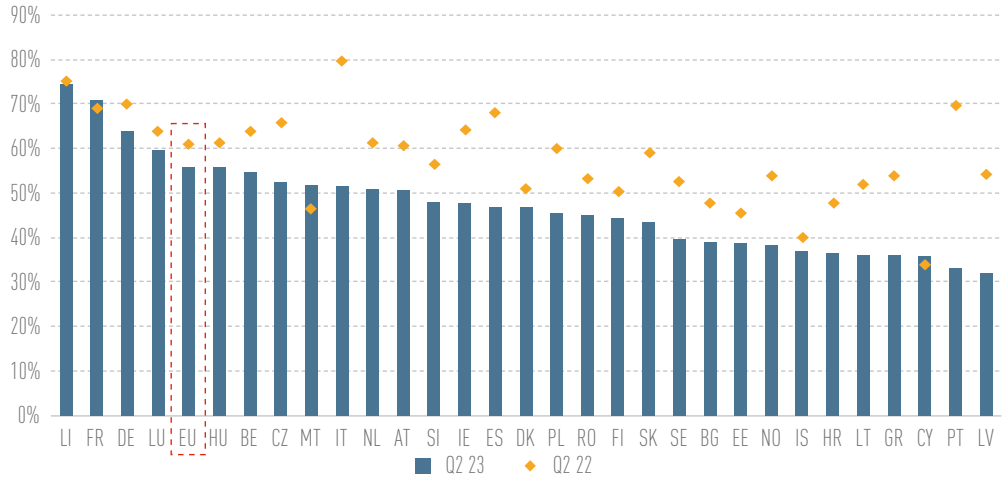
Despite the strong inflationary pressures of the previous quarters, characterised by rising core inflation and stronger second-round effects on the service sector and on wages, EU/EEA banks' cost increase was less than inflation in the period between June 2022 and June 2023. In absolute terms, staff and other administrative expenses increased by 4.9% over the period, mainly driven by increasing staff expense of 5.6% year on year.[67] The increase is, however, less pronounced when considering also contributions to deposit guarantee schemes (DGSs) and resolution funds (RFs) as well as depreciation, limiting the total cost increase to 2.8%.

As a result of the strong increase in income and the comparatively lower increase in costs, the average cost-to-income ratio (CIR) continued to decline, from 61% to 56%,

[67] As of June 2023, annual inflation in the EU was 6.4% (see Eurostat – June inflation data, from 19 July 2023).

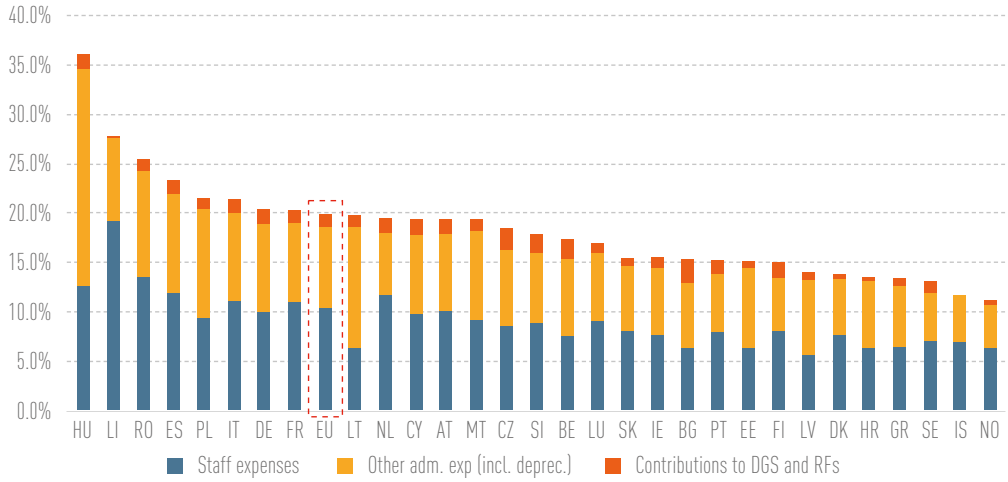
the lowest level since EBA started reporting the indicator at the end of 2014. Looking at country level, some of the countries with the largest banking sector, such as France and Germany, have a high CIR, respectively 71% and 64%, while some of the lowest CIRs are to be found in Latvia and Portugal, both below 35% (Figure 71).

Figure 71: CIR by country (June 2023)
Source: EBA supervisory reporting data



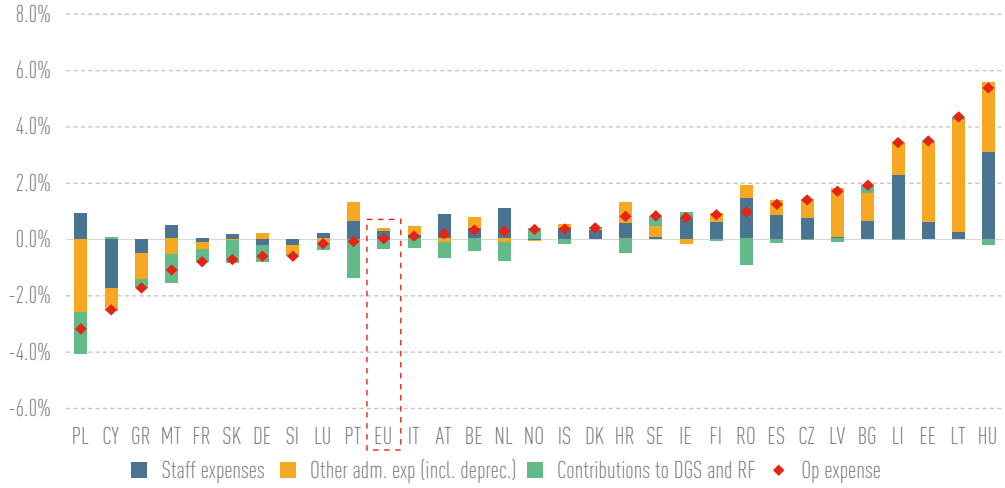
Operating expenses accounted for 19.9% of total equity as of June 2023 (20% in June 2022), with approximately half (10.5%) registered as staff expenses, 8.1% as other administrative expenses and 1.4% as contributions to DGSs and RFs. Looking at regions, total operating expenses tend to be lower in Nordic and Baltic countries; this can presumably be attributed to the high share of corporate and household customers that are comfortable with online and digital banking (Figure 72)

Figure 72: Operating expenses as % of equity by country (June 2023)
Source: EBA supervisory reporting data



Operating expenses as a percentage of equity have remained stable over the past year, with a decrease in expenses related to DGSs and RFs by -0.4%, a contained increase in staff expense of 0.3% and a limited increase of 0.1% in other administrative expenses. On a country basis, 10 out of 30 countries have seen their operating expenses compared to equity decrease in a context of strong inflationary pressures. Only a few countries managed to reduce staff expenses while a majority have decreasing expenses on DGSs and RFs (Figure 73).

Figure 73: Year-on-year variation and breakdown of operating expenses as % of equity by country (June 2023)
Source: EBA supervisory reporting data



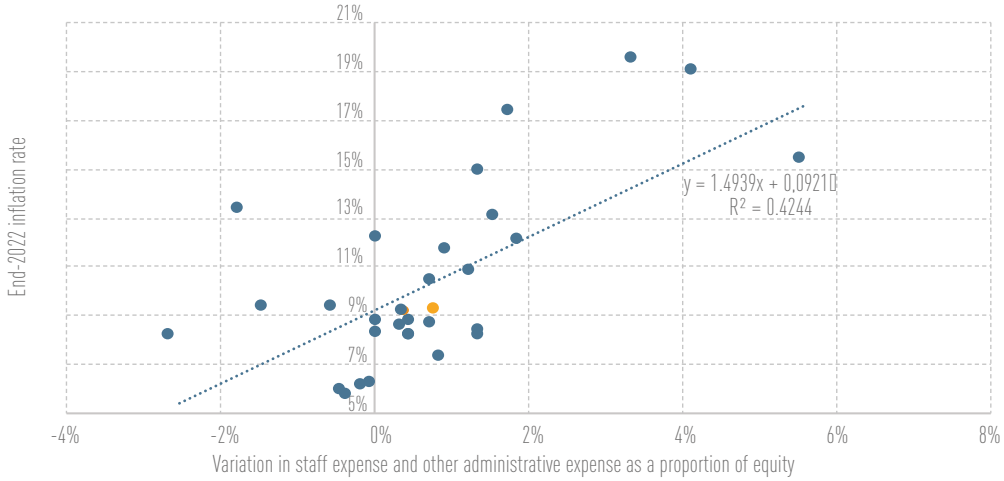
Depending on the business model of banks, operating expenses represent a different share of equity. In this regard, cross-border universal banks, which are mainly the largest banks, have on average higher costs than other banks. On the other hand, local universal banks, i.e. banks with a similar business model but located within the borders of one country, have lower cost of around 300 bps than cross-border universal banks. The smallest share of operating expenses as a percentage of equity is reported by corporate-oriented banks, which are able to maintain their operating expenses at less than half compared to other business models, and even less than one-third compared to cross-border universal banks (Figure 74).

Figure 74: Operating expenses as % of equity by business model (June 2023)([68])
Source: EBA supervisory reporting data

([68]) For the purpose of the business-model-based analysis of banks' profitability, banks were classified into the following five categories: consumer/auto (focused on originating and servicing consumer loans to retail clients); corporate-oriented (institutions specialised in financing domestic and international trade); cross-border universal (institutions engaged in several banking activities including retail, corporate and capital market operations, with major cross-border operations); local universal (institutions engaged in several banking activities including retail, corporate and capital market operations but operating predominantly in their domestic market); public (institutions financing public sector projects or providing promotional credit or municipal loans). In the figure, "Local universal" also includes the following business models: local cooperative and savings. "Other" includes the following business models: custodian, mortgage and private.

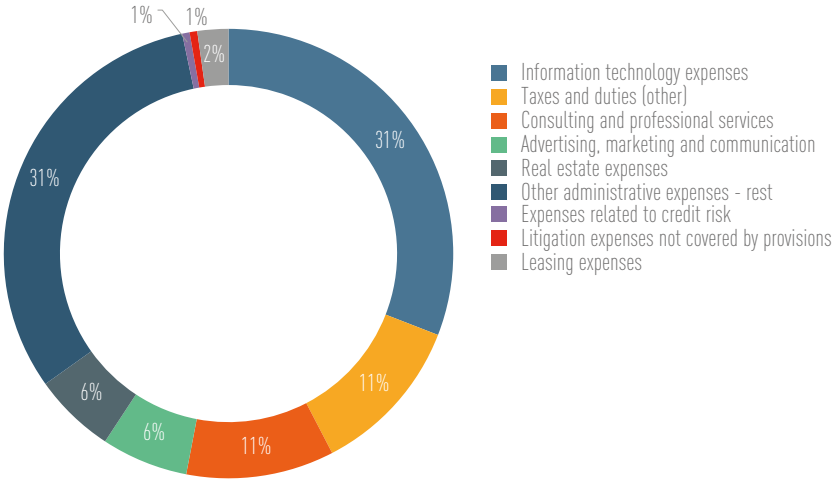
The increase in operating expenses is largely attributable to inflationary pressures that have affected banks' cost base. A clear correlation between inflation and variation in staff expense and other administrative expense as a proportion of equity can be drawn. It is apparent that banks located in countries most affected by inflation had to increase their cost-reduction efforts if they wanted to limit their cost base increase (Figure 75).

Figure 75: Correlation of end-2022 inflation rate and June 2022 to June 2023 change in staff expense and other administrative expense as a proportion of equity
Source: Eurostat, EBA supervisory reporting data



Information technology (IT) costs are the most significant part of other administrative expenses, accounting for 31%, which is similar to last year (30% as of June 2022).([69]) Taxes and duties as well as consulting represent 11% of the other administrative costs, while advertising, marketing and communications as well as real estate expenses amount to 6% each (Figure 76).

Figure 76: Breakdown of share of other administrative expenses as of June 2023
Source: EBA supervisory reporting data

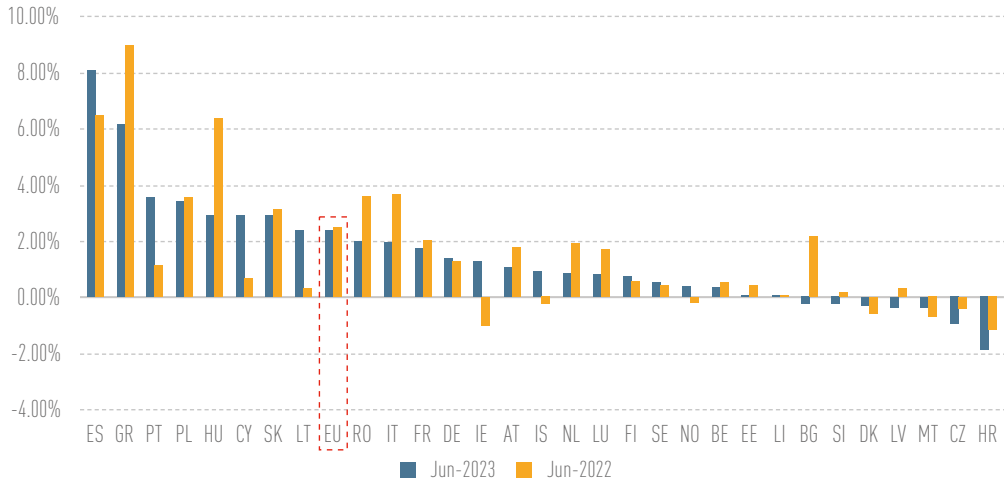


([69]) On last year's share of IT expenses see the EBA's Risk Assessment of the European Banking System from December 2022.

Impairments remain unaffected by deteriorating macroeconomic outlook

Impairment charges, i.e. charges for loan loss provisions, decreased by 2% from June 2022 to June 2023. The CoR of EU/EEA banks stayed stable during the same period at 0.45% (see Chapter 2.2). Impairment charges as a percentage of equity decreased by 13 bps to 2.37% for the EU average, with Spain and Greece registering particularly high rates above 6% while some countries such as Croatia, the Czech Republic or Malta have negative impairment charges compared to equity. Provisions (other than those related to credit impairments) increased to 0.4% of equity in June 2023, from 0.3% as of June 2022 (Figure 77).

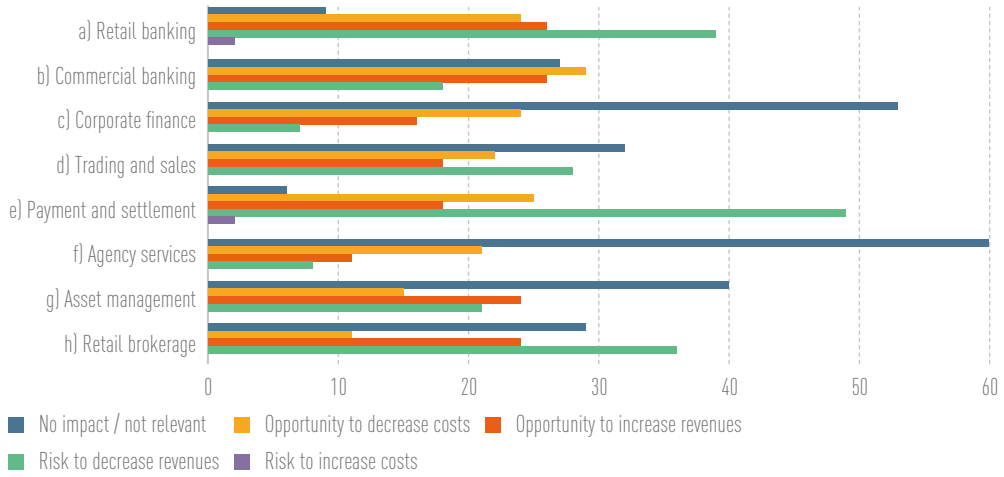
Figure 77: Impairments as % of total equity by country, June 2022 and June 2023
Source: EBA supervisory reporting data



Fintech and BigTech disruption challenges banking sector revenues while creating opportunities

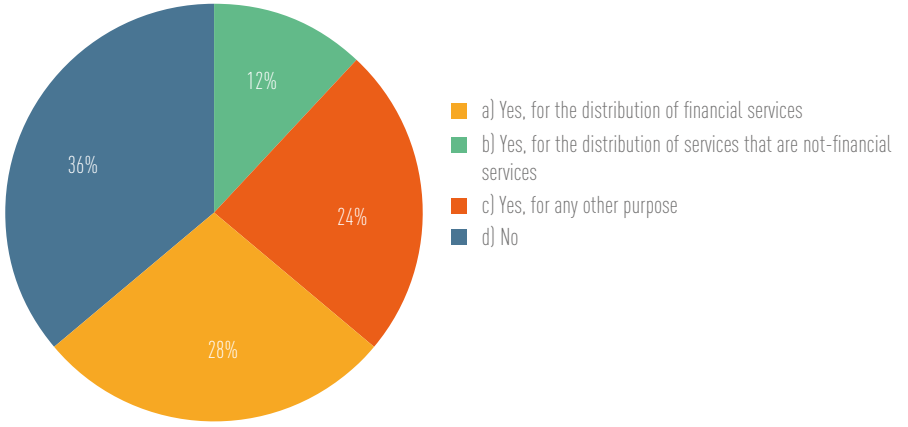
Competition from new entrants using financial technology (fintechs) and so-called BigTech companies (i.e. the biggest technology companies) has intensified over the last years for the incumbent players. Such competitive forces are mostly evident in payment, retail banking and retail brokerage, RAQ results show. In these business lines incumbent banks see an elevated risk of a negative revenue impact. Such risk is not material for corporate banking services (including corporate finance) and other wholesale services such as trading and sales or asset management. So far, for these services, banks do not see any material impact from fintech disruption. Nevertheless, the presence of these firms and the highly competitive landscape are a strong driver for increased technology adoption by incumbents to achieve greater efficiencies, including more agile and low-cost services. An increasing proportion of banks perceive the competitive forces from fintech companies as an opportunity to either increase revenues in the traditional banking services such as retail and corporate banking or lower their costs in the area of payment and services (Figure 78).

Figure 78: Banks' expectations of how fintech will affect their business lines
Source: EBA Risk Assessment Questionnaire



To take advantage of the arising opportunities for the sector, banks either develop internally the expertise to support new service channels or enter into partnerships with technology companies. Around 10% of the banks asked in the RAQ suggested they may consider a merger or acquisition (M&A) of a fintech company. In addition, around two-thirds of the respondents suggested that they have entered or intend to enter into a partnership with a large technology company for the distribution of financial or non-financial services or any other purpose. The use of such partnerships or intention to enter into an M&A transaction is particularly important for bigger banks, while smaller institutions seem less likely to make use of these partnerships (Figure 79).

Figure 79: Banks that have entered or intend to enter within the next two years into a partnership with a large technology company whose primary activity is the provision of digital services
Source: EBA Risk Assessment Questionnaire

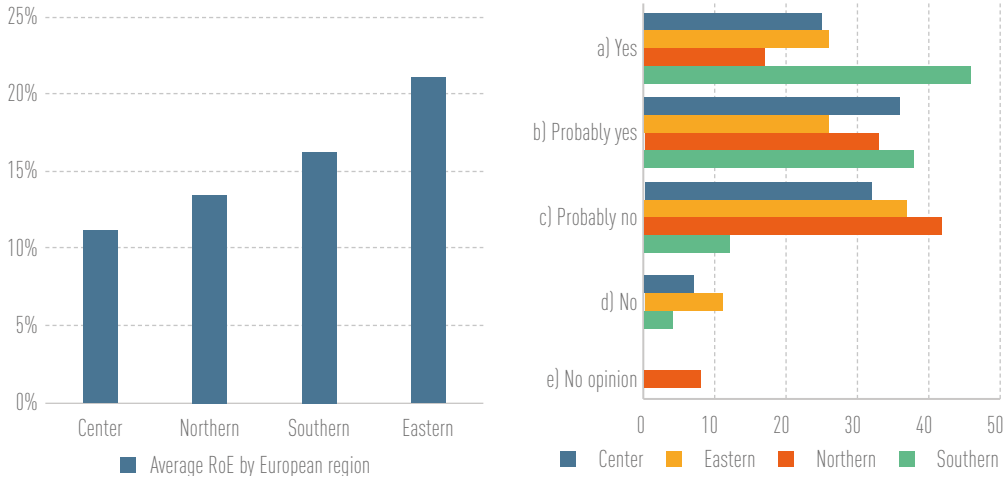


Profitability varies greatly within the EU/EEA banking sector

While the European banking sector finds itself in a good overall position with its profitability, there are major differences across Europe. The first difference comes from the location, with euro area countries displaying on average a lower profitability than non-euro area countries (simple average RoE of 15.4% vs. 16.6%). This can be partly explained by the fact that non-euro countries' central banks tightened their policy stance at an earlier stage than the ECB. Furthermore, there are important differences driven not only by the region, but also business models, competition, asset and liability mix, etc. Banks located in the eastern and southern regions are more profitable, while banks located in the north and in the central region reported lower returns on their equity. This difference is also reflected in the expectations of

the banks for their future profitability. In the RAQ, banks from southern Europe are notably more optimistic about their profitability prospects than northern banks for instance (Figure 80).

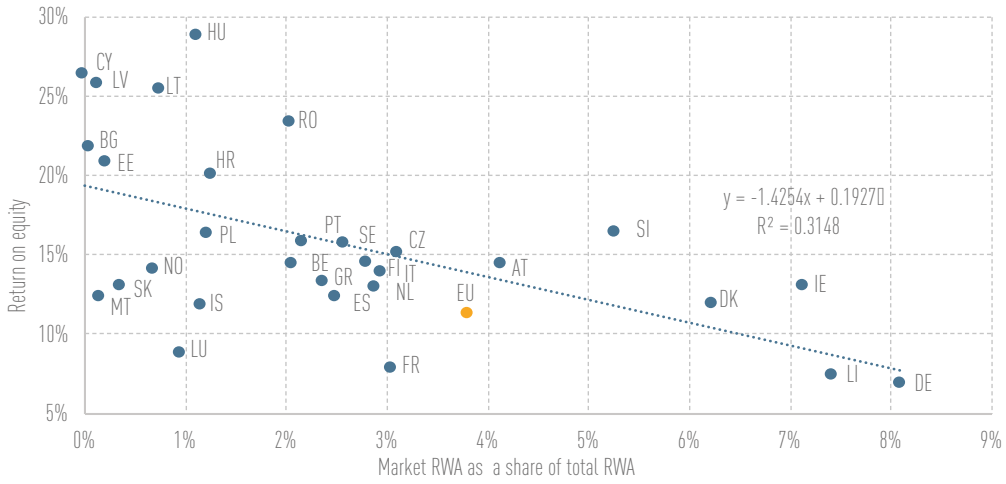
Figure 80: Simple average RoE by region (left) and expected increase in the bank's RoE over the next 6 to 12 months (right)
Source: EBA supervisory reporting data and EBA Risk Assessment Questionnaire



Variations of profitability are also explained by the exposure mix of the banks. Banks that have a larger share of non-variable rate on their asset side are less well oriented to benefit immediately from rising rates. This is notably the case for French and German banks as they report a smaller-than-average share of variable-rate loans. Further to this, a major driver of the difference in profitability is the fact that some banks were able to limit the repricing of their liabilities, notably deposits, and to diminish the pass-through of interest rates (see textbox on interest rate risk in this chapter).

Finally, some banks have large investment banking activities, such as in France and Germany. These jurisdictions tend to be exposed to a greater volatility in their income. In this regard, there is a small correlation between RoE and the ratio of market RWA to total RWA, hinting at this possibly negative effect in a context of corrections on financial markets (Figure 81).

Figure 81: Correlation between RoE and market RWA as a share of total RWA
Source: EBA supervisory reporting data

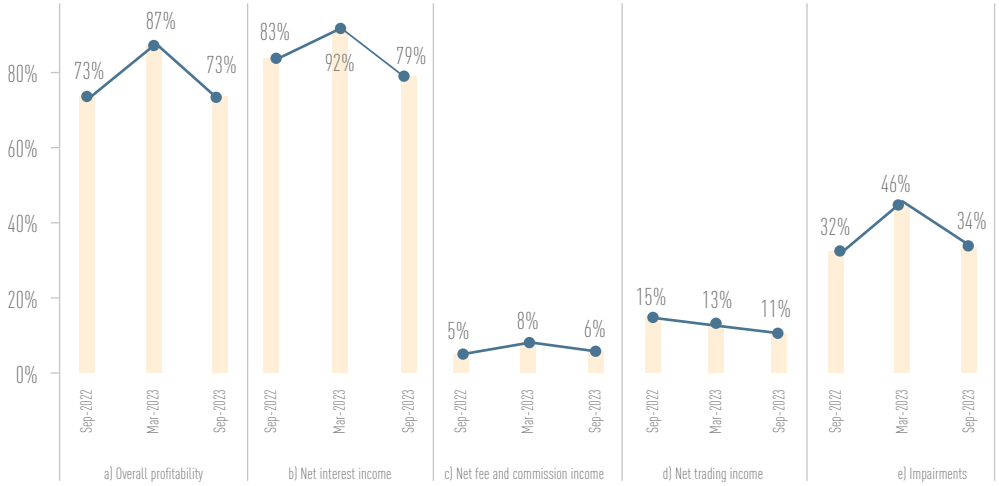


The profitability of banks that have the largest investment banking activities, such as in France or Germany, might have been negatively affected by corrections on financial markets, besides other factors (such as pressure on NIMs due to specific considerations on e.g. deposit or mortgage pricing). Another driver of this negative relationship is the slower growth and activity prospects which are detrimental to investment banking business, notably in terms of fees such as in investment banking's equity or M&A business lines.

Macroeconomic environment will put pressure on banks' profits

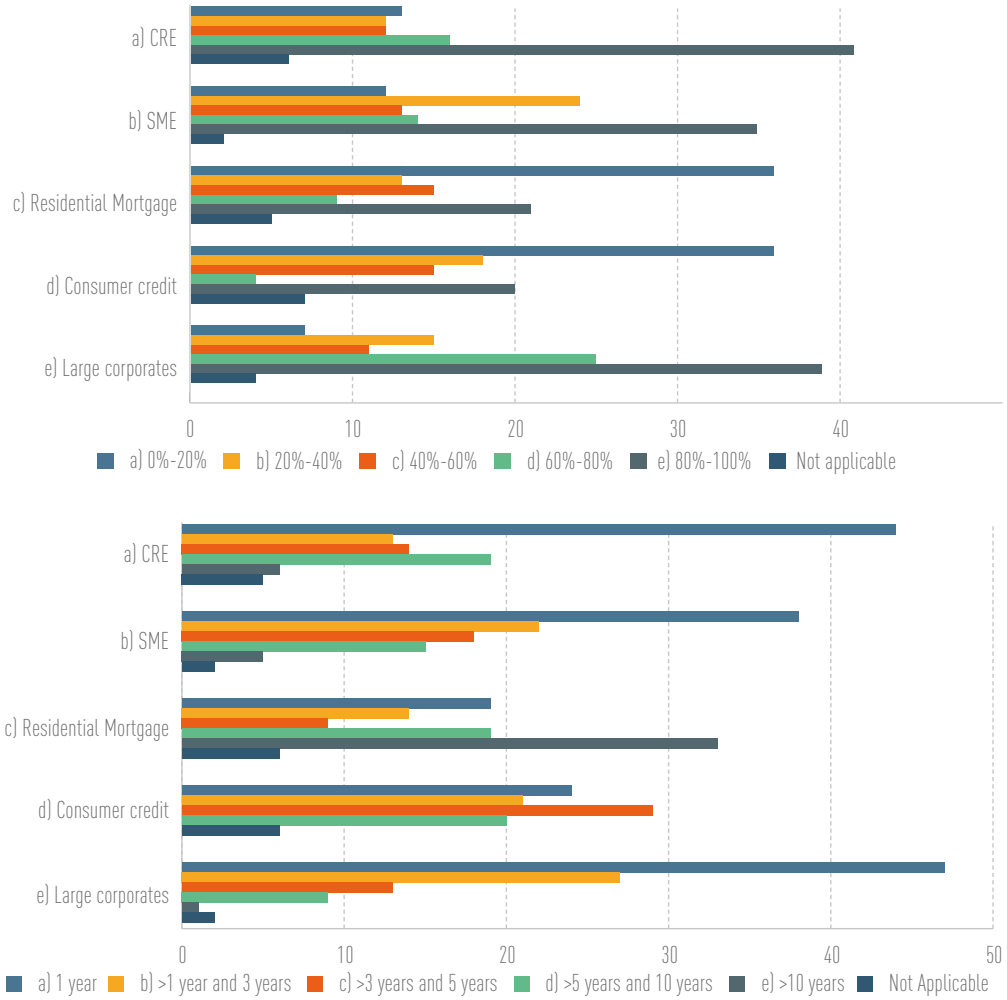
Future asset and liability repricing trends will be key to maintaining profitability levels. Banks still expect profitability to further improve, as they expect benefits in NII to further materialise in the next quarters (close to 80% of the banks surveyed in the RAQ). However, the share of banks expecting an increase is lower than in previous questionnaires, indicating that NII growth is approaching its peak. Around one-third of the banks expect an increase in impairments, yet this share is lower than in the previous survey (46% in spring 2023 vs. 34% in autumn 2023). This is probably driven by the better-than-expected, yet still subdued, economic growth (Figure 82).

Figure 82: Areas on which the rising interest rates have an effect (% of responding banks)
Source: EBA Risk Assessment Questionnaire



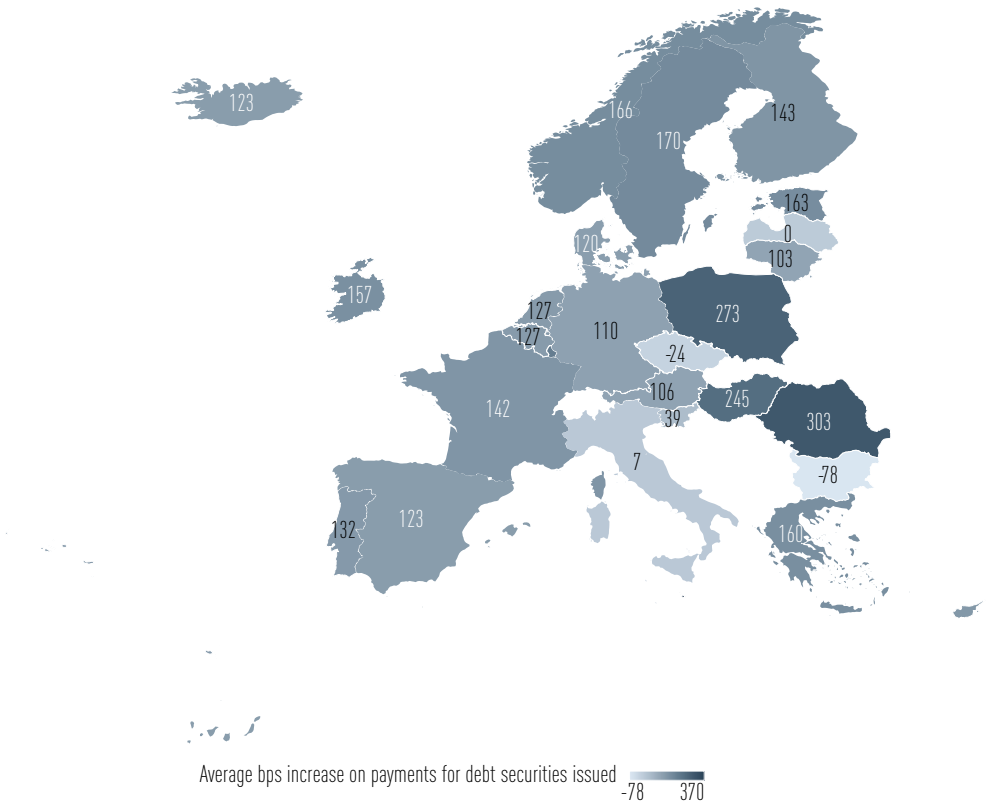
The profitability dynamics are also defined by the specific exposure mix of each bank. Specific portfolios, such as CRE, are expected to reprice faster than other portfolios with a high share of fixed-rate loans such as mortgage portfolios. The latter have the longest fixation period. A significant share of banks (33%) report their RRE portfolio has an interest rate fixation period longer than ten years, as RAQ results show. These portfolios take longer to reprice, especially in a period of subdued new loan generation, impairing banks' capacity to benefit from the higher interest rate environment. On the other hand, loans with fixed-rate portfolios are expected, on average, to have a lower credit risk than variable-rate loans, in which borrowers have to bear the substantial increase in the cost of borrowing (Figure 83).

Figure 83: Share of loans repricing in the next 12 months (top) and average interest rate fixation periods for loans at origination (bottom) (% of responding banks)
Source: EBA Risk Assessment Questionnaire



In a similar way to the asset side, there is material variation in the cost of funding depending on banks' liability mix. Funding costs rose for all banks, with yields and asset-swap spreads increasing materially for the EU/EEA region (see Chapters 1 and 3). Banks with higher reliance on market funding have seen their funding cost increasing significantly. This has affected more those banks that rely heavily on issuing debt securities for their funding purposes. The annualised average expense as a proportion of the total outstanding amount of debt securities in the EU was at 1.27% as of June 2022, which was nearly doubled as of June 2023 to reach 2.59%. The standard deviation increased during the period from 1.64% in June 2022 to 1.87% in June 2023, showing that the end of the low-rate environment translated not only into rate rises but also into an increased disparity. It should be noted that while the repricing of debt securities has been fast, they only represent 18.7% of the liability side of EU/EEA banks' balance sheet (Figure 84).

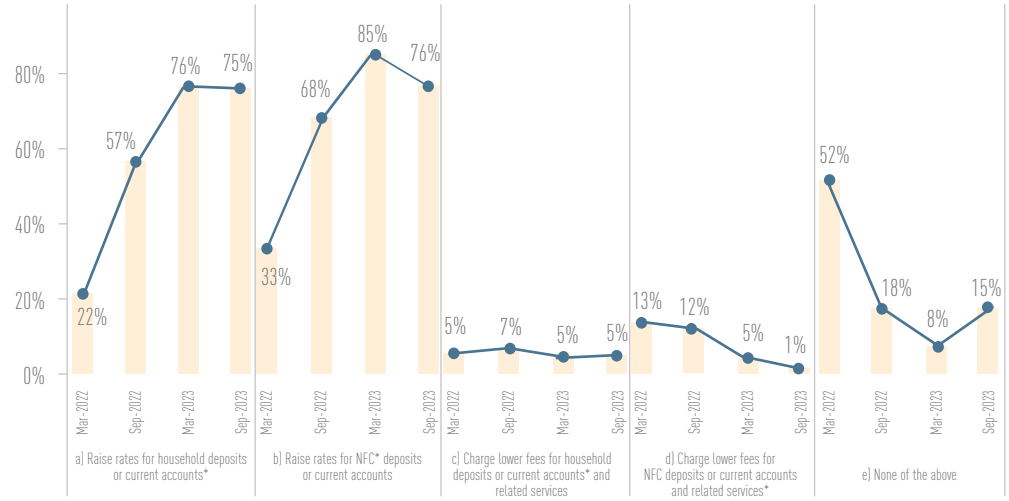
Figure 84: Average remuneration increase in bps on debt securities issued by country between June 2022 and June 2023
Source: EBA supervisory reporting data



In contrast to debt securities, deposits from customers (both HHs and NFCs) are more relevant in the overall funding mix (see Chapter 3.1 on funding composition). These client deposits reprice at a slower rate than market-based funding (see also the box on deposit betas in this chapter and Chapter 3.1 on funding, including pricing developments for different instruments). Banks that rely mostly on retail deposits, such as in Malta or Slovenia where more than 60% of liabilities are deposits from HHs, have been able to sustain their funding cost at low levels, as deposit repricing actions remained low.

The end of the TLTRO funding in 2024 associated with the higher funding cost on wholesale markets could incentivise banks to better remunerate deposits to attract more affordable funding. As well, a combination of growing pressure from customers, alternative investments supported by government such as public bond issuance marketed for retail, and political pressure might also push banks to increase remuneration served on deposits. Such a trend would affect NIM and subsequently NII. In the RAQ, 75% of banks say they intend to raise rates on HH deposits and 76% for NFC deposits. Consistently with this view, an increasing number of banks appear to be targeting deposits to meet their funding needs, replacing market and central bank funding (Figure 85 and Figure 37).

Figure 85: Given rising interest rates, actions banks are considering in relation to deposits (% of responding banks)
Source: EBA Risk Assessment Questionnaire

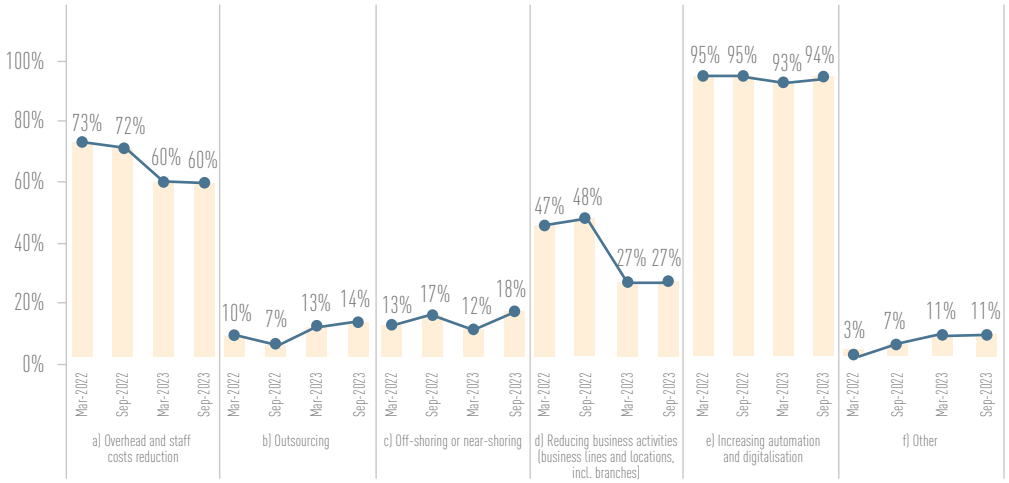


The ECB's decision to no longer remunerate banks' MRR also has a negative impact on their NII (see on MRR in Chapter 1). Finally, the gradual depletion of economic growth forecasts for 2023 and 2024 can have material effects on banks' ability to slightly pivot their income split towards a greater fees share, like the EU/EEA banking sector managed during the low-rate environment (see on the economic outlook Chapter 1).

Going forward, active cost management remains important given persistent inflation and increased foreseen expenses

According to the RAQ, the relevance of information and communication technology (ICT) investments is still important. 94% of banks deem that one of the primary measures to reduce operating expenses is to increase automation and digitalisation. In contrast, staff cost reduction is decreasing, from September 2022 at 72% to 60% as of September 2023. As well, reducing business activities decreased materially during the same period from 48% to 27%, which might be due to the overall better shape of EU/EEA banks' profitability (Figure 86).

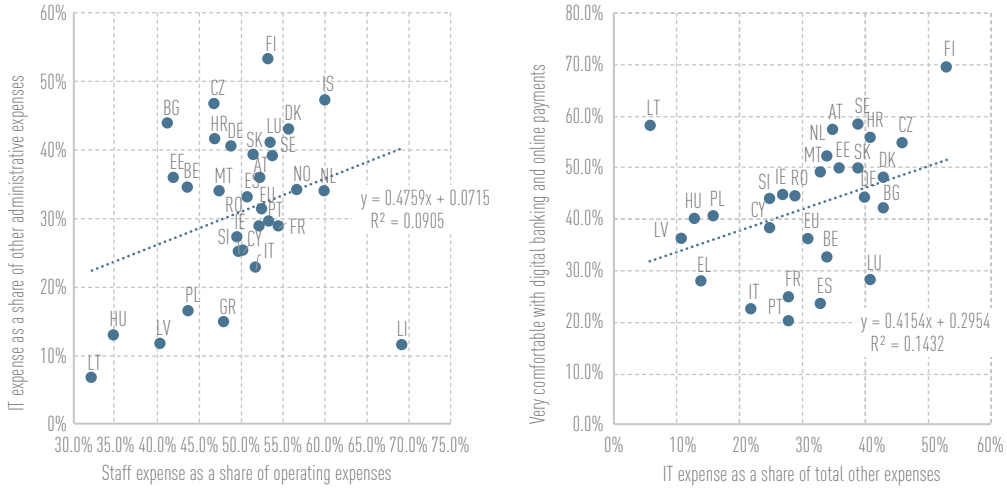
Figure 86: Measures that banks are primarily taking to reduce operating expenses/costs
Source: EBA Risk Assessment Questionnaire



Analysis shows a positive correlation between IT investments – measured as a share of other administrative expenses – and staff expense – measured as a share of total operating income. This might imply that IT investments do not necessarily result in lower staff expenses. However, it might in contrast indicate that banks invest in IT to address their high staff expenses. Nordic countries – where total operating expenses are lower compared to the EU/EEA average and other regions (see above) – tend to display a comparatively high share of IT expenses as a share of other administrative expenses and high staff expenses as a share of total operating income. This elevated share of IT expenses can be partly explained by familiarity of customers with online and digital banking. Taking information from a European Commission survey, there is a correlation at country level between IT expenses and the share of customers that are comfortable with online and digital banking.[70]

As such, IT expenses are assumed to have a positive impact on efficiency at least in later years and in the end positively affect profitability. However, while IT investments in general improve customers' experience when using banking services, their impact could be weaker in cases where customers are less inclined to adopt online banking services (Figure 87). The relevance of IT investments and if they result in a genuinely positive outcome for a bank was similarly part of the EBA's European Supervisory Examination Programme 2023. It asked supervisors to look into whether investments spent on digital efforts achieve actual transformations, and how institutions measure the success of their digital strategy.[71]

Figure 87: Correlation of staff expense as a share of total operating income with IT expense as a share of other administrative expenses (left), and correlation of customers comfortable with online/digital banking with IT expense as a share of total other operating expenses (right)
Source: EBA supervisory reporting data, European Commission "Monitoring the level of financial literacy in the EU"[72]



[70] This refers to the share of surveyed people that "feel confident managing their money and transactions online securely, via website or apps", according to the Eurobarometer on retail financial services and products from October 2022.

[71] See the EBA's examination programme priorities for prudential supervisors for 2023. The implementation will be monitored and covered in the EBA's 2023 Convergence Report.

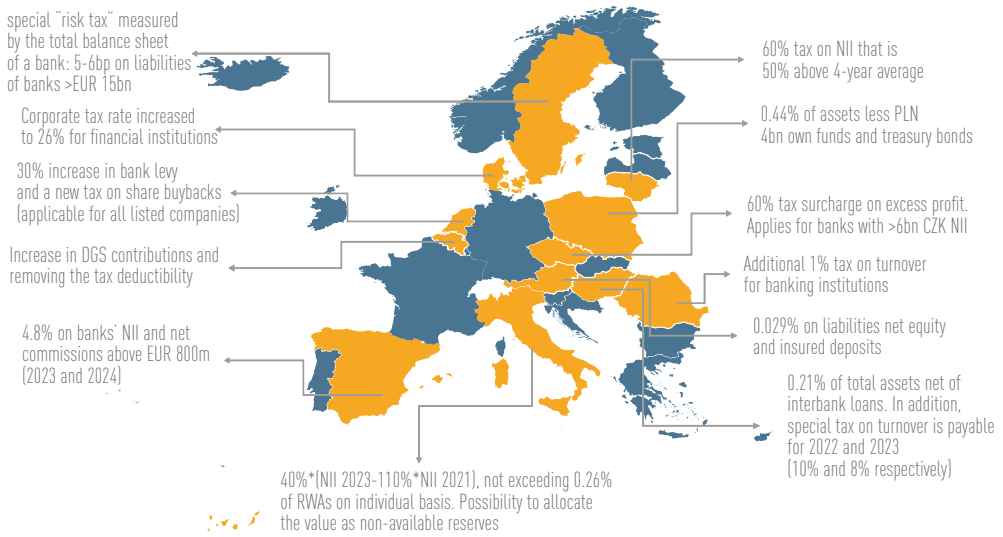
[72] See the European Commission's monitoring of financial literacy from July 2023.

Contributions to DGSs and RFs decreased between June 2022 and June 2023, from 1.7% of banks' equity to 1.4%. This decrease can be attributed to both slower growth of covered deposits across the EEA/EU (2.5% as of end-2022, compared to 7.4% in 2021 and 8.6% in 2020) but also the coming to an end, by July 2024, of the period of contribution to meeting the minimum target level applicable to all national DGSs.[73] As of end-2022, half of the 36 EEA DGSs had met their minimum target level, which in most cases is equivalent to 0.8% of covered deposits, therefore DGS contributions are expected to run off till near extinction in the coming year.[74]

Banking taxes are increasing in Europe, either through increasing profitability or through other taxes and levies, including windfall taxes, the latter being set following the large profits made by the banking sector. Taxes paid by banks materially increased by 30% from June 2022 to June 2023; the overwhelming majority of the increase (91%) comes from taxes on profits of continuing or discontinued operations, the remainder from other taxes and duties. With many more jurisdictions imposing taxes on the banking sector following the improvement in profitability, the overall tax level is bound to increase for the EU banking sector. This could affect the profitability outlook of banks and therefore all these measures need to be duly assessed from a cost-benefit perspective. Notably, the introduction of these new measures should consider whether some characteristics of the taxes imposed do not entail increased uncertainty for the banking sector (Figure 88).

With regard to operational risk considerations, profitability can, for instance, also be impacted by rising risk from sanction breaches. Notably, the EU/EEA banking sector should stay alert to the geopolitical unfolding of events, in order to be able to quickly adapt to a new environment, be it economic or regulatory (see also Chapter 6). Finally, looking further forward, the potential introduction of central bank digital currencies (CBDCs) may affect banks' profitability. This is something banks should consider when thinking about developing their business strategies for the medium-term future.

Figure 88: Implementation of a bank-specific tax and characteristics in selected countries
Main sources: finance and other ministries, tax and similar authorities and institutions, as well as central banks, EBA internal data collection among competent authorities, etc.



[73] See, for instance, the EBA's website on DGS data and similar and a Single Resolution Board (SRB) blog post on SRF contributions from May 2022.

[74] See the EBA's data update on deposit guarantee schemes across the European Economic Area from April 2023.

Box 7: Deposit pricing when central banks increase interest rates

Deposits are a large share of EU banks' funding items with a large impact on their profitability (see on funding composition Chapter 3.1). To better understand recent and potential developments associated with deposit costs, this box provides stylised facts about the behaviour of deposit pricing around episodes of monetary policy rate increases in the EU over the last two decades. It also discusses potential drivers behind deposit pricing during such periods.

Stylised facts about deposit rates in periods of increasing monetary policy rates

This box summarises the relationship between deposit and monetary policy rates with the deposit beta, which is the cumulative increase in new deposit rates relative to the cumulative increase in monetary policy rates over the same period. In general, deposit interest rates tend to increase following monetary policy rate rises in the EU. However, deposit betas are normally below one, indicating that banks tend to only partly pass through such rate rises.

The reaction of deposit rates during monetary policy rate increase episodes differs by product and counterparty. Deposit betas are in general lower for sight deposits compared to term deposits. Deposit betas are also lower for deposits from households compared to deposits from NFCs (Figure 89). ([75])

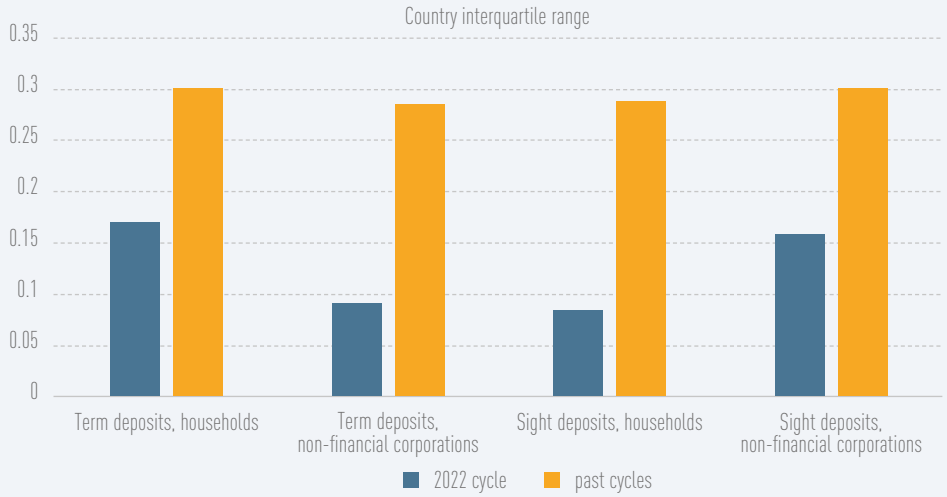
Figure 89: Deposit betas of EU banks for past and current policy rate increase cycles
Source: ECB monetary financial institutions interest rate statistics, central banks, IMF International Financial Statistics (IFS), EBA calculations

([75]) The deposit beta for each month since the start of the central bank policy rate increase episode is calculated as the cumulative change in the deposit interest rate for new business over the cumulative change in the central bank policy rate for the same period. The charts show the deposit betas for 12 euro area countries, Bulgaria, the Czech Republic, Denmark, Poland, Romania and Sweden for 30 monetary policy rate increase episodes over 2000–2023. The start of a policy rate increase episode was identified when the corresponding central bank policy rate increased and the end of the cycle was identified when the monetary policy rate decreased. The interquartile range is calculated for the 12-month cumulative beta.

When comparing the ongoing monetary policy increase cycle with past cycles, sight deposit betas appear to be lagging. However, term deposits appear to show a behaviour similar to that observed during past periods of monetary policy rate increases. Compared to the past periods of increasing policy rates, the country dispersion of observed deposit betas, measured by the interquantile range, is considerably lower during the current policy rate increase episode (Figure 90).

The lagging sight deposit betas can help explain the overall slow repricing of deposits during the current interest rate increase cycle. During the past decade, which was defined by very low and negative interest rates, the share of sight deposits in the total deposit mix increased markedly. Additional analysis shows that during periods of increasing interest rates the share of term deposits increases, which also lets the overall deposit beta accordingly increase.

Figure 90: Interquartile range of EU deposit betas for past and current central bank policy rate increase cycles
Source: ECB monetary financial institutions interest rate statistics, central banks, IMF IFS, EBA calculations



Drivers of deposit pricing

One of the drivers for deposit pricing and the reaction of depositors and banks to increases in monetary policy rates is the market structure. Betas below one already indicate the presence of market power in the deposit market.[76] The presence of market power is presumably key for the pricing of deposits as it implies that banks can increase mark-ups on deposits following an increase in monetary policy rates. Market power can stem from market concentration but also other factors, such as consumer behaviour, which can all differ significantly between Member States.

Over the past 20 years, the number of credit institutions in the EU is on a downward trend. Such consolidation helps to improve banks' profitability amid rising revenue and cost synergies. However, in certain cases this might result in a decrease in consumer choice and deposit market competition. Banks can also leverage on technology to target the pricing of deposit products by learning more about their customers' liquidity needs. Using this informational advantage, banks can offer more tailored bundles of banking products to their customers. Furthermore, by cultivating their brand and refining their customer experience, banks can increase customer loyalty and decrease the price elasticity of deposits. Brand strength could be important in times of financial uncertainty, as depositors might resort to banks perceived as safer, offering a pricing advantage to the latter. Something similar could to a certain degree be seen in the aftermath of the SVB collapse, when US deposits moved from smaller to larger banks.

Consumer behaviour is another defining factor of deposit pricing. Customers tend to switch their bank rather infrequently. According to a 2020 survey from the Euro-

[76] See Drechsler, I., Savov, A. & Schnabl, P. (2017). The deposits channel of monetary policy. *The Quarterly Journal of Economics*, *132(4)*, 1819-1876.

pean Commission, only 7% of households switched banks in the two years prior to the survey, a share lower than for other services, including other financial services such as insurance.[77] Customers' liquidity and payment needs influence how much customers can tolerate a low pass-through before withdrawing their deposits. Sight deposits, which are primarily used as cash-like instruments and are associated with more convenience and safety compared to cash, offer lower interest rates compared to term deposits, which forego some of the convenience of sight deposits and are used for longer-term savings goals. Over the past decade, sight deposits grew as a share of total deposits, weighing on the aggregate pass-through from monetary policy to overall deposit rates.

Customers have different degrees of affinity with financial markets and products. Deposit rates for NFCs, which are more actively involved in managing their balance sheets compared to households, show consistently higher pass-through compared to deposits from households. According to the July 2023 Eurobarometer survey, only 45% of the respondents understand how compound interest works.[78] The higher beta for NFC deposits is observed across all monetary policy rate increase episodes analysed. At the same time, some customers tend to pay less attention to developments in financial markets and alternative options than others, while information on deposit and alternative offerings might be costly to find. Furthermore, monetary policy decisions might not always reach or be understood by the general public and thus could fail to affect expectations about future interest rates and inflation.[79] A study using ECB supervisory data finds that household sight deposits have indeed a significantly higher duration compared to corporate sight deposits, suggesting that household deposits are indeed stickier.[80] Nevertheless, recent data about deposit volumes shows that households and NFCs are seeking higher remuneration and moving their resources from sight to term deposits. The move is more pronounced for countries where inflation is higher and thus the opportunity cost from not seeking higher remuneration is larger.

Banks' own liquidity and funding needs also affect deposit pricing and deposit market competition. A faster asset side expansion and higher loan-to-deposit ratios lead to a higher need for deposits and thus competition to attract them. Developments in wholesale markets, such as decreased demand for bank debt issuance or higher pricing for that – as for bank bond markets any rate change immediately affects outstanding and newly issued debt – as well as more expensive interbank funding, can force banks to seek out more retail customer deposits. The latter increases banks' incentives to raise deposit rates.

Additionally, new liquidity and funding related regulation, such as the LCR or the NSFR, consider deposits as a stable source of funding and thus incentivise banks to rely on deposits. However, the weighted average loan-to-deposit ratio for households and NFCs is on a downward trend for EU banks since 2014, when the coverage of the EBA supervisory data begins. Further, banks have improved their liquidity position with a higher share of liquid assets and more stable funding sources (on LCR and NSFR trends see Chapter 3.2). At the current juncture, higher liquidity combined with relatively subdued loan growth means that banks face less pressure to compete at the extensive margin for new deposits. Balance sheet structure can play a role too. If banks hold more fixed-rate assets, they tend to be reluctant to pass through a large part of monetary policy rate changes to depositors, provided the latter remain stable, to protect their NIMs.

At the same time, the deposit market is highly regulated, which can affect the relationship between monetary policy and deposit rates. Certain countries regulate deposit rates or impose ceilings on the

[77] See the European Commission's Market Monitoring Survey 2020 – Bank accounts.

[78] See Flash Eurobarometer 525 – Monitoring the level of financial literacy in the EU, July 2023.

[79] See Pinter, J., Kocenda, E. (2017). Media Treatment of Monetary Policy Surprises and Their Impact on Firms' and Consumers' Expectations. *Journal of Money, Credit and Banking*. The authors show that monetary policy decisions influence households' and non-financial corporations' expectations to the extent that the decisions are covered by the media. For a literature summary of central bank communication with the general public see Blinder, A. S., Ehrmann, M., De Haan, J. & Jansen, D. J. (2022). Central bank communication with the general public: Promise or false hope? NBER Working Paper No 30277.

[80] See Hoffmann, P., Langfield, S., Pierobon, F. & Vuillemey, G. (2019). Who bears interest rate risk? *The Review of Financial Studies, 32(8),* 2921–2954.

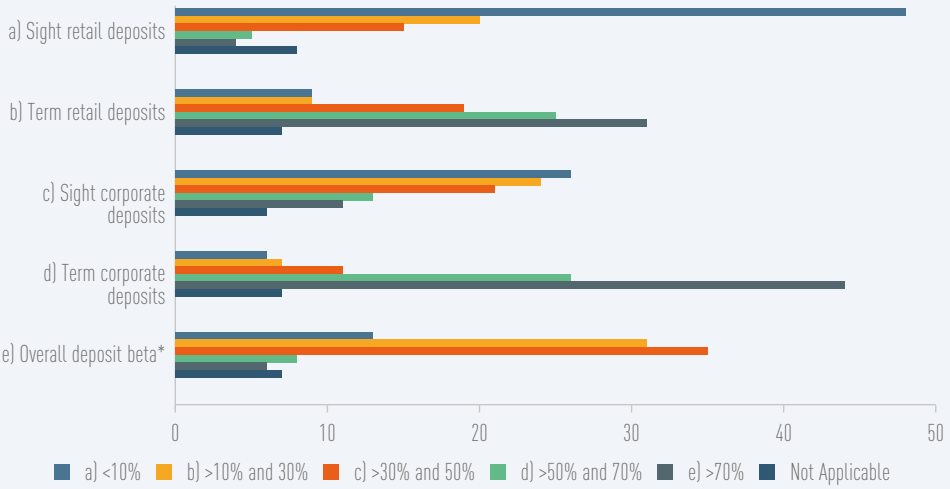
deposited amounts.[81] Over the past decade, DGS coverage limits have increased and became uniform across the EU, while better-funded DGS funds and resolution requirements create larger buffers to protect depositors compared to the past. The DGS decrease covered depositors' sensitivity to news about interest rates and affects the price and non-price elasticity of deposit demand.

An important difference with past tightening cycles is that the ongoing cycle follows a period of very low and, in some jurisdictions, negative monetary policy rates and quantitative easing. Lower pass-through compared to past monetary policy rate increase cycles could be an effect of the low starting point. Deposit interest rates were effectively floored to zero even in jurisdictions where central bank policy rates and short-term money market rates were in negative territory. When central bank policy rates started rising, banks were quick to eliminate negative interest rates, while there was a slowdown in the increase of fees paid for deposits. As interest rates remain at higher levels and depositors continue adjusting their interest rate expectations, it is likely that more depositors will become willing to seek out higher remuneration for their deposits by switching their bank, moving to term deposits or opting for alternatives beyond bank deposits.

Forward-looking considerations

Going forward, there are signals that deposit repricing will intensify. Autumn RAQ results tend to indicate that there is rising competition for retail deposits. The responses show that more banks aim to increase their retail deposits as a share of their funding mix (see Chapter 3.1 on banks' plans for their funding mix). At the same time most banks are planning to further increase the rates they pay for household and NFC deposits (see Chapter 5 on the NIM pressure from deposit repricing). RAQ results also show that banks expect deposit betas to remain the lowest for HH sight deposits (50% expect a beta of 0.1 or lower). For NFC term deposits nearly 50% of banks expect a beta of more than 0.7. Around 80% of the banks expect the overall average deposit beta to be around 0.5 or lower in the next six to 12 months (Figure 91).

Figure 91: Banks' expectations on the level of deposit beta for each of the following portfolios in the next six to 12 months
Source: EBA Risk Assessment Questionnaire



[81] For example, the Livret A accounts in France operate as normal savings accounts. However, the interest rate is set by the government considering inflation and there is a maximum allowed deposit amount per person.

Box 8: Banks' management and hedging of interest rate risk

Interest rate risk has been a key topic for regulators and supervisors for a long time.[82] Risk management practices and methodologies widely differ across banks and jurisdictions. An analysis of selected EU/EEA banks' disclosures shows that interest rate risk management is mainly done at balance sheet or portfolio level.[83] Banks' disclosures refer to gap analysis or replicating portfolios, the usage of micro hedges (economic ones, as well as hedge accounting within the meaning of IFRSs, for instance), structural hedges, matched funding of certain loans, and such like. Despite banks' disclosures and elaborations on interest rate risk management, there remain certain concerns, which are not least due to the dispersion among banks' capabilities to manage this risk. Key concerns tend to be related to banks' modelling assumptions, including behavioural assumptions of depositors or assumptions related to prepayment of loans.

IRRBB-related disclosures and data are one of the key sources for the analysis of banks' interest rate risk.[84] An analysis of the impact of a parallel move-up of the yield curve on the economic value of equity (EVE) – measured as a share of Tier 1 capital (T1) – shows that for around 75% of the banks the overall impact is negative.[85] For the remainder it is positive. This illustrates the wide dispersion of the EVE impact, and that banks apply different measures and approaches when managing and hedging their interest rate risk. The dispersion is also driven by different risk appetite among banks. It furthermore indicates that in general banks have hedges or other measures in place to limit extreme effects in the event of such rate moves.

Whereas the EVE impact of the upward rate move is positive for around 25% of the banks, the NII impact is in contrast positive for around 75% of them. This is not least due to the fact that the NII impact does not consider market value changes and has a more short-term view (Figure 92). It needs to be added that there is by nature also a risk of suddenly declining rates. IRRBB data covers this scenario, too. The results of the parallel downward movement of the interest rate curve are negatively correlated to the parallel upward movement.

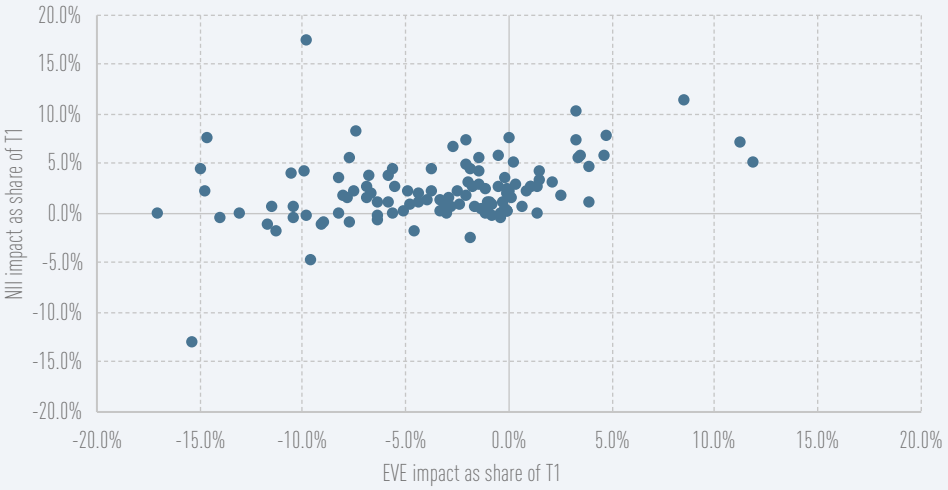
[82] On related regulation see the EBA's Guidelines on interest rate risks for banking book (IRRBB) and credit spread risk arising from non-trading book activities (CSRBB) as well as related Regulatory Technical Standards on the standardised approach and the supervisory outlier test. The following analysis covers the interest rate risk for the banking book as well as related hedging, with a particular focus on the impact of rate rises (see Chapter 1 on the rise in interest rates). Such analysis tends to be very challenging. The key reason is that interest rate risk management can hardly be captured with reporting data or other quantitative approaches. Qualitative aspects also have to be considered in such analysis.

[83] This analysis is based on the disclosures of 30 EU/EEA banks from different jurisdictions and of different size.

[84] This analysis is based on a sample of around 165 EU/EEA banks as of year-end (YE) 2022 (QIS data), based on banks' internal risk management systems.

[85] The underlying assumption is, for instance, a 200 bps parallel move-up of the interest rate curve for EUR.

Figure 92: EVE vs. NII impact as a share of T1 capital, from parallel upward movement of the yield curve (excl. those outside 20% impact)
Source: IRRBB data as reported by selected EU/EEA banks



Further analysis of underlying data indicates that fixed-rate assets tend to have the biggest impact, followed by fixed-rate liabilities. The impact from floating-rate assets and liabilities tends to be less significant than from fixed-rate positions. These results imply that the biggest risk from rate rises comes from fixed-rate assets.

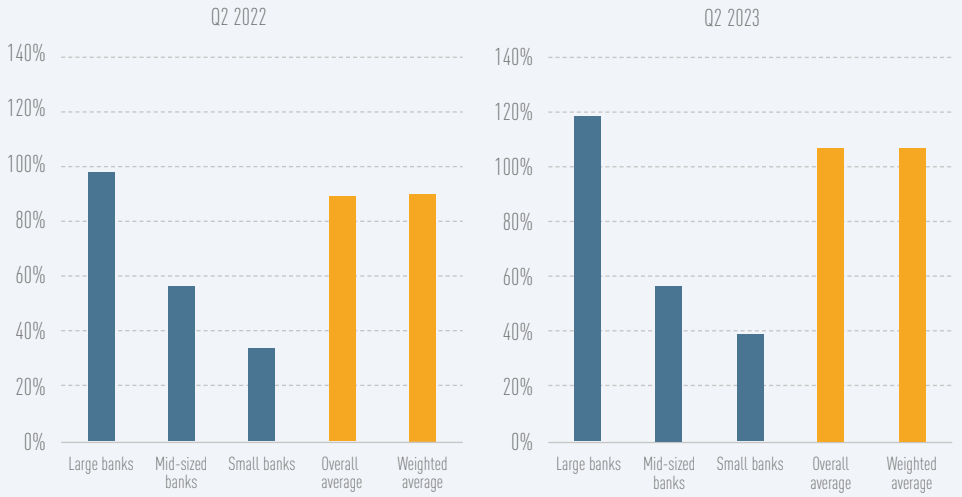
Besides IRRBB disclosures and data, supervisory reporting data also provides certain indications for banks' interest rate hedging, in particular related to interest rate derivatives. It needs to be stressed that this analysis can only be limited, as banks might not need any derivatives for hedging their interest rate risk, depending on their asset and liability composition, for instance.

It should also be noted that accounting-based information – such as banks' financial statements – does not necessarily fully reflect banks' hedging. This is because banks might not designate all derivatives which are considered in the bank-wide interest rate risk management as hedging derivatives for accounting purposes, i.e. as hedge accounting derivatives. However, for the latter reason supervisory reporting data includes information on so-called economic hedges. These are hedging derivatives that are held for hedging purposes but which, for instance, do not meet the criteria to be effective hedging instruments within the meaning of the applicable accounting standards. As such, supervisory reporting data might not fully reflect banks' interest rate hedging positions, but provides at least an indication for the relevance of interest-rate-related derivatives for hedging purposes, e.g. their relevance over time, as well as by size class of banks.

Supervisory data indicates that the relevance of interest rate hedging derivatives – including economic as well as hedge accounting derivatives – has risen YoY, as banks have reported a bigger ratio of hedging derivatives (notional) relative to their bonds and loans (book value) as of June 2023 compared to June 2022. The analysis also indicates that larger banks seem to make bigger use of derivatives for the hedging of interest rate risks than other banks.[86] Small banks, in contrast, tend to make less use of hedging of interest rate risk with derivatives (Figure 93). Small banks also tend to have a higher share of economic hedging derivatives, which are not designated as hedging derivatives for accounting purposes.

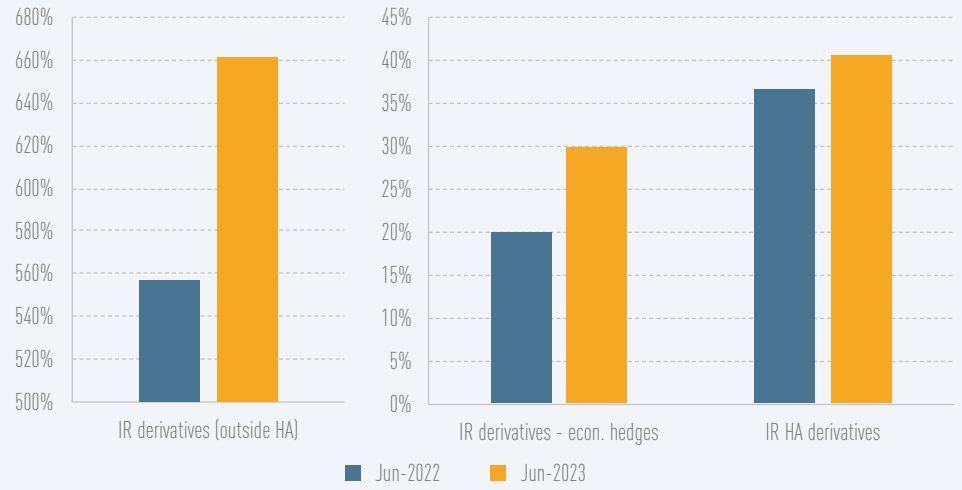
[86] This analysis is based on FINREP and a sample of around 300 banks, to also cover small institutions. The following analysis sets derivatives' notionals into relation to book-value loans, bonds and total assets to make their usage comparable. This does not imply that interest rate derivatives solely hedge assets. They can be used for different purposes, such as hedges of net positions, assets and liabilities.

Figure 93: Interest rate hedge accounting and economic hedge derivatives (notional) as a share of the sum of book values of bonds and loans at amortised cost (AC) and fair value through other comprehensive income (FVtOCI), June 2022 (left) and June 2023 (right), average by size class and overall average as well as overall weighted average [87]
Source: EBA supervisory reporting data



The latter is similar when measured as a share of total assets. This applies to interest rate derivatives outside hedge accounting. I.e. these results are similar when considering all interest rate derivatives including those for economic hedges, but excluding those that are considered as hedge derivatives for accounting purposes. The results also apply to interest rate derivatives that are used for economic hedges and to interest rate derivatives considered for hedge accounting purposes (Figure 94).

Figure 94: All interest rate (IR) derivatives (notional) as a share of total assets, excluding those considered as hedge accounting (HA) derivatives within the meaning of the applicable accounting standards (left), and interest rate (IR) derivatives (notional) as a share of total assets for economic hedges and for hedge accounting (HA)
Source: EBA supervisory reporting data



Further considerations of interest rate risk relate to the valuation impact of rate rises on banks' bond portfolios, for instance (see textbox on debt securities recognised at amortised cost in Chapter 2.1). Also, deposit composition and repricing forms a key parameter in interest rate risk management (see textbox on deposit pricing when central banks increase interest rates in Chapter 5). All these aspects are implicitly covered by the IRRBB analysis and are not

[87] The cut-offs are EUR 50bn for small banks and EUR 100bn total assets for medium-sized banks.

least part of banks' overall hedging strategy. One can conclude that interest rate risk management and hedging are in place, yet they vary widely according to size and business model. There is wide dispersion of the impact of interest rate risk management, and there are not least outliers, which might be particularly exposed to interest rate risk especially in an abruptly changing interest rate environment – whether it be with a positive or a negative move of the rate curve.

A key consideration about IRRBB-related analysis is the validity and realism of the assumptions behind the underlying parameters in respective calculations. Models depend on the applied assumptions, which need to reflect reality to the best degree possible and be reliable. This is of particular relevance in times of comparatively big changes of the interest rate environment, such as the recent migration from a low or negative rate environment to relatively high rates within a relative short time. Such developments presumably change client behaviour. Having models in place that are up to date to the specificities of the banks and of the economic environment is therefore paramount. Such models and their underlying parameters need to be in the focus of regulators and supervisors, to ensure that respective interest rate risk management and hedging as well as related data and disclosures can be trusted. Within such a volatile interest rate environment, the management of interest rate risk and sound hedging practices remain a key topic not only on regulatory and supervisory agendas but also on banks' own agendas. The EBA's 2024 European Supervisory Examination Programme accordingly covers the topic of interest rate risk and hedging, including the inherent level of IRRBB, the impact of changes in interest rates on NII and EVE, the assessment of modelling assumptions, and the hedging approaches and policies and their implementation.[88]

[88] See the EBA's examination programme priorities for prudential supervisors for 2024.

6. Operational risk and resilience

6.1. Operational risk and resilience: general trends

The relevance of operational risk and operational resilience for the banking sector has grown in the past years. Operational risk capital requirements account for 9.7% of total requirements (9.5% in June 2022), and they are the second most important component of banks' risk weights after credit risk. Dispersion across jurisdictions is comparatively low, with only two countries reporting less than 7%. Beyond operational risks as the risk of loss resulting from inadequate or failed internal processes, people, and systems or from external events, the scope and relevance of operational risk under close scrutiny expanded in recent years.[89] Financial institutions and supervisors pay close attention to conduct-related operational risk, including anti-money laundering (AML) risk and other legal risks banks have been increasingly exposed to. In addition, reputation risks remain high as well. Further to this, the relevance of operational risk broadened even further with technological advances, and underlines the importance of ensuring operational resilience. This is similarly reflected in RAQ responses, according to which cyber risks and data security rank the highest of the operational risks (Figure 95). Risk of ICT failures as a related risk remains high as well.

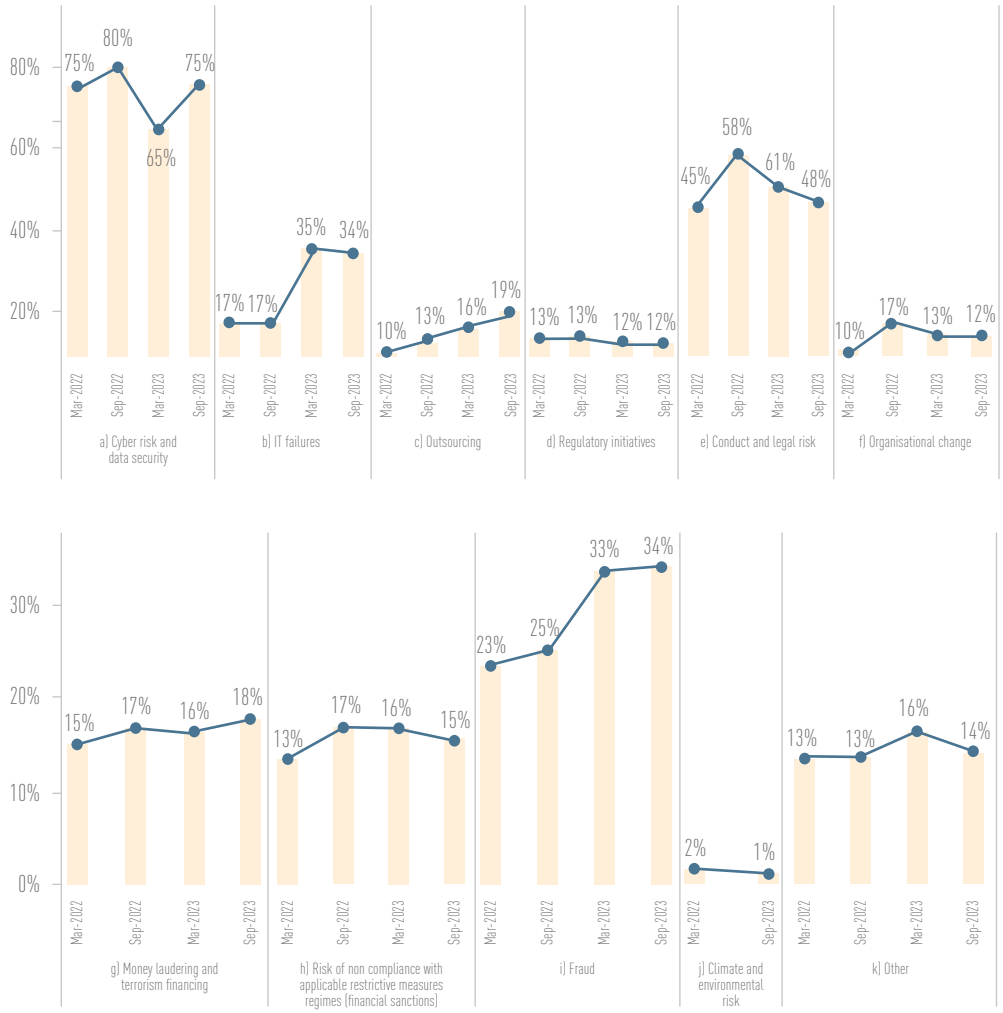
Exposure to reputational and operational challenges, including, for example, business conduct risk and the risk of financial crime including risks related to money laundering and terrorist financing, has not diminished either. Banks additionally expect an increasing risk of fraud, according to the RAQ. Conduct and legal risks are the second most relevant drivers of operational risk, at 48% agreement. They have become key operational risk drivers for banks in the past years (Figure 95), albeit slightly decreasing compared to last year's RAQ. Continued high volumes of legal and redress payments banks have to render underline the relevance of conduct and legal risks.

Both fraud and outsourcing risks have increased in banks' perceptions since last year, according to the RAQ. Risk of fraud is now a major driver of operational risk for a third (34%) of responding banks. It has increased steadily over time, with 10% agreement in the autumn 2022 RAQ. Outsourcing risk has also increased constantly since 2022, with 18% agreement, in line with increasing outsourcing of banks' business activities and data.

Heightened geopolitical tensions, but also continued breaches of AML provisions, require close attention of financial institutions and supervisors. Regulators are responding to these risks by various initiatives, e.g. by proposing a single rulebook on AML/CFT that, once adopted, will transform the EU's legal and institutional framework for supervision in this field.

[89] See BIS definition of operational risk in BIS Principles for the Sound Management of Operational Risk.

Figure 95: Main drivers of operational risk as seen by banks([90])
Source: EBA Risk Assessment Questionnaire



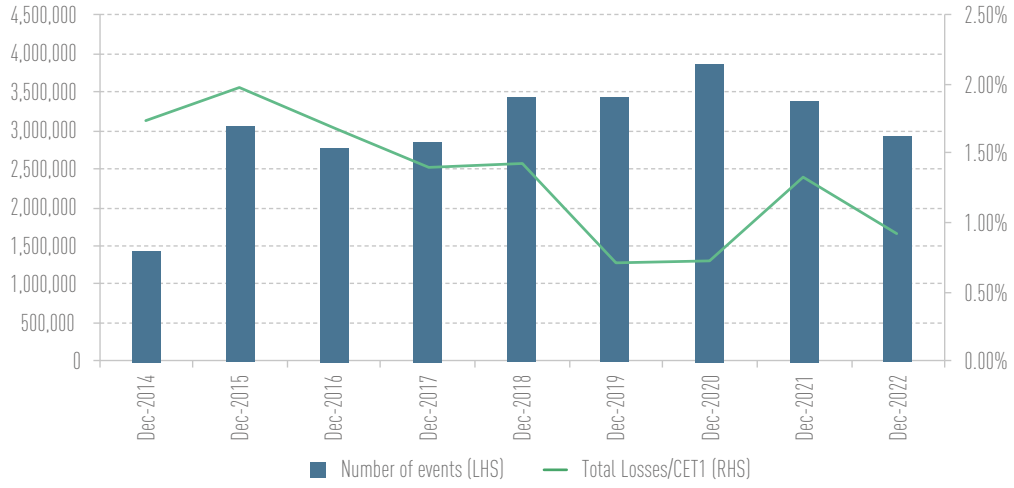
Operational risk losses are lower compared to pandemic peaks

At ca. 2.9 million events according to EBA supervisory reporting data, the total number of loss events EU banks reported in 2022 remained at a high level, albeit decreasing by 14% compared to 2021, when banks were still affected by the impact of the pandemic on their operations. The number of loss events further decreased compared to 2020, when ca. 3.8 million events were reported when banks were affected by the immediate impact of the pandemic. The number of loss events in 2022 is again close to the long-term average as reported in the years before the pandemic until 2019.([91]) This reversion might indicate that banks have strengthened their operational resilience, including in their responses to the operational constraints and challenges of the pandemic.

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

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

Figure 96: Number of new operational risk events over time, 2014–2022 and total losses in operational risk as a share of CET1([92])
Source: EBA supervisory reporting data



([92]) Gross loss amount from new events and loss adjustments relating to previous reporting periods.

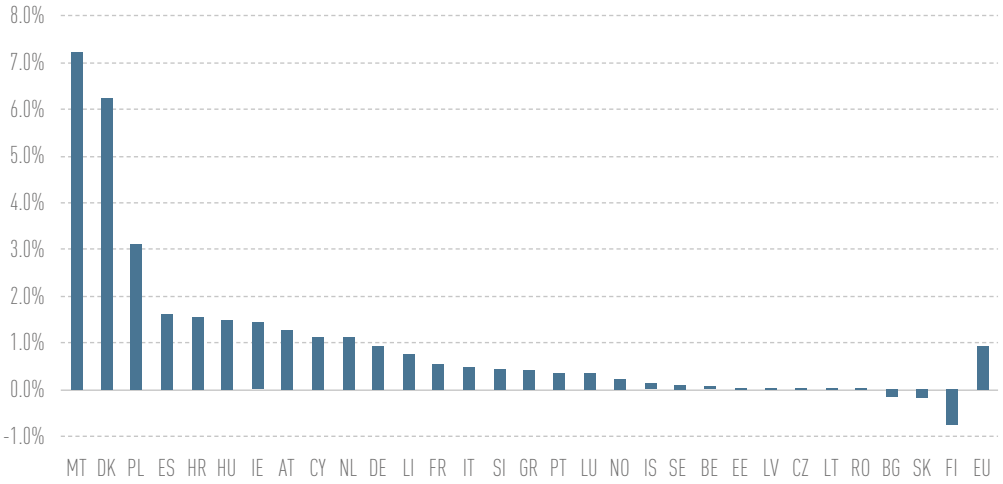
Beyond the number of operational loss events, the impact of losses related to operational risk remains high. Total materialised losses from new operational risk loss events reached EUR 13.5bn in 2022. While this amount is significantly lower than reported during the pandemic in 2021 (EUR 18.7bn), it is still higher than in the preceding two years. The continued high volume of new operational risk losses coupled with a high number of loss events may point to wider distribution of materialised losses from new operational risk events across banks. This may be aggravated by lingering cyber risks, and perceptions of increased fraud risks which may lead to additional materialising losses at a later stage. High operational risk losses should accordingly remain an issue of concern for the banking sector.

The amount of total losses from new operational risk loss events as a share of CET1 capital also decreased to 0.9% in 2022, from 1.3% in 2021, when banks' operations were still affected by the pandemic. The decrease of the ratio was largely driven by lower operational risk loss amounts reported in 2022. The ratio was high at about 1.4% in 2017 and 2018, but was at a lower level in 2019 and 2020. Recent operational loss figures also confirm that operational risk and its impact have remained high even after the additional operational constraints and challenges of the pandemic have faded (Figure 96).

Since total operational risk amounts only reflect materialised losses from new events, further future losses might arise. These might, for example, relate to misconduct payments, as a consequence of court rulings and legal settlements, or of IT failures. They will add in the coming year to losses that have already been recognised. A possible materialisation of the increasing fraud risk that banks perceive according to the RAQ might further add to losses. Operational risk events may not only cause direct financial losses but might also imply reputational damage, especially as a consequence of high impact events, or events gaining wider public attention. This may result in decreasing revenues in the future if a bank exits certain business areas or faces challenges to retain or attract customers. It may also result in increasing liquidity risk if, for example, depositors withdraw deposits in response to high-impact operational risk events or investors sell debt instruments issued by the bank concerned. Costs might, moreover, indirectly increase as a result of materialising operational risk, when higher investments in compliance and governance, or technology, become necessary, or when risk premia for market-based funding increase.

Country-by-country data on new operational risk losses shows that losses are widely dispersed. Several jurisdictions reported relatively low loss amounts, while in ten countries operational risk losses were at about 1% of CET1 capital or above. This was the case in only four countries in 2021. It is important to gain a deeper understanding of drivers of large divergences in operational risk losses across countries and banks, and to identify possible drivers or lessons where losses are low (Figure 97).

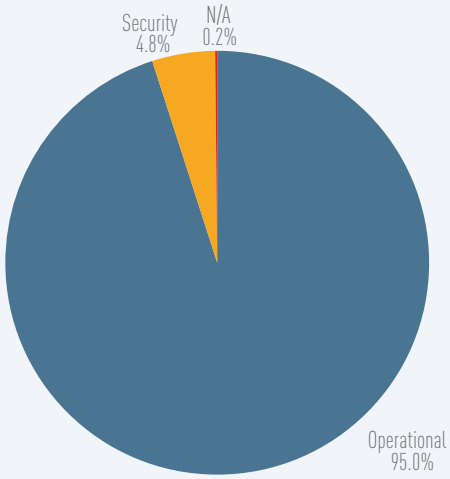
Figure 97: Total losses in operational risk as a share of CET1, by country, December 2022
Source: EBA supervisory reporting data



Box 9: Major incidents in the EU payments market([93])

Based on the provisions of Article 96 PSD2, the EBA has been receiving notifications of major operational and security incidents affecting payment services by PSPs across the EEA since January 2018, collecting more than 17,000 incident reports by the end of 2022.([94]) A large part of the incidents reported in 2022 were of an operational nature (95%), which includes failures of processes or systems and events of force majeure. Fewer than 5% were indicated as security incidents, e.g. incidents related to unauthorised access or operations (Figure 98). As regards the impact, most of the incidents affected the availability of services (91%), while only 7% had an effect on data integrity and 3% data confidentiality.([95])

Figure 98: Number of major incidents by type
Source: EBA E-Gate, EBA/ECB staff calculations



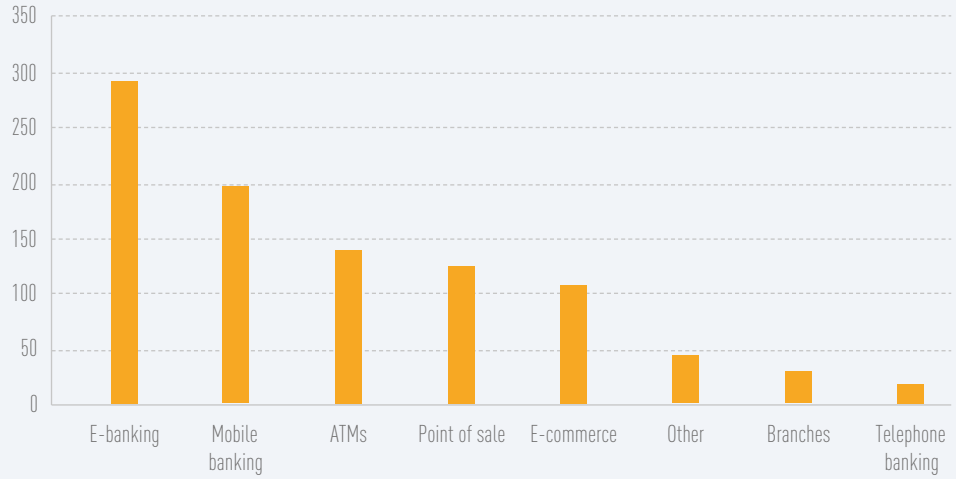
([93]) The data presented here is taken from ad hoc reports sent to the relevant NCAs by providers of payment services (PSPs) – i.e. credit institutions, payment institutions and electronic money institutions – in the case of a major incident. In order to be classified as major, an operational or security incident is assessed against criteria and thresholds articulated in the EBA guidelines on major incident reporting under PSD2.

([94]) The following results benefit from previous analysis of incidents reporting for 2022, which was carried out by the EBA in close cooperation with the ECB. The following analysis considers the incidents classified as major and for which at least one intermediate report was received (645 incidents).

([95]) A single incident can impact multiple security aspects.

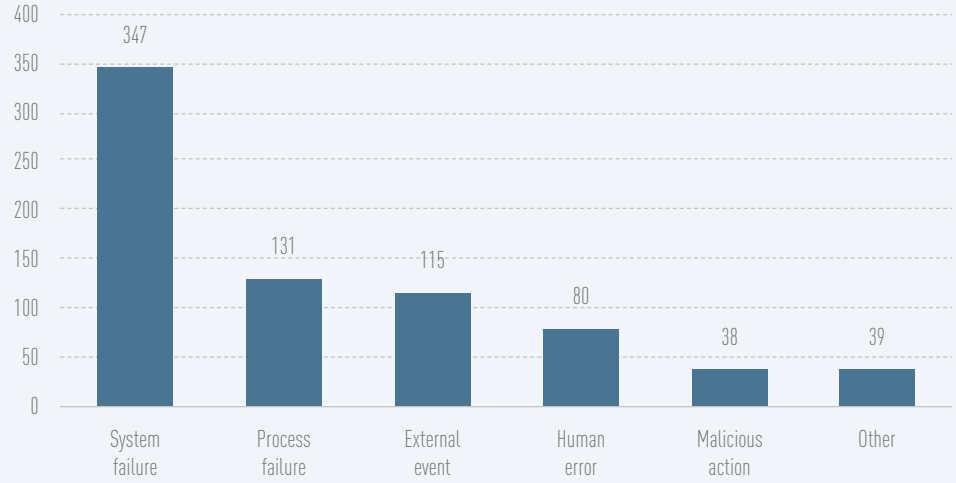
Focusing on incidents causing service unavailability, the major impact was recorded for e-banking and mobile banking applications, resulting in 300 million and 200 million customer hours of unavailability, respectively (Figure 99).[96] Incidents in e-banking/mobile banking were also the ones that required mostly the activation of business continuity plans.

Figure 99: Service unavailability due to major incidents by commercial channels affected (million customer hours)
Source: EBA E-Gate, EBA/ECB staff calculations



With regard to the geographical footprint, around 37% of the major incidents are indicated as having an impact also in other countries, with 11% appearing to have a broader impact across the EU, by affecting five or more Member States. The most frequent root cause reported is system failure, a trend that appears to repeat across the years; process failures and external events also appear to play a notable role (Figure 100).

Figure 100: Incidence of the root causes indicated for the major incidents
Source: EBA E-Gate, EBA/ECB staff calculations



Remarkably, only a small part of the major incidents (4%) was indicated as potentially cyber-related. In most cases they related to DoS/DDoS attacks with disruptions contained in less than one day. Some cases of logical intrusion, malicious code (including ransomware) attacks and major fraud through phishing / fake website campaigns were also observed.

[96] Customer hours are calculated by multiplying service downtime in hours by the number of users affected.

6.2. Digitalisation and ICT-related risks

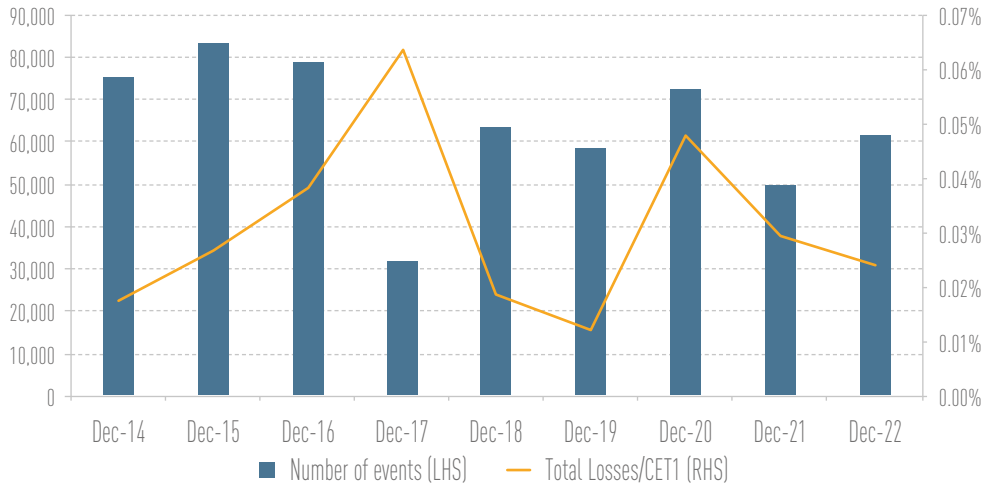
Digitalisation and the use of ICT at banks and their customers have become indispensable and are a cornerstone of business, as the digital transformation of the financial sector continues unabatedly. Banks are seeking to further digitalise their business, driven by technological advances, competitive pressure, customer demand and cost saving opportunities in the medium term. A large majority of retail banking and corporate banking customers are now primarily using digital channels for their daily banking activities.

Reliance on digital and ICT solutions, including outsourcing and ICT third-party arrangements, has resulted in enhanced digital and cyber risk exposure for banks, including vulnerability to sophisticated cyber-attacks. ICT and cyber incidents can affect financial entities' operational capabilities to provide critical and important functions and services which ultimately might affect financial stability. Regulators have responded to cyber risks with a range of initiatives, such as the Digital Operational Resilience Act (DORA), intended to create a regulatory framework on digital operational resilience.

ICT and cyber risk level is high

Cyber risk and data security continue to be by far the most prominent driver of operational risk for banks, as reflected in 75% agreement in their responses to the RAQ (Figure 95). As a related risk, 34% of respondents also point to ICT failures as a main driver of operational risk. EU banks moreover reported a rising number of new ICT risk events. The number of about 61,000 IT risk events reported in 2022 was over 20% higher than in 2021. At the same time the total number of all loss events of EU banks decreased by 14% in 2022, which highlights the growing relevance of ICT risk. Annual reported ICT risk events have in 2022 returned to the levels observed before the pandemic in 2018 and 2019, after a strong increase in 2020, reflecting the immediate impact of the pandemic (Figure 101).

Figure 101: Number of new IT risk events over time, 2014–2022 and losses in IT risk events as a share of CET1([97])
Source: EBA supervisory reporting data



In its 2022 Annual Report, the Financial Stability Board (FSB) highlighted the risk of cyber-attacks on key financial infrastructures, financial institution(s) or third-party service providers, subsequently potentially interrupting the provision of financial services and damaging confidence. The FSB also indicated how the frequency and sophistication of cyber incidents are growing rapidly, which could have spill-over effects across borders and sectors.([98])

In addition, geopolitical tensions as well as digital financial crime are playing an increasing role in the technological and digital space, with impacts felt across geographies. Recently increasing geopolitical tensions may lead to additional cyber and information security threats, including the risk of DDoS attacks. Cybercrime, including that which

([97]) Gross loss amount from new events and loss adjustments relating to previous reporting periods.

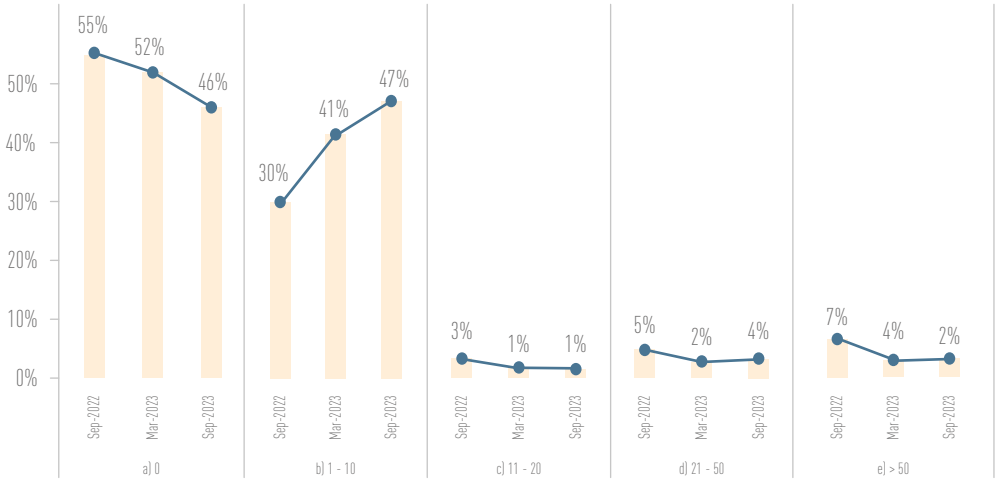
([98]) See the FSB report on Promoting Global Financial Stability (2022 FSB Annual Report) from November 2022.

is allegedly state sponsored, has led to further cyber risks, including threats to information security and business continuity, as witnessed, for example, with the Russian aggression against Ukraine.([99]) For banks and their customers alike, wider digitalisation of financial services, increased operational interconnectedness between financial entities and ICT third-party providers including subcontractors, and the reliance on the services these providers offer have increased the risks related to the use of ICT technologies, and in particular the risks related to cyber incidents. It is therefore of high importance that banks are well prepared for managing ICT risks including cyber risk and third-party risks. Supervisors are required to assess whether information security measures taken by banks are adequate to mitigate cyber risk, as expected by the EBA's 2023 European Supervisory Examination Programme.([100])

Vulnerability to cyber-attacks is unabatedly high

Indicating a materialisation of high risks, more than half of banks noted to have been victim of at least one successful cyber-attack in the first half of 2023 in their RAQ responses. The share of banks having been victim of up to ten successful cyber-attacks steadily increased since the first half of 2022, to 47% in the first half of 2023, while the share of banks falling victim to 11 or more cyber-attacks remained broadly stable. These figures indicate that the scope of successful cyber-attacks across the banking system has increased further in spite of further investments in ICT security infrastructures. Yet the share of banks falling victim to multiple cyber-attacks has not increased further in spite of a higher risk level and growing sophistication of cyber-attacks, which may indicate some overall progress in managing ICT risks (Figure 102).

Figure 102: Number of cyber-attacks that resulted or could have potentially resulted in a "major ICT-related incident" in the last semi-annual assessment period ([101])
Source: EBA Risk Assessment Questionnaire



RAQ responses also suggest that while the volume and frequency of cyber-attacks as such are unabatedly high, a large majority of responding banks (81%) report that they actually did not face a successful attack which resulted in an actual major ICT-related incident. However, this share decreased since the first half of 2022 (88%). 19% of respondents still faced at least one successful cyber-attack resulted in major ICT incidents (12% in the first half of 2022).

Publicly available data also indicates a continued high frequency of cyber incidents impacting the financial sector. For example, ENISA points to an increase in the volume of DDoS attacks against financial institutions in 2023.([102]) The ESRB pointed out a substantially heightened cyber threat environment across Europe, referring to an increase in cyber-attacks and active sabotage of power and telecommunications infrastructure in Member States, and to cyber activity re-

([99]) On, for instance, the increase of state-sponsored cyber-attacks, see the ECB's text on a framework for assessing systemic cyber risk from November 2022.

([100]) See the EBA's examination programme priorities for prudential supervisors for 2023.

([101]) This relates to an ICT-related incident with a potentially high adverse impact on the network and information systems that support critical functions of the financial entity (Article 3(7) DORA).

([102]) See ENISA Threat Landscape, October 2023.

sulting from Russia's aggression against Ukraine.[103] Similarly, a recent report by the Basel Committee on Banking Supervision / Financial Stability Institute (BCBS/FSI) indicates that ransomware, phishing, online scams and computer hacking have become the highest cybercrime threats globally.[104] It also quotes reports suggesting that the costs of cyber-crime increased strongly, from ca. USD 8.4tn in 2022 to an estimated USD 11tn in 2023.

Ongoing investments in ICT security are required

High vulnerability to cyber-attacks highlights the relevance of further investments in ICT and in related security, not least as digitalisation and ICT usage will further expand. Further effort is therefore required at banks to manage and address ICT security risk. This includes additional action to counter cyber-attacks and improve logical ICT security, and to ensure that the internal control framework to manage ICT security risk is adequate. Yet a lack of resources, including skilled and experienced staff, may pose challenges for further investments in ICT security infrastructures.

DORA responses to ICT security risks

In response to the growing risk of cyber-attacks and threats, and considering the reliance of EU financial entities on third-party ICT service providers for the use of ICT services to support critical or important functions, strengthening their operational resilience has been one of the key priorities for EU regulators and supervisors. In January 2023, DORA came into force, with the purpose of establishing a comprehensive framework on digital operational resilience for EU financial entities and of consolidating and strengthening the ICT risk management requirements that have so far been spread over the financial services legislation (e.g. CRD, PSD2, MiFID). DORA will apply in January 2025 and mandates the European Supervisory Authorities (ESAs) to prepare jointly a set of technical standards and guidelines. The first set of these mandates, which primarily deals with the requirements for ICT risk management and third-party risk management, has been already publicly consulted on and will be finalised by January 2024.[105]

ICT-related incident reporting and an oversight framework are under preparation

A second set of policy products is expected to be published for consultation by the end of 2023 and should be finalised by July 2024. This set aims to complete the ICT-related incident reporting framework, to provide further details on ICT subcontracting and advanced digital operational resilience testing (threat-led penetration testing) as well as to develop supplementary requirements on the design of an oversight framework. In parallel with the work on policy-related products, the ESAs are working together to set up a common oversight framework whereby they will assume the role of Lead Overseers for each critical third-party ICT provider (CTPP) and receive powers to ensure that CTPPs are adequately monitored at EU level in relation to the risks they pose to financial entities and ultimately to financial stability.

DORA furthermore envisages that the ESAs will establish mechanisms that will enable the sharing of effective practices to enhance situational awareness and identify common cyber vulnerabilities and risks across sectors. These could include tools to enable the receipt of major ICT-related incidents, to collect relevant data from the registers of information and to facilitate the oversight of CTPPs. To complement DORA provisions, the ESAs are currently working to implement ESRB recommendations to start preparing for the gradual development of an effective Union-level coordinated response (pan-European Union Systemic Cyber Incident Coordination Framework (EU-SCICF)) in the event of a cross-border major cyber incident or related threat that could have a systemic impact on the EU's financial sector.[106]

[103] See the ESRB's report on advancing macroprudential tools for cyber resilience from February 2023.

[104] See Crisanto, Pelegrini & Prenio (2023). Banks' cyber security – a second generation of regulatory approaches in FSI Insights on policy implementation No 50 and references therein.

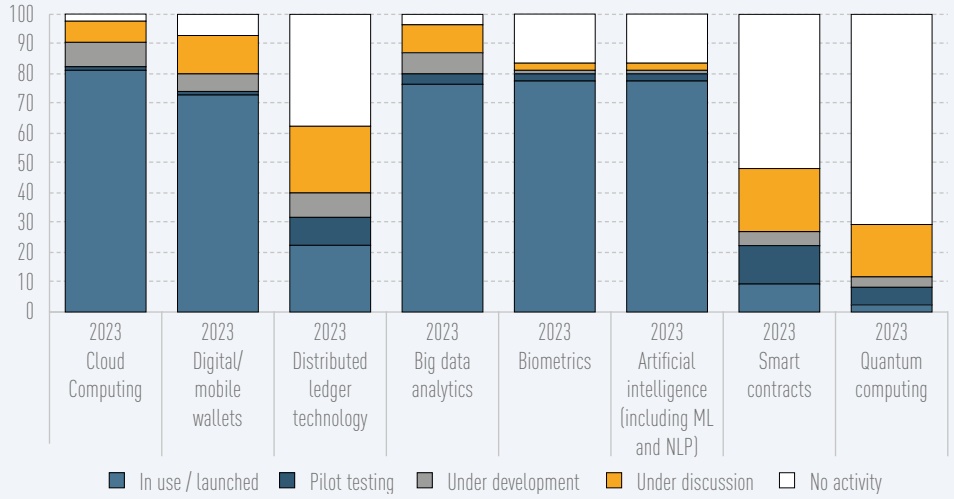
[105] See the ESAs' statement that they are consulting on the first batch of DORA policy products from June 2023.

[106] See the Recommendation of the European Systemic Risk Board of 2 December 2021 on a pan-European systemic cyber incident coordination framework for relevant authorities (ESRB/2021/17) (europa.eu).

Box 10: Digitalisation trends at banks

The 2023 RAQ shows that the use of certain innovative technologies has been consolidated within the banking sector, with more than 80% of banks using, testing or developing solutions that use cloud computing, big data analytics, digital/mobile wallets, artificial intelligence (including machine learning and natural language processing) and biometrics. Meanwhile, usage of testing of and experimentation with DLT or smart contracts is still limited, with only 22% of banks using DLT. Regarding quantum computing, while few banks report using it, the testing of innovations involving quantum computing is starting to pick up within the banking sector (Figure 103).

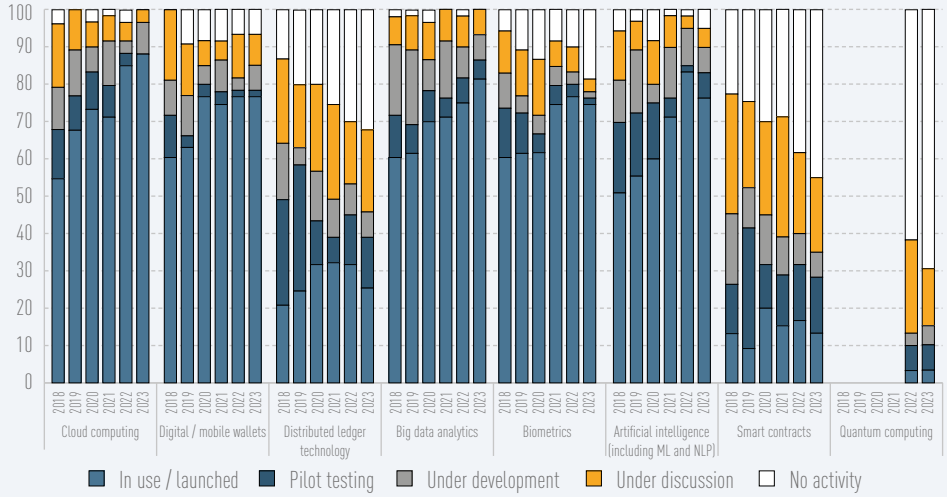
Figure 103: Level of involvement of banks with the application of the selected technologies (sample size – 85 banks)
Source: EBA Risk Assessment Questionnaire



The historical data from the RAQ shows that while the use of cloud computing and big data analytics solutions was already consolidated within a majority of banks during the last years, most of the remaining banks that were still testing these technologies have moved to actually using them (Figure 104).[107] However, data indicates that there is a certain plateauing of the proportion of banks actually using, testing or developing artificial intelligence and machine learning (AI/ML) solutions. However, this might also be linked to an extension of the sample of banks in the RAQ, and not to actual loss of interest or involvement in AI/ML by banks. Regarding DLT and smart contracts, there is a similar stabilising trend since 2020, with a certain level of decrease in the involvement of banks. Nonetheless, around 20% of banks are still testing and developing DLT and smart-contract-related solutions.

[107] For the 2023 RAQ, the sample of banks has increased to 85 banks. To ensure consistency with the 2022 Risk Assessment Report, Figure 104 provides time series year-on-year comparison based on a static sample.

Figure 104: Level of involvement of banks with the application of the selected technologies (for comparison, based on the adjusted sample) [108]
Source: EBA Risk Assessment Questionnaire



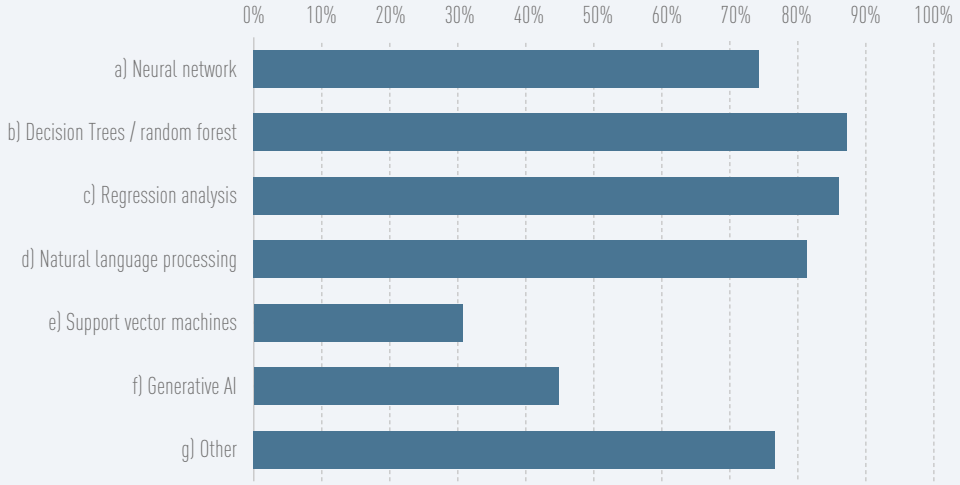
An analysis of the use of AI applications by banks shows that there are some areas in which banks are already using such tools (Figure 105). According to the RAQ, the most common use cases are profiling and clustering of clients or transactions (82% of banks), customer support, including chatbots (80%), and creditworthiness assessment or credit scoring (74%). Other significant use cases include, for example, AML/CFT (for behaviour or transaction monitoring), fraud detection, optimisation of internal processes, and risk modelling not related to regulatory credit risk (e.g. anomaly detection or sentiment analysis). While the pickup of AI/ML technology used by banks may not have been as fast and extensive as expected, it should be stressed that this may be related to potential reputational, legal or ethical risks that banks may face when using AI systems, including when those AI systems interact directly with consumers.

Figure 105: Applications of AI by banks, differentiated by AI methods and approaches
Source: EBA Risk Assessment Questionnaire

[108] For the 2023 RAQ, the sample of banks has increased to 85 banks. To ensure consistency with the 2022 Risk Assessment Report, Figure 104 provides time series year-on-year comparison based on a static sample.

An analysis of the AI methods and approaches used by banks indicates that banks are using a wide variety of AI/ML approaches for the use cases identified above (Figure 106). The two most common approaches are the least complex ones, namely decision trees/random forest (87% of banks) and regression analysis (86%). However, these are closely followed by more complex approaches, like natural language processing (81%) and neural networks (74%), while the use of so-called generative AI is quickly increasing, primarily for customer support (22% of banks) and optimisation of internal processes (13%). This increasing diversity and complexity may potentially contribute to introducing challenges in the supervision of AI systems used by banks, as well as to increasing model risk and technology risk management.

Figure 106: Banks that use different AI approaches
Source: EBA Risk Assessment Questionnaire



Financial institutions, including banks, are using diverse explicability techniques to mitigate the challenges raised by complex ML models, as explained in the EBA's follow-up report on the use of ML for IRB models.([109]) For instance, the report found that the most commonly used techniques are Shapley values (40% of respondents), followed by graphical tools (20%), enhanced reporting and documentation of the model methodology (28%), and sensitivity analysis (8%).

([109]) See the EBA's follow-up report on machine learning for IRB models from August 2023.

6.3. Financial crime risks

A high number of cases of money laundering (ML) involving European banks in recent years has caused substantial reputational damage to the banking system. ML and terrorist financing (TF) undermine the integrity of the EU/EEA banking sector. ML/TF breaches continued to make headlines in 2023. In 2021, the EC published a comprehensive legislative package that, once adopted, will transform the EU's legal and institutional framework. The proposals include a single rulebook on AML/CFT and the establishment of a central EU authority, the Anti Money Laundering Authority (AMLA) to address money laundering and counter the financing of terrorism (AML/CFT), with direct supervisory powers. However, ongoing negotiations on the AML/CFT legislative package and the scale of the proposed reforms have created legal uncertainty and hesitation by some credit institutions to proceed with investments in their financial crime controls.

Concerns about AML/CFT systems and controls

From an operational risk perspective, banks appear to continue to attribute less significance to ML/ TF risk than to other operational risk aspects. Risk awareness, nevertheless, appears to have increased slightly. 18% of respondents to the RAQ agreed that ML/TF risk is a main driver of operational risk, compared to 15% in the autumn 2022 RAQ.

The assessment by AML/CFT supervisors of both inherent and residual ML/TF risks faced

by credit institutions was stable between 2021 and 2023, as is detailed in the 2023 EBA Opinion on ML/TF risks affecting the EU's financial sector.([110]) According to AML/CFT supervisors' views expressed in the Opinion, the sector continues to present "significant to very significant" ML/TF risks. This is due both to the significant level of inherent risk in the sector and to ongoing concerns supervisors have about key AML/CFT systems and controls, which often are in place, but are not always effective. For example, credit institutions' transaction monitoring systems and suspicious transaction (STR) reporting are rated as "poor" to "low" by 30% and 36% of AML/CFT supervisors respectively.([111]) Management bodies of credit institutions are also found to pay insufficient attention to compliance, hampering their operational functionality.

([110]) See the EBA's Opinion of the European Banking Authority on money laundering and terrorist financing risks affecting the EU's financial sector from July 2023.

([111]) See Paragraph 115 of the EBA's fourth Opinion on money laundering and terrorist financing risks affecting the EU's financial sector from July 2023.

Risks associated with restrictive measures in response to the Russian aggression against Ukraine remain of highest concern for banks

Banks confirmed in 2023 a shift of focus since 2022 towards risks related to the implementation of restrictive measures in connection with the Russian war of aggression against Ukraine. Risks related to customers' transactions received from, or sent to, jurisdictions that are subject to international sanctions are still the most relevant ML/TF risks for banks, according to the RAQ. 38% of respondents consider it a high-significance risk, and 32% a significant risk. The Middle East crisis will further add to this risk.

Box 11: Terrorist financing risks amid the Middle East crisis

The Middle East crisis has brought back into focus the risk related to the financing of organisations that perpetuate terrorist acts. Hamas has been listed on the EU terrorist list since 2003 and is subject to freezing of funds and other financial assets. Available data shows that Hamas-linked terrorist organisations have received transfers in crypto-assets, though the size of individual transactions was small.

Risk associated with customers whose activities or leadership are publicly known to be associated with terrorism or extremism is the risk with the lowest significance for almost half of the banks (46%) according to the RAQ. Risks associated with customers transactions received from, or sent to, jurisdictions where groups committing terrorist offences are known to be operating, or that are known to be sources of terrorist financing, represent a risk of medium significance for 36% of banks.

According to AML/CFT supervisors, 59% of financial institutions lack understanding of terrorist financing risks. 48% of institutions do not adequately monitor transactions for indications of terrorist financing, and 70% over-rely on the screening of targeted financial sanctions lists instead of monitoring terrorist financing.([112])

The EBA's ML/TF risk factors guidelines set out how institutions should identify, assess and mitigate terrorist financing risks to which they are exposed.([113])

([112]) See the EBA's Opinion of the European Banking Authority on money laundering and terrorist financing risks affecting the EU's financial sector from July 2023.

([113]) See the 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 from March 2021.

Most banks consider their internal policies, procedures and controls for the implementation of sanctions sufficiently mature, as only 15% of respondents identify risk of non-compliance with applicable restrictive measures regimes as the main operational risk. At the same time, banks now consider the risk associated with customers whose ownership and control structure are opaque or unduly complex to be the second most important ML/TF risk, because individuals targeted by restrictive measures seek to conceal their assets. Risk associated with customers dealing in crypto-assets is also relevant for banks and is perceived slightly lower than in 2022. According to RAQ responses, payment and settlement are the only activities where more banks (56%) identify an increasing ML/TF risk, even if this represents a decline by 10 p.p. compared to the autumn 2022 iteration of the RAQ.

Continuous work has been ongoing to address ML/TF-related risks. Work on several

new guidelines under the Regulation (EU) 2023/1113 on transfers of funds and crypto-assets is intended to foster more effective risk management practices. Amended ML/TF Risk Factors Guidelines will be published by the end of 2023. New guidelines on internal policies, procedures and controls to ensure the implementation of restrictive measures under Regulation (EU) 2023/1113 are also being prepared.

Initial findings of the reporting to the EBA of AML/CFT weaknesses

In January 2022, the EBA launched EuReCA. This database contains information on material weaknesses in individual financial institutions in the EU that competent authorities have identified. Competent authorities also report to EuReCA measures they have imposed on financial institutions to rectify those material weaknesses. Since EuReCA's launch, more than 310 reports of serious AML/CFT deficiencies concerning 113 credit institutions and more than 180 measures have been received, which represent around half of the submissions for the EU financial sector.[114]

The majority of material weaknesses of credit institutions have so far been related to weaknesses of customer due diligence measures (56%), followed by deficiencies in AML/CFT systems and controls (17%), and weaknesses in suspicious transaction reporting (16%). Looking at the materiality criteria which have triggered the reporting of identified weaknesses to EuReCA, a weakness that increases the ML/TF risk exposure of a credit institution in question is the most frequent trigger for reporting by both AML/CFT and competent authorities. A weakness that has persisted over a significant period of time (duration criterion) is the second most frequent trigger.

6.4. Further legal and reputational risks

Conduct and legal risk continues to be the second most relevant operational risk to RAQ respondents, and its relevance remains high with 48% of RAQ respondents considering it as the main operational risk. Legal and reputational risks go beyond those related to digitalisation and ICT-related risks as well as ML/TF risks, incl. sanction-related. Concerns about past and potentially continuing unidentified misconduct persist and include, for example, facilitated dividend arbitrage schemes and fines associated with financial crime (Figure 95).

Beyond reputational damage for the banks concerned, misconduct costs and other costs stemming from legal or reputational damage, including from exposures to Russia and other "rogue states", have been substantive for banks concerned. These come in addition to the operational challenges these banks have faced. They also indirectly affect banks' ability to extend lending to the real economy. Misconduct and identified practices that facilitate inappropriate or fraudulent business can, moreover, undermine trust in the banking system and the proper functioning of the financial system.

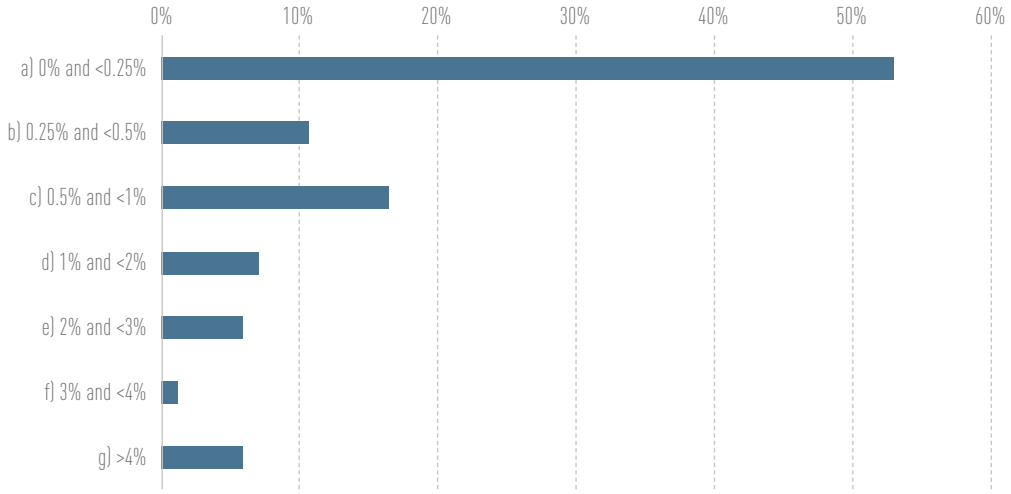
Redress costs from offering unsuitable advice or similar mistakes are high for some banks

Redress costs from misconduct have remained high even though few high litigation and settlement payments, such as those some large banks faced in the years 2016–2018, occurred between 2021 and 2023. In this time period, over a third of banks responding to the RAQ (36%) had to pay out at least 0.5% of their equity in the form of compensation, redress, litigation and similar payments. Thereof, 13% of banks paid out at least 2% of their equity in the form of such payments. 6% of banks paid out a high share of over 4% of their equity (Figure 107).

Compared to the 2022 RAQ, the share of banks having to pay out at least 0.5% of their equity in the last three years decreased. But the share of banks having to pay out a high share of their equity in the form of redress costs has grown. In the 2022 RAQ no bank indicated having paid out over 4% of their equity, compared to 6% in autumn 2023. This indicates that some banks were affected by substantially higher redress costs this year than in 2022. Observations that over a third of banks had to pay out at least 0.5% of their equity additionally show that elevated litigation costs are not only confined to a few banks but affect a wider share of European banks across geographies.

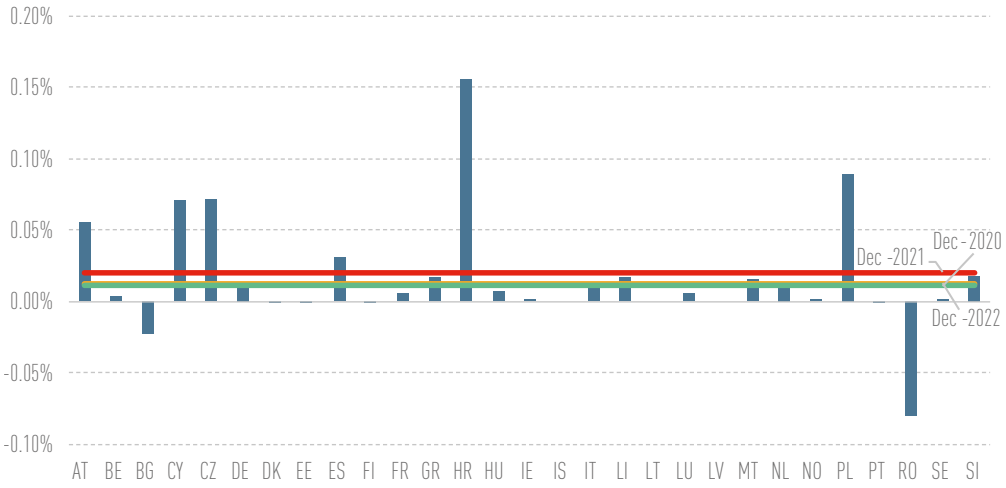
[114] On EuReCA data see also the overview of the main risks and vulnerabilities in the EU banking sector in the EBA's Risk Dashboard, editions for Q1 2023 and Q2 2023.

Figure 107: Total payments for redress costs in the past three years as % of equity
Source: EBA Risk Assessment Questionnaire



Data indicates that banks substantially lowered their provision for legal and conduct risk in 2022. Net changes in provisions due to pending legal issues and litigation measured as a share of total assets were at approx. 1.2 bps in December 2022 substantially lower than in December 2021 (at approx. 2 bps), but at a comparable level to December 2020 (at approx. 1.1 bps). Considering that the relevance of conduct and legal risk as the second most important driver of operational risk, according to the RAQ (48% agreement), lower net changes in provisions due to pending legal issues and litigation are an issue of concern. It will be important that banks adequately reflect pending legal issues and litigation in their provisioning policies (Figure 95 and Figure 108).

Figure 108: Net provisions for pending legal issues and tax litigation as a share of total assets by country (2022) and for the EU (2020–2022)
Source: EBA supervisory reporting data



6.5. Outlook of continued high operational risk

Going forward, various factors support an outlook for a continued high level of operational risk. Subdued economic prospects and heightened geopolitical tensions provide a backdrop for continued high operational risk. This includes possible losses from fraudulent activities and a potential opportunity for the emergence of new types of misconduct. A high level of cyber risk is moreover not showing indications of abating, and is aggravated by geopolitical tensions. Cyber risk may also increase further in line with technological advances. Reputational risks also remain high.

Some indications give additional concerns that further banks may be impacted by operational risk in 2023 and beyond. Risk perceptions for the main drivers of operational risk are high, while geopolitical tensions and their potential implications for banks may result in further operational challenges. Also, net changes in provisions for pending legal issues have decreased, while materialised operational risk amounts are high. It is therefore important that banks and supervisors give high priority to operational risk. They should stay vigilant in times of economic and geopolitical uncertainty, strengthen their monitoring of business conduct and operational risk, and ensure adequate provisioning for operational losses.

7. Retail risk indicators

Article 9(1) of Regulation (EU) No 1093/2010 requires the EBA to develop retail risk indicators (RRIs) for the timely identification of potential consumer harm. For this purpose, the EBA is publishing a list of 11 RRIs that covers a wide variety of different types of products in the EBA's remit (e.g. mortgage credit, consumer credit and payment accounts).[115] The indicators aim to facilitate the monitoring of the banking markets across the EU/EEA by measuring the risk of detriment arising to consumers from the misconduct of the institutions, and from wider economic conditions. They provide information that help the EBA and national competent authorities to prioritise their regulatory and supervisory work in the area of consumer protection but may be of interest to other, external stakeholders as well (Figure 109). An explanation of the methodology for the calculation of the RRIs, including related data limitations, can be found on the website.[116]

Figure 109: EBA retail risk indicators (summarising overview)
Source: EBA supervisory reporting data, payment fraud reporting data, World Bank

Product category	Name of indicator	Indicator number	Value – EU/EEA average	Reference period
I. Mortgage credits	Share of household loans with forbearance measures over total household loans	MC1	1.5% (1.7%)	30/06/2023 (30/06/2022)
	Share of NPLs collateralised by immovable property over total loans collateralised by immovable property	MC2	1.5% (1.5%)	30/06/2023 (30/06/2022)
II. Other consumer loans	Share of NPLs from credits for consumption over total credits for consumption	OCL1	5.2% (5.3%)	30/06/2023 (30/06/2022)
III. Payment and deposit accounts	Percentage of deposit interest expenses paid by banks to households over total household deposits	PDA1	0.5% (0.2%)	30/06/2023 (30/06/2022)
IV. Credit & debit cards	Share of fraudulent card payments over total card payments (in terms of volume and value of total transactions)	CDC1	0.02%	2022
			0.03%	2022
	Change to previous year of the fraud losses borne by card payment users	CDC2	49%	Difference between 2021 and 2022
V. Other payment instruments	Share of fraudulent credit transfer payments over total transfer payments (in terms of volume and value of total transactions)	OPI1	0.0026%	2022
			0.0006%	2022
	Change to previous year of the fraud losses borne by consumers (credit transfers)	OPI2	64%	Difference between 2021 and 2022
VI. Access to financial services	The percentage of people aged 15+ who have an account at a bank or another type of financial institution	AFS1	86%/89%/91%/92%	2011/2014/2017/2021
	The percentage of respondents aged 15+ who report having a debit or credit card	AFS2	74%/78%/84%/85%	2011/2014/2017/2021
	The percentage of respondents aged 15+ who report borrowing any money from family, relatives, or friends in the past year	AFS3	13%/16%/15%/15%	2011/2014/2017/2021

[115] The 11 indicators were selected by the EBA from an initial long list of 50 indicators, the suitability of each of which was assessed by the EBA against criteria such as measurability, data availability, data accuracy, implementation cost, geographical representativeness, and actionability.

[116] See the EBA Retail Risk Indicators.

Mortgage credits and other consumer loans

For mortgage credit and consumer loans, the EBA's RRIs capture the risks to consumers by measuring consumers' ability to repay their loans. Overall, respective indicators point to improvements in consumers' ability to repay loans, especially in Member States with the highest proportion of such loans. However, the data should be interpreted cautiously and seen in the wider context of the economic situation in a given Member State and the EU/EEA.

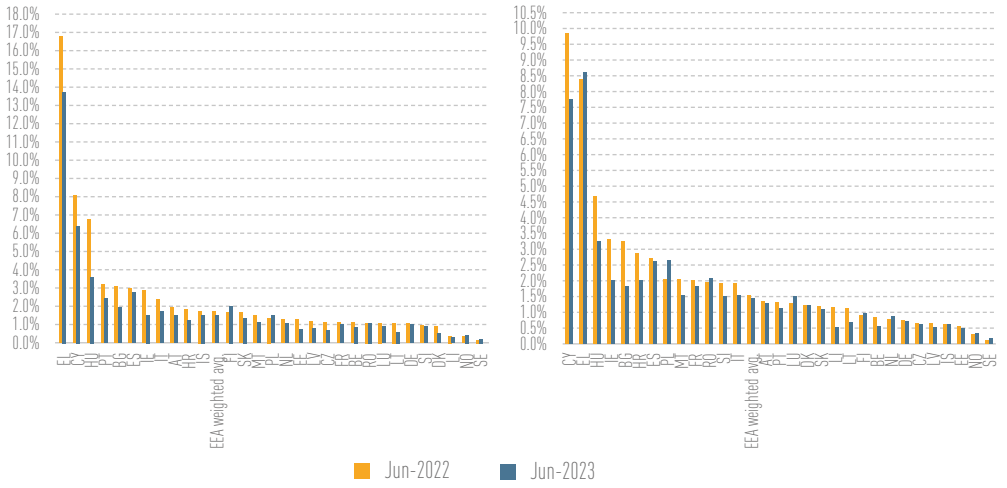
The share of loans with forbearance measures aims to also assess the access of consumers to forbearance measures. In general, a decrease of this ratio may indicate that consumers experience detriment because their access to forbearance measures is lower over time. Though it may also be the case that the indicator decreases because of the overall strength of the economy and fewer customers requiring forbearance measures, or transitioning from a period in which higher levels of forbearance measures were needed to one in which fewer measures are necessary.

Between June 2022 and June 2023, the share of household loans with forbearance measures over total household loans decreased from 1.7% to 1.5% across the EU/EEA. The fall was significant in Member States with comparatively high level of such loans – Greece, Cyprus, Hungary, as well as Bulgaria, and Ireland. The proportion of such loans increased in just four Member States (Finland, Poland, Norway and Sweden) and in all these cases the increases were not material.

The share of non-performing loans collateralised by residential immovable property aims to measure whether consumers face difficulties to make their mortgage payments. In general, a decrease of this ratio indicates that consumers' financial situation is improving. However, it may also be the case that over time the indicator could for instance decrease if banks change their business model and/or limit providing mortgage products to certain consumers, and/or dispose of such loans.

Between June 2022 and June 2023, the share of NPLs collateralised by immovable properties over all such loans remained largely stable at 1.5% across the EU/EEA. Among the Member States where the ratio decreased, the most significant falls were observed in Hungary, Ireland, Bulgaria, Lithuania, Belgium and Liechtenstein. The only countries where the proportion of such loans increased noticeably were Poland and Sweden (Figure 110).

Figure 110: Share of household loans with forbearance measures over total household loans (indicator MC1; left) and share of non-performing loans collateralised by residential immovable property over total loans collateralised by residential property (MC2; right), both indicators as of June 2022 and June 2023
Source: EBA supervisory reporting data



The share of non-performing consumer loans aims to proxy whether consumers face difficulties to repay their loans other than mortgages. In general, a decrease of this ratio indicates that consumers' financial situation is improving. However, it may also be the case that over time the indicator could decrease if banks change their business model and/or limit providing loans to certain consumers, and/or dispose of such loans.

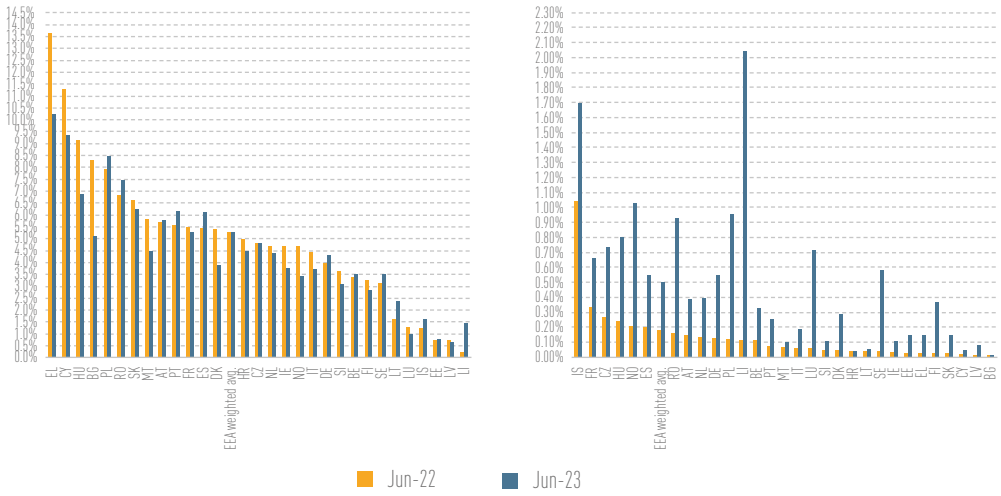
The share of NPLs from credits for consumption has remained largely stable between June 2022 to June 2023 at about 5.2%. The proportion of such NPLs decreased the most in Greece, Hungary, Bulgaria, Norway and Denmark, while increasing the most in Liechtenstein and Lithuania, albeit from among the lowest levels in the EU/EEA (Figure 111).

Payment and deposit accounts

For payment and deposit accounts, the EBA's RRIs capture the risks to consumers by measuring the profitability of holding deposits. The percentage of deposit interest expenses paid by banks to households over total household deposits measures the costs of holding deposits for banks, and in turn, the benefit to consumers. In general, a decrease of this ratio would mean that *ceteris paribus* holding deposits is less profitable for consumers. On the other hand, an increase would mean that *ceteris paribus* consumers are benefiting more from holding their deposits at a bank.

Between June 2022 and June 2023, the ratio increased from 0.2% to 0.5% indicating that deposits are more profitable for consumers. The increase was noticeable in most Member States, and particularly so in Liechtenstein and the Nordics (Figure 111).

Figure 111: Share of non-performing loans from credits for consumption over all loans from credits for consumption (OCL1; left) and percentage of deposit interest expenses paid by banks to households over total household deposits (PDA1; right), both indicators as of June 2022 and June 2023
Source: EBA supervisory reporting data



Payment services

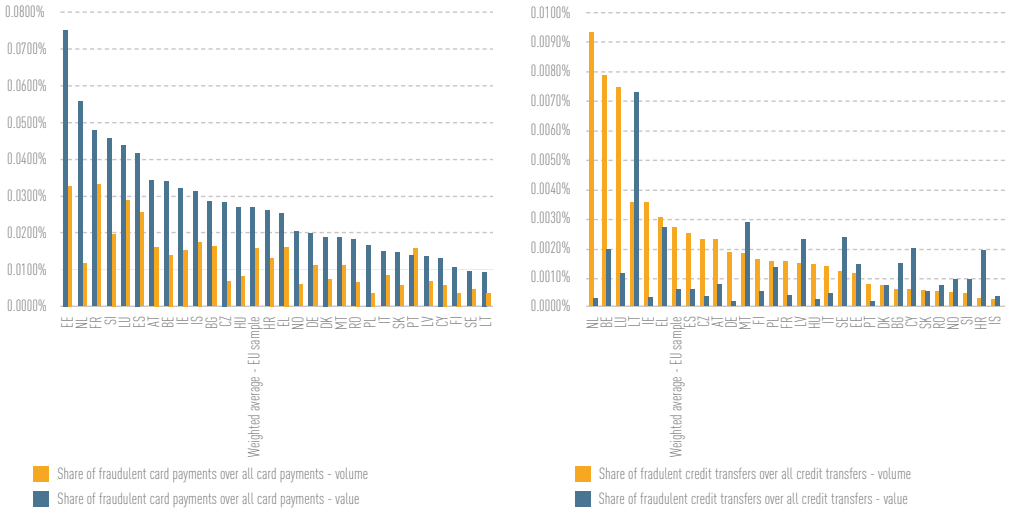
For payment services, some of the risks to consumers are captured by measuring the ratio of fraudulent payments and the losses borne by consumers as a result of fraud.[117] The share of fraudulent card payments aims to measure the share of fraudulent transactions in the total volume and value of card payments. An increase of this ratio would indicate that consumers are more exposed to fraud in the context of their card payments. In 2022, 0.015% of card payments in the EU/EEA were fraudulent and ranged from 0.03% in France and Estonia to close to zero in Poland, Lithuania, Finland and Sweden. The value of fraudulent card payments compared to the total value of card payments was 0.027% in the EU/EEA. In two Member States – Estonia and the Netherlands – the value of fraudulent payments exceeded 0.05%.

Another indicator considered is the share of fraudulent credit transfer transactions in the total volume of such payments. An increase of this ratio may indicate that consumers are more exposed to fraud in the context of their use of credit transfers.

[117] The figures presented here are elaborated from statistical data on fraud relating to different means of payment that, according to the provisions of Article 96 PSD2, are sent to the EBA and the ECB by the NCAs based on the fraud data reported by their respective providers of payment services (PSPs) – i.e. credit institutions, payment institutions and electronic money institutions.

In 2022, 0.026% of credit transfers in the EU/EEA were fraudulent and the proportion ranged from 0.009% in the Netherlands to close to zero in Iceland and Croatia. The value of fraudulent credit transfers as a proportion of the value of all such transfers was 0.0006% in the EU/EEA in 2022. Putting these two figures together, it becomes clear that in some Member States, while the volume is high, the value of such fraudulent transactions is low, while in others the value is significantly higher compared to the volume (Figure 112).

Figure 112: Share of fraudulent card payments over total card payments (CDC1) – value and volume – 2022 (left) and share of fraudulent payments over total payments (credit transfers) (OPI1) – value and volume – 2022 (right)
Source: EBA supervisory reporting data



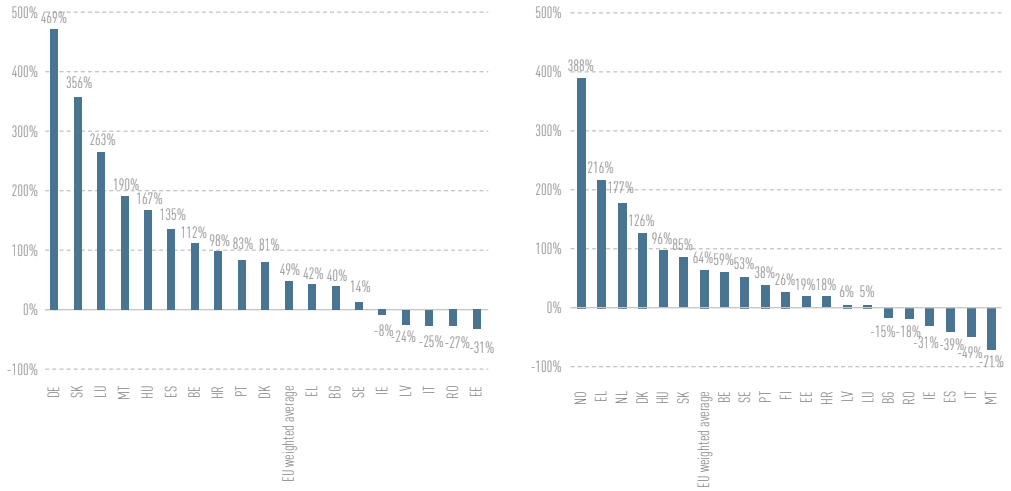
Furthermore, changes to the number of losses due to fraud that are borne by card payment services users are also monitored. A positive value of the indicator indicates an increase in losses to the consumer from one year to the next, while a negative value of the indicator indicates a decrease in losses to the consumers. However, the figure needs to be interpreted with caution because changes to the volumes of transactions impact the indicator. Moreover, in the case of a very limited aggregate value of the fraudulent transactions, this indicator is sensitive even to small variations, in absolute terms, in the losses borne by the card payment service users over the reference periods.

The absolute value of losses due to fraud borne by card payment services users increased by 49% from 2021 to 2022 in a sample of 18 Member States for which the EBA has data for both years. However, particularly for that indicator, the quality of the data requires further improvements and thus results should be interpreted carefully.

Data shows a potential increase during the past year in the amount of losses due to fraud that are borne by the users of credit transfers. A positive value of the indicator indicates an increase in losses to the consumers from one year to the next, while a negative value of the indicator would indicate a decrease in losses to the consumers. However, the figure needs to be interpreted with caution because significant changes to the volumes of transactions impact the indicator. Moreover, in the case of a very limited aggregate value of the fraudulent transactions, this indicator is sensitive even to small variations, in absolute terms, in the losses to the consumers over the reference periods.

Between 2021 and 2022, the absolute value of losses due to fraud borne by credit transfer users increased by 64% in a sample of 20 Member States for which the EBA has data for both years. However, particularly for that indicator, the quality of the data requires further improvements and thus results should be interpreted carefully (Figure 113).

Figure 113: Change to previous year of the fraud losses borne by card payment users (CDC2) – from 2021 to 2022 (left) and change to previous year of the fraud losses borne by consumers (credit transfers) (OPI2) – 2021 to 2022 (right)
Source: EBA payment fraud reporting data



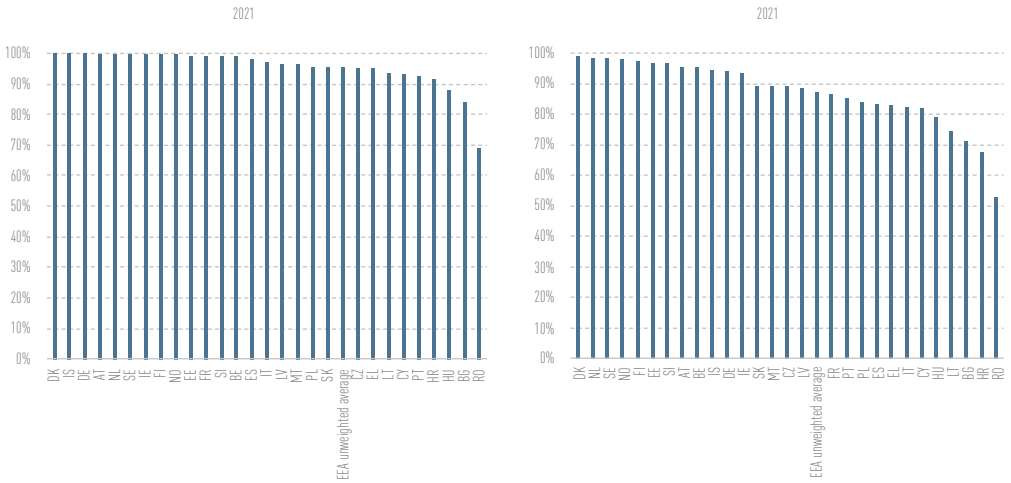
Access to financial services

Concerning access to financial services, the EBA RRIs include three indicators based on World Bank data – the percentage of people aged 15+ who have an account at a bank or another type of financial institution, those who report having a debit or credit card, and those who report borrowing any money from family, relatives or friends in the past year.

One indicator shows the percentage of people aged 15+ who report having an account at a bank or another type of financial institution or report personally using mobile money services in the past year. The higher the figure the higher the proportion of the adult population with access to the most basic financial service. The latest data available is for 2021 and shows that on average in the EU/EEA 96% of people had a bank account, with very close to 100% in more than half of EU/EEA states, and only Romania, Bulgaria and Hungary below 90%.

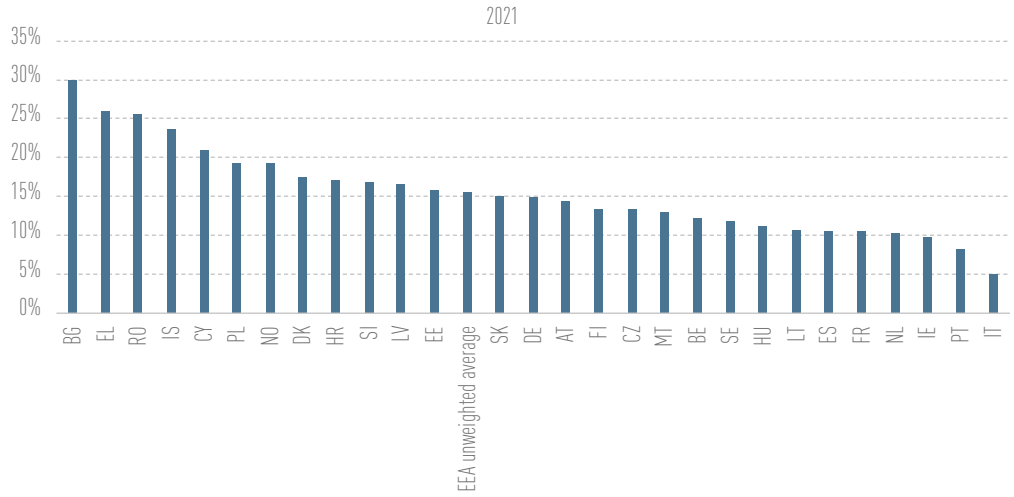
Another indicator is the percentage of people aged 15+ who report having a debit or a credit card. The higher the figure the higher the proportion of the adult population with access to such payment services. In 2021, on average 87% of people aged 15+ had a debit or credit card in EU/EEA Member States, with close to 100% in many states in the north of the EU/EEA, and figures below 70% in Romania and Croatia (Figure 114).

Figure 114: Percentage of people aged 15+ who have a bank account (AFS1) – 2021 (left) and percentage of people aged 15+ who have a debit or credit card (AFS2) – 2021 (right)
Source: World Bank



Finally, the percentage of people aged 15+ who report borrowing any money from family, relatives or friends in the past year is another RRI considered here. A higher figure may indicate that fewer people have access to loans from financial institutions, and thus, resort to borrowing from family, relatives or friends. A higher figure may also indicate that the costs of borrowing have increased, making it less affordable to use financial services. In 2021, on average 15% of people have borrowed money from family, relatives or friends across the EU/EEA, with more than 25% in Bulgaria, Greece and Romania, and less than 10% in Portugal and Italy (Figure 115).

Figure 115: Percentage of people aged 15+ who borrowed from family or friends (AFS3) – 2021
Source: World Bank



8. Policy implications and measures

Uncertainty around the macroeconomic environment outlook and geopolitical risks remain elevated. Current interest rate levels challenge economic growth, and as long as inflationary pressures persist monetary policy is not expected to loosen, yet the trajectory of interest rate levels remains highly uncertain. Economic growth is also challenged by high geopolitical risks. The US banking turmoil in March and the developments related to CS showed that banking is also based on trust and should such trust be impaired banks can suddenly be challenged, materialising through funding, liquidity and other risks. The March banking turmoil in the US also showed how only some banks, that are not considered systemically important, can negatively affect the worldwide banking sector. Banks and supervisors need to remain vigilant and flexible, to react quickly to a changing monetary and economic situation, to events challenging the banking sector as such and to geopolitical developments.

Slow loan growth can have long-term economic effects. Central banks' monetary policy tightening, to tackle inflationary pressures, has affected demand for loans. At the same time, banks are tightening their credit standards due to fading risk appetite as a response to macroeconomic uncertainty. Such developments may have long-term economic effects, as the economy is not adequately financed to support its growth. It is important that banks ensure credit is provided to the economy also in times of elevated uncertainty, adequately assessing and pricing risks when providing new financing.

There is a rising probability of a deterioration in credit risk. The broad expectation is that the increase in interest rates, along with inflationary pressures and stagnant economic growth, may affect asset quality negatively. The slow rise in past-due loans and the rise of NPL inflows over outflows gives an indication that asset quality improvement may have come to an end. Banks need to be alert and aware of the potential economic and other challenges in their evaluation of credit risk. It is equally vital to identify and deal with troubled borrowers and loans promptly, to ensure sufficient provisioning, including timely loss recognition and proactive measures such as forbearance.

Forbearance measures should be used prudently. To ease the effect of sudden interest rate hikes, especially on mortgage borrowers that are at risk, various specific support measures have been implemented. As in the pandemic, a rising number of countries have implemented moratoria or interest rate subsidies to deal with the consequences of rising rates or high inflation. These measures can be of a mandatory or a voluntary nature. They may involve limits on interest payments, breaks from payments, waiving of penalty fees for overdue loans and similar measures. Whenever any forbearance is used, banks must ensure that they still properly assess the credit risk of each borrower. Banks should look at each case individually and choose the most appropriate forbearance measures for each borrower.

Geopolitical tensions could adversely affect banks' business models. Such tensions have challenged some banks with a global presence or heightened exposures to non-EEA counterparties. Banks with such exposures have to be particularly vigilant in managing them, and to be flexible to react within the short term to unexpected developments, such as sanctions or measures that might, for instance, require a sudden reduction of specific exposures or even a withdrawal from a country.

Risks related to transactions from/to sanctioned jurisdictions or counterparties are among the most relevant ML/TF risks for banks, according to RAQ results. Sanctions that were put in place extensively as a response to Russia's aggression towards Ukraine need to be followed closely and implemented accurately, to avoid potential conduct or legal risks. Banks should also ensure that robust customer due diligence measures are in place to mitigate any potential misuse of banking services and transactions by facilitators of terrorist financing.

Banks are expected to continue their efforts to develop approaches to managing ESG risks with a view to integrating forward-looking information. As banks may be exposed to ESG risks through their respective counterparties and assets, it is important that they identify, assess, monitor and manage these risks. The development of methodologies to identify how and to what extent ESG risks translate into financial risks should remain a priority for banks. Particularly as historical information alone is not sufficient to capture climate-related financial risks, banks should complement the available information with forward-looking methodologies. The use of scenario analysis and transition plans can support banks in identifying the relative riskiness of sectors and assets under different climate-related pathways, as well as in assessing the alignment of counterparties with different transition scenarios.

Interest rate risk needs to be managed prudently. Comparatively substantive changes in the interest rate environment happened within a relatively short time. Such a development not only affects fair values of debt securities with either a direct impact on banks' P&L or equity or an indirect impact on unrealised losses for debt securities at amortised cost. It also affects the management of interest rate risk more generally, including hedging effectiveness. In an uncertain interest rate environment, the management of interest rate risk and sound hedging practices remain a key concern. These risks include the validity and realism of the parameters used in banks' models and scenarios to manage their interest rate risk and hedging. Banks also need to be prepared for a potential sudden decline in interest rates, in case of currently unforeseen events.

Deposit volume dynamics have become more important. For more than a decade, banks had access to rather stable funding through growing volumes of deposits. The sudden increase in interest rates has changed the landscape as customers are seeking higher remuneration for their deposits. The change in depositors' behaviour, along with technological advances in banking, may further facilitate movements in deposits. The social media effect and the impersonal use of internet banking have changed the traditional interaction and relation between depositors and banks. This was also proven during the US banking turmoil in March 2023, in which deposits moved unprecedentedly fast. Close monitoring of deposit flows is not only warranted, but banks and supervisors should explore new forward-looking ways to monitor and anticipate liquidity trends, including the subsequent following of social media interactions, and to apply measures to react to those. Banks and supervisors should also monitor deposit composition, ensuring that their funding from deposits is diverse and not overly exposed to particular counterparties or sectors. Looking further ahead, the potential introduction of CBDC, such as the digital euro, might additionally affect banks' deposit funding.

Banks aim to increasingly focus on deposit-based funding going forward. This might become challenging to attain for the banking sector while deposit volume growth is slowing down. It could presumably increase the pricing pressure on deposits, which will negatively affect banks' NIMs, especially for those overly reliant on deposit funding that have so far benefited from low deposit betas. In such an environment it remains particularly important that banks maintain a healthy funding mix, including their continued access to debt markets. Sustainable business models are also paramount for EU/EEA banks to remain competitive at a global scale.

Resolvability of institutions should be a priority. Loss-absorbing capacity is not the only factor that matters for resolvability and banks have to keep advancing on all aspects of resolvability. The March banking turmoil has demonstrated that loss-absorbing capacity may not be sufficient for resolvability. Banks and supervisors have to make sure they can facilitate the execution of the optimal resolution plan.

Financial market turmoil, geopolitical risks, terrorist attacks, pandemics and other unforeseen developments can suddenly negatively affect the banking sector or individual institutions. Banks need to be prepared for crisis events and should also have credible recovery plans in place that feasibly address such risks. Plans for crisis events and recovery plans have to be based on realistic assumptions and should be flexible enough to address unforeseen events, including worst-case scenarios of, for example, further armed conflicts and terrorist attacks. With regard to vulnerabilities from financial market turmoil and potential spill-over from other sectors, banks' NBFI interlinkages need to be monitored closely, including for instance step-in and similar risks.

Windfall taxes have been introduced in many EU/EEA jurisdictions. They have resulted in negative reactions on equity markets as they significantly increase uncertainty for investors in the banking sector. This may negatively affect banks' payout ratios, which also tend

to be affected by investors as well as banks' ability to raise capital. Windfall taxes should not compromise banks' long-run viability. The introduction of such measures should also consider whether some characteristics of the taxes imposed do not entail increased uncertainty for the banking sector.

ICT and cyber-related risks are unabatedly high and should remain a focus area of banks. They need to be prepared for any impact on their ICT systems as well as major cyber-attacks. The latter might not only affect their individual institutions but might be aimed at paralysing the banking or financial system as a whole. Banks also need plausible plans to be able to react to such events, including implications for their outsourcing providers. Banks should moreover prepare for the DORA implementation, and ensure they have appropriate resources, skills, capabilities and governance arrangements in place to address the challenges posed by ubiquitous use of ICT services. With regard to issuers of crypto-assets, financial institutions and other undertakings with asset-referenced or electronic money token activities are encouraged to prepare for the Markets in Crypto-assets Regulation (MiCAR) already prior to its application date.

Annex I: Samples of banks

List of banks that made up the sample population for the risk indicators, the transparency exercise and the RAQ: [118]

Name	Country	Risk indicators	2023 Transparency Exercise	RAQ 2023
BAWAG Group AG	Austria	X	X	X
Erste Group Bank AG	Austria	X	X	X
Raiffeisen Bank International AG	Austria	X	X	X
Raiffeisenbankengruppe OÖ Verbund eGen	Austria	X	X	
UniCredit Bank Austria AG	Austria	X		
Volksbanken Verbund	Austria	X	X	
Belfius Bank	Belgium	X	X	X
BNP Paribas Fortis	Belgium	X		
Crelan	Belgium	X	X	X
Dexia	Belgium	X	X*	
Euroclear	Belgium	X	X*	
Investeringsmaatschappij Argenta	Belgium	X	X	
KBC Groep	Belgium	X	X	X
The Bank of New York Mellon	Belgium	X	X	
DSK Bank AD	Bulgaria	X		X
First investment Bank AD	Bulgaria			X
UniCredit Bulbank AD	Bulgaria	X		
United Bulgarian Bank AD	Bulgaria	X		
Erste&Steiermärkische Bank d.d.	Croatia	X		
Privredna Banka Zagreb d.d.	Croatia	X		X
Zagrebačka banka d.d.	Croatia	X		X
Bank of Cyprus Holdings Public Limited Company	Cyprus	X	X	X
Eurobank Cyprus Ltd	Cyprus	X		
Hellenic Bank Public Company Ltd	Cyprus	X	X	X
The Cyprus Development Bank Public Company Ltd	Cyprus	X	X*	
Česká spořitelna, a.s.	Czechia	X		X
Československá obchodní banka, a.s.	Czechia	X		X
Komerční banka, a.s.	Czechia	X		X
Danske Bank A/S	Denmark	X	X	X
Jyske Bank A/S	Denmark	X	X	X
Nykredit Realkredit A/S	Denmark	X	X	X

[118] 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 2023 indicators. The list of reporting institutions are available on the EBA website.

AS LHV Group	Estonia	X	X	X
AS SEB Pank	Estonia	X		
Luminor Holding AS	Estonia	X	X	X
Swedbank AS	Estonia	X		
Kuntarahoitus Oyj	Finland	X	X	
Nordea Bank Abp	Finland	X	X	X
OP Osuuskunta	Finland	X	X	X
Banque centrale de compensation	France	X	X*	
BNP Paribas	France	X	X	X
BofA Securities Europe SA	France	X	X	
Bpifrance	France	X	X	
Confédération Nationale du Crédit Mutuel	France	X	X	X
Groupe BPCE	France	X	X	X
Groupe Crédit Agricole	France	X	X	X
HSBC Continental Europe	France	X	X	
La Banque Postale	France	X	X	X
RCI Banque	France	X	X	
SFIL S.A.	France	X	X	
Société générale S.A.	France	X	X	X
Atlantic Lux HoldCo S.à r.l.	Germany	X	X	
Bayerische Landesbank	Germany	X	X	X
Citigroup Global Markets Europe AG	Germany	X	X	
COMMERZBANK Aktiengesellschaft	Germany	X	X	X
DekaBank Deutsche Girozentrale	Germany	X	X	
DEUTSCHE APOTHEKER- UND ÄRZTEBANK EG	Germany	X	X	
DEUTSCHE BANK AKTIENGESELLSCHAFT	Germany	X	X	X
Deutsche Pfandbriefbank AG	Germany	X	X	
DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main	Germany	X	X	X
Erwerbsgesellschaft der S-Finanzgruppe mbH & Co. KG	Germany	X	X	
Goldman Sachs Bank Europe SE	Germany	X	X	
Hamburg Commercial Bank AG	Germany	X	X	
HASPA Finanzholding	Germany	X	X	
HSBC Trinkaus & Burkhardt GmbH	Germany	X		
J.P. Morgan SE	Germany	X	X	
Landesbank Baden-Württemberg	Germany	X	X	X
Landesbank Hessen-Thüringen Girozentrale	Germany	X	X	X
Morgan Stanley Europe Holding SE	Germany	X	X	
Münchener Hypothekenbank eG	Germany	X	X	
Norddeutsche Landesbank - Girozentrale -	Germany	X	X	X
State Street Europe Holdings Germany S.a.r.l. & Co. KG	Germany	X	X	
UBS Europe SE	Germany	X	X	
Volkswagen Bank Gesellschaft mit beschränkter Haftung	Germany	X	X	
Wüstenrot Bausparkasse Aktiengesellschaft	Germany	X	X	

ALPHA SERVICES AND HOLDINGS S.A.	Greece	X	X	X
Eurobank Ergasias Services and Holdings S.A.	Greece	X	X	X
National Bank of Greece, S.A.	Greece	X	X	X
Piraeus Financial Holdings	Greece	X	X	X
Kereskedelmi és Hitelbank csoport	Hungary	X		
MKB csoport	Hungary	X	X	X
OTP-csoport	Hungary	X	X	X
Arion banki hf.	Iceland	X	X	
Íslandsbanki hf.	Iceland	X	X	X
Landsbankinn hf.	Iceland	X	X	X
AIB Group plc	Ireland	X	X	X
Bank of America Europe Designated Activity Company	Ireland	X	X	
Bank of Ireland Group plc	Ireland	X	X	X
Barclays Bank Ireland plc	Ireland	X	X	
Citibank Holdings Ireland Limited	Ireland	X	X	X
Ulster Bank Ireland Designated Activity Company	Ireland	X	X*	
BANCA MEDIOLANUM S.P.A.	Italy	X	X	
Banca Monte dei Paschi di Siena S.p.A.	Italy	X	X	X
BANCA POPOLARE DI SONDRIO SOCIETA' PER AZIONI	Italy	X	X	
BANCO BPM SOCIETA' PER AZIONI	Italy	X	X	X
BPER Banca S.p.A.	Italy	X	X	X
Cassa Centrale Banca	Italy	X	X	
CREDITO EMILIANO HOLDING SOCIETA' PER AZIONI	Italy	X	X	
FINECOBANK SPA	Italy	X	X	
ICCREA BANCA SPA	Italy	X	X	X
Intesa Sanpaolo S.p.A.	Italy	X	X	X
Mediobanca - Banca di Credito Finanziario S.p.A.	Italy	X	X	
UNICREDIT, SOCIETA' PER AZIONI	Italy	X	X	X
Akciju sabiedriba "Citadele banka"	Latvia	X	X	
AS "SEB banka"	Latvia	X		X
Swedbank AS	Latvia	X		X
LGT Group Foundation	Liechtenstein	X	X	
Liechtensteinische Landesbank AG	Liechtenstein	X	X	
VP Bank AG	Liechtenstein	X	X*	
"Swedbank", AB	Lithuania	X		
AB SEB bankas	Lithuania	X		
Akcinė bendrovė Šiaulių bankas	Lithuania	X	X	X
Revolut Holdings Europe UAB	Lithuania	X	X	X
Banque et Caisse d´Epargne de l´Etat, Luxembourg	Luxembourg	X	X	X
Banque Internationale à Luxembourg	Luxembourg	X	X	X
BGL BNP Paribas	Luxembourg	X		
RBC Investor Services Bank S.A.	Luxembourg	X	X*	
Quintet Private Bank (Europe) S.A	Luxembourg	X	X	

Société Générale Luxembourg	Luxembourg	X		
Bank of Valletta Plc	Malta	X	X	X
HSBC Bank Malta p.l.c.	Malta	X		X
MDB Group Limited	Malta	X	X	
ABN AMRO Bank N.V.	Netherlands	X	X	X
BNG Bank N.V.	Netherlands	X	X	
Coöperatieve Rabobank U.A.	Netherlands	X	X	X
de Volksbank N.V.	Netherlands	X	X	X
ING Groep N.V.	Netherlands	X	X	X
LP Group B.V.	Netherlands	X		
Nederlandse Waterschapsbank N.V.	Netherlands	X	X	
DNB Bank ASA	Norway	X	X	X
SpareBank 1 SMN	Norway	X	X	
SPAREBANK 1 SR-BANK ASA	Norway	X	X	X
Bank Polska Kasa Opieki S.A.	Poland	X	X	X
Powszechna Kasa Oszczednosci Bank Polski S.A.	Poland	X	X	X
Santander Bank Polska S.A.	Poland	X		
Banco Comercial Português, SA	Portugal	X	X	X
Caixa Geral de Depósitos, SA	Portugal	X	X	X
LSF Nani Investments S.à r.l.	Portugal	X	X	
SANTANDER TOTTA, SGPS, SA	Portugal	X		
Banca Comerciala Romana SA	Romania	X		X
Banca Transilvania	Romania	X	X	X
BRD-Groupe Société Générale SA	Romania	X		
Slovenská sporiteľňa, a.s.	Slovakia	X		X
Tatra banka, a.s.	Slovakia	X		
Všeobecná úverová banka, a.s.	Slovakia	X		X
AGRI EUROPE CYPRUS LIMITED	Slovenia	X	X	
Nova KBM d.d.	Slovenia			X
Nova Ljubljanska Banka d.d., Ljubljana	Slovenia	X	X	X
OTP LUXEMBOURG S.A R.L.	Slovenia	X		
SKB BANKA D.D. LJUBLJANA	Slovenia	X		
Abanca Corporacion Bancaria, S.A.	Spain	X	X	
Banco Bilbao Vizcaya Argentaria, S.A.	Spain	X	X	X
Banco de Crédito Social Cooperativo	Spain	X	X	
Banco de Sabadell, S.A.	Spain	X	X	X
Banco Santander, S.A.	Spain	X	X	X
Bankinter, S.A.	Spain	X	X	X
Caixabank, 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	X
Aktiebolaget Svensk Exportkredit	Sweden	X	X*	

Kommuninvest - Grupp	Sweden	X	X	
Länsförsäkringar Bank AB - gruppen	Sweden	X	X	
SBAB Bank AB - Grupp	Sweden	X	X	
Skandinaviska Enskilda Banken - gruppen	Sweden	X	X	X
Svenska Handelsbanken - gruppen	Sweden	X	X	X
Swedbank - Grupp	Sweden	X	X	X

The banks marked (*) are included in the transparency exercise in the 'other banks' bucket

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.

DZ-AC-23-001-EN-C

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

Publications Office
of the European Union

ISBN 978-92-9245-869-0