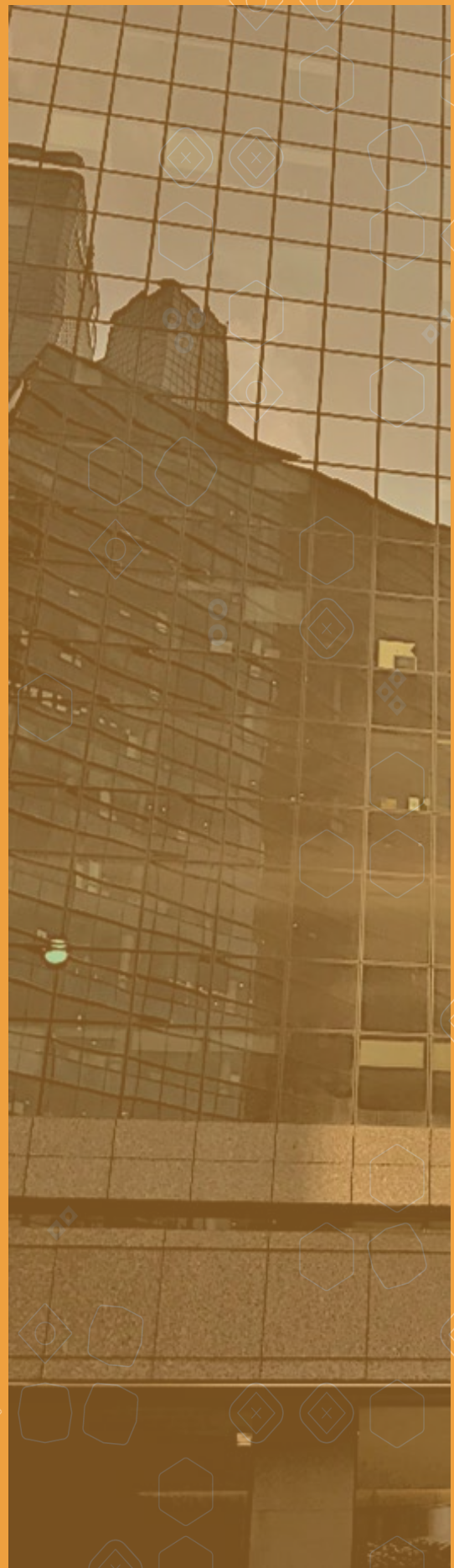


RISK ASSESSMENT REPORT OF THE EUROPEAN BANKING AUTHORITY

NOVEMBER 2024



This RAR was prepared by the Economic and Risk Analysis Department¹. The report has benefited from input and comments from other Departments across the EBA as well as from members of the EBA’s Supervision, Risks and Innovation Standing Committee (SUPRISC), Resolution Committee (ResCo), Standing Committee of Consumer Protection and Financial Innovation (SCConFin) and the EBA’s Board of Supervisors (BoS). Many thanks as well to the editors of this version of the RAR.

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Abbreviation

AI	Artificial Intelligence	Fintech	Financial technology
AML	Anti-money laundering	FSB	Financial Stability Board
ASF	Available Stable Funding	FS-ISAC	Financial Services Information Sharing and Analysis Centre
ASW	Asset swap spread	GAR	Green asset ratio
AT1	Additional Tier 1	GDP	Gross domestic product
BCP	Business continuity planning	GPAI	General-purpose AI
BIS	Bank for International Settlements	GPR	Geopolitical risk
bps	Basis points	G-SIIs	Global Systemically Important Institutions
CAPM	Capital asset pricing model	HFT	Held for trading
CBDC	Central bank digital currencies	HNWI	High-net-worth individual
CBR	Combined buffer requirement	HoldCo	Holding company
CCyB	Countercyclical capital buffer	HQLA	High-quality liquid assets
CDD	Customer due diligence	ICT	Information and communication technology
CEE	Central Eastern European	IFRS	International Financial Reporting Standard
CET1	Common Equity Tier 1	IT	Information technology
CFT	Countering the financing of terrorism	LCR	Liquidity coverage ratio
CIR	Cost-to-income ratio	LGD	Loss given default
CoE	Cost of equity	LTRO	Long term refinancing operations
COREP	Common Reporting	LTV	Loan-to-value
CRD	Capital Requirements Directive	M&A	Merges and acquisitions
CRE	Commercial real estate	ML	Money laundering
CRR	Capital Requirements Regulation	MREL	Minimum requirement for own funds and eligible liabilities
CVA	Credit valuation adjustment	MRO	Main refinancing operations
DDoS	Distributed denial of service	MRR	Minimum reserve requirements
DLT	Distributed ledger technology	NBFI	Non-bank financial intermediaries
DORA	Digital Operational Resilience Act	NFC	Non-financial corporation
EBA	European Banking Authority	NFCI	Net fee and commission income
ECB	European Central Bank	NII	Net interest income
EEA	European Economic Area	NIM	Net interest margin
ENISA	European Union Agency for Cybersecurity	NPL	Non-performing loan
ESAs	European Supervisory Authorities	NPS	Non-preferred senior
ESG	Environmental, social and governance	NSFR	Net stable funding ratio
ESRB	European Systemic Risk Board	NTI	Net trading income
EU	European Union	NYCB	New York Community Bancorp, Inc.
EU-SCICF	EU Systemic Cyber Incident Coordination Framework	OCI	Other comprehensive income
EuReCA	European Reporting System for material CFT/AML weaknesses	OCR	Overall capital requirement
FDIC	Federal Deposit Insurance Corporation	PoC	Proof-of-Concepts
FINREP	Financial reporting	PtB	Price to book
		P&L	Profit and loss

p.p.	Percentage points	SX7E	EuroStoxx Banks Index
P2G	Pillar 2 Guidance	S5BANKX	S&P US Banks Index
QoQ	Quarter-on-quarter	T2	Tier 2 capital
RAG	Retrieval-augmented generation	TF	Terrorist financing
RAQ	Risk assessment questionnaire	TLAC	Total loss absorbing capacity
RAR	Risk assessment report	TLTRO	Targeted longer-term refinancing operation
RoA	Return on assets	TT	Top tier
RoB	Run on brown	TTP	Tactics, techniques, and procedures
RoE	Return on equity	UAE	United Arab Emirates
RRE	Residential real estate	UK	United Kingdom
RRI	Retail risk indicator	US	United States
RSF	Required stable funding	VIX	Volatility index
RWA	Risk-weighted asset	YE	Year end
SCA	Strong customer authentication	YtD	Year to date
SEO	Search engine optimisation	YoY	Year-on-year
SME	Small and medium-sized enterprise		
SVB	Silicon Valley Bank		

Executive summary

Europe's macroeconomic landscape is marked by gradual, albeit slow economic growth and low unemployment rate. Inflation rates have retreated across the EU, yet in many jurisdictions they are still above their central banks' targets. Nevertheless, the region continues to be exposed to possible setbacks due to growing uncertainties from geopolitical tensions and worries about persistently slow economic growth and increasing market volatility. The recent stabilisation in real estate market prices has sustained valuations, although potential downside risks for the sector remain.

Geopolitical risks can negatively impact both financial markets and the real economy. EU/EEA banks' direct exposures to geopolitically high-risk countries exceeded EUR 500bn as of June 2024, representing around 2.5% of their total exposures. They may also be exposed to second-round effects through their exposures towards those sectors affected by geopolitical risks. Beyond the potential impact on credit risk, geopolitical risks can also manifest for banks in the forms of market, liquidity, operational and other risks. These risks can be exacerbated by political developments which can also create a risk-averse environment. This can lead to decreased growth potentials, lower investment and market volatility, and ultimately affect banks' asset quality, capital, liquidity and profitability.

The linkages between banks and NBFIs can present vulnerabilities during periods of financial instability. As of June 2024, EU/EEA banks' exposures to NBFIs represented 9.8% of their total assets, predominantly concentrated in larger banks. The tendency of NBFIs to participate in higher-risk lending and adopt more relaxed underwriting standards may result in greater fluctuations in asset quality. Additionally, all financial intermediation channels can be exposed to unforeseen linkages and shared asset holdings. Were banks' liquidity facilities for NBFIs to be abruptly activated, or banks required to bring failing off-balance sheet entities onto their own balance sheets, it could adversely impact the banks' capital and liquidity ratios.

Banks within the EU/EEA expanded their asset base on a yearly basis, reporting total assets amounting to EUR 27.9 tn, which corresponds to a 1.2% growth for the year leading up to June 2024. This growth was primarily driven by a 2.4% increase in loans and advances, a 9.3% rise in debt securities, and a significant 37.6% surge in equity holdings. The change in equity holdings was driven by a small number of banks. These increases were partially offset by a decline in cash balances due to further repayments of the ECB's TLTRO facilities and lower derivative exposures. Despite the reduction in cash balances, banks still reported EUR 3.3 tn in cash balances, contributing to robust liquidity ratios.

Lending to NFCs showed a modest recovery, with loans to SMEs and CREs increasing by 0.6% and 1.9% YoY, respectively. Growth of loans to NFCs is still affected by the level of interest rates and weak fixed investment. The CRE sector saw a notable increase in loans, driven by restructuring support for existing customers rather than new lending. Loans to households also showed slight growth, with a 0.9% YoY increase, largely due to improved conditions in the housing market and consumer confidence.

Asset quality showed a slight decline. NPLs increased by 3.4% to EUR 373 bn, accounting for 1.9% of total loans. Inflows of NPLs were primarily driven by defaults in the NFC sector, particularly among SMEs and loans collateralised by CREs. NPLs from credit for consumption increased to 5.4% from 5.2%, and NPLs collateralised by residential real estate remained stable at 1.5%. Banks anticipate a general decline in asset quality over the next 6 to 12 months, particularly in the consumer credit, SME, and CRE sectors.

Banks' liabilities rose by 1%, mainly due to increased debt issuances and customer deposits. Despite market volatility, banks remained active in primary funding markets, although issuance volumes were lower for the first three quarters of 2024 compared to same period last year. Customer deposits remain the primary funding source for EU/EEA banks, while central bank funding has decreased substantially, lowering the asset encumbrance ratio. Most banks target retail deposits as main funding source for the next quarters. A large share of banks also expects stable spreads for most market-based funding instruments and anticipates lower funding costs due to interest rate cuts. The 'greenium' on specific bank-issued debt differed across various debt types, with covered bonds having a rather small but stable 'greenium' whereas senior-preferred bonds show a higher but more volatile behaviour.

Majority of resolution banks meet their MREL, roll-over needs appear manageable. These banks must issue eligible instruments to meet MREL requirements. As of 30 June 2024, all banks met these requirements, however, 24 banks with a longer transition period had a combined shortfall of EUR 6.1bn. In addition to this outstanding shortfall, there is upcoming funding need, as in order for banks to sustain their current MREL levels, they will need to roll-over around EUR 220 bn in MREL instruments other than own funds by June 2025 – which appear manageable.

As of June 2024, EU banks maintained high liquidity levels, although liquidity positions have decreased since the beginning of the year. The decline was partly due to repayments of the ECB's TLTRO in the first half of 2024, as well as higher market volatility which drove LCRs lower. Despite these challenges, banks managed to maintain their liquidity buffers by increasing their holdings of government assets and Level 1 covered bonds which compensated for the reduction in cash and central bank balances. As a result, key liquidity indicators were reported at robust levels. The LCR stood at 163.2% (down from 168.3% in December 2023) and the NSFR at 127.6% (127.1% in December 2023).

EU banks have maintained strong capital positions. The CET1 capital ratio rose by 12 basis points to an all-time high of 16.1%, driven by accumulation of CET1 capital, which outpaced the growth in RWAs. The growth in CET1 capital, which now stands at EUR 1.57 tn, was supported by rising retained earnings, while RWAs increased by 3% over the last year to EUR 9.8 tn. Additionally, the leverage ratio was reported higher by 11 basis points to 5.8%, reflecting capital generation outpacing asset growth. Despite these positive trends, the CET1 headroom above overall capital requirements and P2G declined slightly by 26 basis points, standing at a still comfortable level of 466 basis points as of Q2 2024.

This increase in RWAs was mainly due to credit risk, which rose by EUR 240 bn or 3%, while operational risk and market risk also saw increases of 8% and 1%, respectively. The rise in credit

risk RWAs was driven by higher exposures to corporates and institutions, and a shift towards higher risk profiles for the corporate and retail exposure classes. The average risk weight density for banks' total credit risk portfolio increased by 67 basis points to 28.1% in June 2024. Despite these challenges, EU banks have managed to maintain strong capital buffers and high profitability, enabling them to distribute record dividend payouts and share buybacks.

EU/EEA banks' net profits remained close to their all-time highs, with RoE reaching 10.9% as of Q2 2024. The growth of NII decelerated due to the stabilisation in the interest rate environment, which is now followed by central banks' interest rate cuts. Although banks' expenses rose, they did so at a pace slower than the average inflation rate. Despite maintaining double-digit RoE levels, a substantial number of EU/EEA banks currently fail to cover their CoE, and their market valuations remain below their book values.

Bank sector M&A activity has remained subdued. Data also indicates that cross-border transactions are less attractive than domestic ones. This might to a certain degree also be affected by the fact that cross-border universal banks tend to have higher cost levels compared to banks with other business models. The profitability, and similarly valuation of EU/EEA banks lags behind that of their US counterparts. An analysis of the differences in profitability between EU and US banks indicates differences in their revenues as a main driver. Among various contributing factors, one reason for the higher valuation of US banks could be their generally higher profitability.

The transition to a more sustainable economy has led to an elevated demand and supply of sustainable products. The picture, however, on banks' green exposures is mixed and incomplete. Insights from Pillar 3 ESG data reveal that the taxonomy alignment of EU banks' overall banking book remains modest as of December 2023. Both single asset classes, such as NFC and household GAR, and total GARs are low, with most banks reporting total GARs below 2%. The EU average weighted total GAR was below 3% at the end of 2023.

This shift to more use of sustainable products has also increased the risk of greenwashing. This can undermine investor confidence and necessary investments. Greenwashing can generate reputational and financial risks for institutions, including through litigation processes, and can affect the overall credibility of sustainable finance markets. Greenwashing risk materialises mostly through reputational and operational risks.

Analysing the effects of climate risk on financial entities is crucial. With increasing frequency and severity of climate events, financial institutions must anticipate, prepare for, and mitigate these risks to ensure long-term viability. The results of the 'Fit-For-55' climate scenario analysis, run jointly by the EBA, the ECB and other ESAs, show that in the near term, transition risks alone, modelled as a 'run on brown', are unlikely to threaten financial stability. Yet, if such a scenario is coupled with unfavourable economic conditions, losses for the financial system increase significantly and could potentially hamper the financing of the green transition.

The EU banking sector is facing a significant rise in operational risk. This is not least reflected in operational risk capital requirements which now account for 10.2% of total requirements, up from 9.7% in June 2023. The scope of operational risk includes conduct-related risks such as business conduct risk and financial crime, including AML and TF wealth. Technological advancements and

digitalisation have heightened the importance of operational resilience. Cyber and ICT risks have grown further with a notable escalation in cyber threats and attacks in the latter part of 2023 and the first half of 2024 during a time of rising geopolitical tensions. Cyber incidents have set new benchmarks in both the variety and number, as well as their consequences. A surge in mobile banking trojans was observed in 2024, and the banking sector was among most targeted sectors for DDoS attacks.

Fraud risk has become a major operational risk driver, nearly as significant as conduct and legal risks. The growing use of digitalisation and technological innovation, including AI, has contributed to the increasing risk of fraud. Payment fraud and fraud involving theft or breach of customer credentials are the main drivers of this risk, though the proportion of such fraudulent activities differs significantly across Member States. Additionally, outsourcing risks have risen as banks increased their reliance on third-party services. The number of operational risk loss events reported by EU banks in 2023 was high, with total materialised losses from new operational risk events reaching EUR 17.5 bn, a 27% increase compared to the previous year. This highlights the need for banks to continue strengthening their operational risk management and resilience capabilities.

AI integration in the EU banking industry is advancing, enhancing efficiency in areas such as customer segmentation and the detection of illicit activities. The adoption of AI and GPAI in banking brings risks that require careful management. GPAI models are complex and opaque, often generating misleading 'hallucinations' and introducing ICT risks, including data privacy and cybersecurity concerns due to reliance on third-party models. GPAI also relies on extensive datasets that may lack quality, while unclear data collection practices by GPAI model developers can complicate data governance by banks.

Introduction

This report describes the main developments and trends in the EU/EEA banking sector and provides the EBA outlook on the related main risks and vulnerabilities². The RAR is based on qualitative and quantitative information collected by the EBA. The report's key data sources are the following:

- EU/EEA supervisory reporting³;
- the EBA RAQ addressed to banks;
- market intelligence as well as qualitative micro prudential information.

This report follows the common structure of the EBA's RARs. It is furthermore complemented by two focus topics, covering AI developments and relevant risks for the banking sector, and retail risk indicators. The RAR builds on the supervisory reporting data that competent authorities submit to the EBA on a quarterly basis for a sample of 162 banks from 30 EEA countries (130 banks at the highest EU/EEA level of consolidation from 26 countries⁴). Based on total assets, the sample covers more than 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 sample⁵. 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 data related to MREL in this report is based on reporting on MREL and TLAC, which covers a sample of 339 resolution entities or groups⁶. In selected cases, some of the analysis covered in this RAR is based on data from other reporting and data submissions, such as the EBA's EuReCA⁷.

² 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.

³ See the [EBA's information on supervisory reporting](#).

⁴ Data as of the reporting date 31 June 2024. Supervisory reporting includes, for instance, prudential reporting (COREP), FINREP. It needs to be noted that there are partially certain differences between reporting samples (on the sample of reporting banks see Annex I) and reporting requirements, such as in the level of consolidation.

⁵ 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 and therefore changes in risk indicators for country-level aggregates must be read with caution.

⁶ Number of banks for which the EBA has received both an MREL decision and MREL resources.

⁷ The [EBA's EuReCA](#) is a central database that puts together information submitted by competent authorities on serious deficiencies in individual financial institutions' systems and controls that expose these institutions to ML/TF risk. Data refers to all sectors within the remit of the EBA's AML/CFT mandate, namely: credit institutions, payment institutions, e-money institutions, bureaux de change, investment firms, fund managers, credit providers (other than credit institutions), life insurance undertakings and life insurance intermediaries, and an additional category of 'others'.

The RAQ is conducted by the EBA on a semi-annual basis⁸. Answers to the questionnaires were provided by 85 European banks (Annex I) during August and September 2024. 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 15 October 2024, unless otherwise indicated.

Along with the RAR, the EBA is disclosing bank-by-bank data as part of the 2024 EU-wide transparency exercise for four reference dates (September 2023, December 2023, March 2024 and June 2024). 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 CRD. The sample in the 2024 transparency exercise includes 123 banks from 26 countries at the highest level of consolidation in the EU/EEA as of June 2024⁹. The EU-wide transparency exercise relies entirely on COREP / FINREP data.

⁸ The results of the RAQ are also published separately, on a semi-annual basis. These published RAQ booklets ([see results of RAQ autumn 2024 here](#)) which also include explanations of the questionnaire and the analysis of the RAQ responses.

⁹ 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.

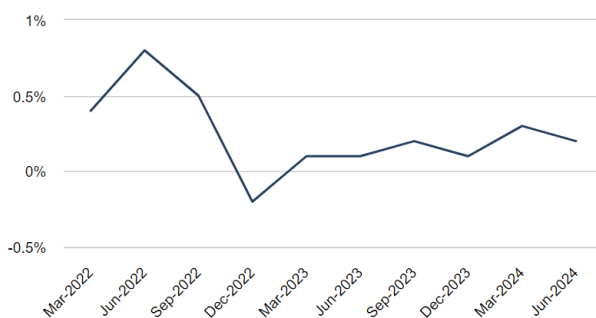
1. Macroeconomic environment and market sentiment

The macroeconomic landscape shows signs of improvement, though uncertainties and tail risks remain

In the beginning of 2024, the macroeconomic environment in Europe showed signs of improvement with a gradual increase in economic activity and central banks successfully tempering inflation. Nevertheless, the region remains vulnerable to potential downturns in global economy due to escalating uncertainties stemming from geopolitical tensions, concerns about economic growth in the US and downside risks from property sector adjustments in the Chinese economy. These factors might not only disrupt supply chains but could also impede global trade developments and have overarching impacts on EU/EEA banks (see Box 1).

Economic activity in the EU has gradually rebounded after subdued levels in 2023. During the first half of 2024, activity showed slight improvement, but growth rates of 0.3% in Q1 and 0.2% in Q2¹⁰ (Figure 1) remained slow. Economic growth, however, is not uniform across European Member States. Indeed, some countries are experiencing minimal growth, while a few even recorded slightly negative growth rates.

Figure 1: EU GDP growth rate QoQ, seasonally adjusted (%)



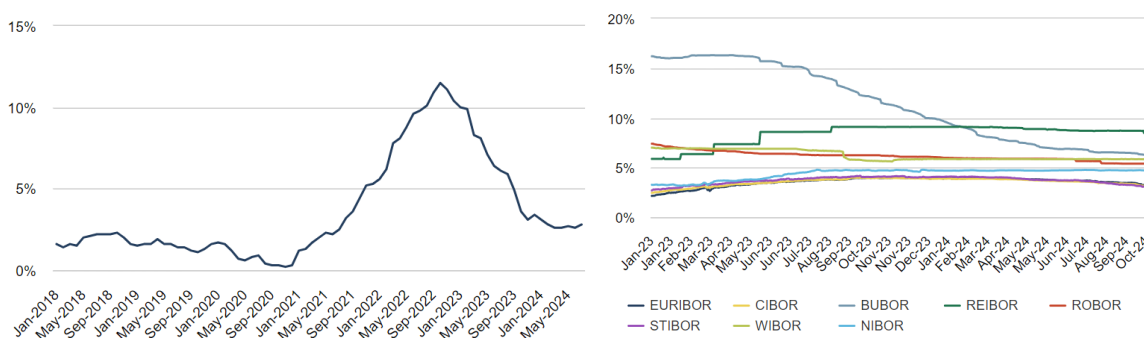
Source: Eurostat

Following a substantial tightening of monetary policies by central banks across Europe, inflation pressures have significantly eased, from the average inflation rate of 6.4% in 2023. For example, in the first half of the year, the EU saw an average inflation rate of 2.6%. Although inflation rates are still above target levels in many jurisdictions, the ECB has already implemented three interest rate reductions, in June, September and October 2024, and several other central banks have also eased their monetary policies. Interest rates are a crucial tool for central banks to steer economic activity, affecting factors such as inflation, consumer spending, and overall economic growth. For banks,

¹⁰ EU Commissions' spring 2024 forecasts suggests that GDP growth will reach approximately 1% in 2024 and 1.6% in 2025 (0.8% and 1.4% for euro area respectively). [Spring 2024 Economic Forecast: A gradual expansion amid high geopolitical risks](#)

interest rates are key in determining their profitability, lending capacity, and financial health (see Chapters 2, 5 and 6). Although for several currencies interest rate market rates remain at elevated levels, the stabilisation of the interest rate environment provides a more predictable operating setting for both borrowers and banks (Figure 2).

Figure 2: EU average inflation rate (left) and 3-month interbank rates of selected European currencies¹¹ (right) (%)



Source: Eurostat, Refinitiv, Central Bank of Iceland, National Bank of Romania

The low unemployment rates have also provided a benign macroeconomic landscape for banks in the European Union. The EU's unemployment rate has remained steady at 5.8% during the first half of the year and is anticipated to maintain this level, according to the EU Commission Spring Economic Forecast. In addition, even though wages and employment are increasing at a more gradual rate, they continue to enhance disposable income growth and revive consumer confidence while supporting banks' asset quality (see Chapter 2.2).

Box 1: Geopolitical landscape increases risks for the banking sector

Banks within the EU/EEA have reported nearly EUR 5 tn¹² in exposures to counterparties located outside the EEA, which is 23.4% of their total exposures. Over the past year, these exposures increased significantly by more than EUR 350 bn (7.9%). A substantial portion of this growth was driven by increased exposures to counterparties based in the United States (EUR 1.3 tn in June 2024, an 11.8% YoY increase). The United States remains the largest non-EEA counterparty for the EU banking sector, followed by the United Kingdom (EUR 900 bn). Exposures to emerging markets also rose and equalled those of the UK.

Geopolitical tensions have intensified globally over the past few years amid deteriorating diplomatic relations between the United States and China, Russia's invasion of Ukraine and war in the Middle East, and further conflicts around the globe. Although exposures to these regions are not negligible, they only account for a fraction of total exposures of the EU/EEA banking sector. Banks have almost EUR 225 bn in exposures to Middle Eastern countries, with Turkey and the UAE alone representing nearly EUR 100 bn and over EUR 45 bn, respectively. Exposures to nations directly affected by the conflict in the Middle East are limited to under EUR 10 bn, mostly towards

¹¹EURIBOR (Euro Interbank Offered Rate), CIBOR (Copenhagen Interbank Offered Rate), BUBOR (Budapest Interbank Offered Rate), REIBOR (Reykjavík interbank offered rate), ROBOR (Romanian Interbank Offered Rate), STIBOR (Stockholm Interbank Offered Rate), WIBOR (Warsaw Interbank Offered Rate), NIBOR (Norwegian interbank offered rate)

¹² Exposures includes debt securities and loans and advances

Israeli counterparties (EUR 7 bn). Chinese counterparties account for about EUR 80 bn, while Taiwanese exposures are around EUR 18 bn. Exposures to entities in Russia, Ukraine, and Belarus are below EUR 45 bn.

Threat from terrorism is also widely elevated level, and there are increasing risks of rising trade barriers and the introduction of new tariffs. Geopolitical risks can adversely affect both the financial markets and the real economy, as well as the linkages between the two, representing a threat to financial stability. On the financial side, an increase in geopolitical risks can lead to restrictions on capital flows and payments or increased investors' risk aversion, thereby affecting cross-border capital allocation and asset prices. This can result in heightened volatility in financial markets. On the real economy side, an increase in geopolitical risks can lead to restrictions on the import/export of goods and services or disruptions to supply chains, thereby affecting international trade and economic growth, and generating inflationary pressures. The interconnections between the two channels can potentially give rise to a detrimental feedback loop between the real economy and the financial channel, thus amplifying the overall impact of geopolitical risk on financial stability¹³.

Geopolitical risks may also amplify existing vulnerabilities leading to situations of severe distress. These risks may have a direct and indirect impact on the EU/EEA banking sector, as counterparties of EU/EEA banks are spread across over 220 countries and have exposures to sectors potentially vulnerable to geopolitical risks. The direct impact could result from heightened credit risk associated with exposures to counterparties located in countries experiencing increased geopolitical risk. Additionally, there may be indirect effects arising from supply chain disruptions caused by geopolitical tensions and reduced demand for European products due to imposed tariffs.

The latter can be a result of political developments regarding trade policies, including tariffs, trade agreements and import/export regulations. Protectionist policies might affect international trade flows, corporate earnings and overall market sentiment. In broad, political uncertainty can create a risk-averse environment, leading to decreased investment and market activity, potentially prompting investors to seek 'safer assets', leading to capital flight and reduced market liquidity. Prolonged political instability can hamper economic growth, affecting not only corporate profits, but market performance too. Political uncertainty can manifest itself through governmental instability, for instance where frequent elections resulting from hung parliaments might lead to significant policy changes, or rising threat from so-called populist parties and / or politicians. These shifts can impact market expectations and investor behaviour.

These factors could negatively influence the performance of the banking sector, affecting lending volumes and practices, risk management and capital requirements. They can also increase operational costs for banks, potentially reducing profitability. Market, liquidity, and operational risks can also be impacted, for instance, during financial market turmoil, increasing margin call demands, and interconnectedness between banks and sovereigns. Potential impacts may also involve employees, offices, branches, and systems being affected by an escalating conflict or

¹³ See also "[Turbulent times: geopolitical risk and its impact on euro area financial stability](#)" in the [ECB's Financial Stability review](#), May 2024.

terrorist attack. Other associated risks encompass increasing ICT and cyber¹⁴ threats, which may involve potential complications with third-party providers, for example. The emergence of geopolitical risks can lead banks to face increasing legal and AML risks, alongside dealing with fresh sanctions and related measures that increase operational risks. These challenges also extend to correspondent banking and impact internal frameworks and processes such as prudential and accounting models, as well as valuation procedures. Banks must be adequately prepared to manage these risks.

EU/EEA banks show notable exposure to some vulnerable geopolitical risks sectors, but only limited direct exposures to vulnerable countries

The following analysis primarily addresses the aspect of credit risk, evaluating vulnerability via direct as well as – to the degree possible – certain indirect effects. An essential phase of this assessment involved identifying countries and the business sectors potentially most susceptible to geopolitical risk.

The identification of the most vulnerable countries was based on country risk scores¹⁵. In concrete, S&P Capital IQ's country risk scores were used. The score considers political, economic, legal, tax, operational and security risks that arise from doing business with or in a specific country. The scale ranges from '1' (very low risk) to '10' (extreme risk). For the purpose of the analysis, all countries classified at least as 'high risk', i.e. those with an overall country risk score of 2.4 or above, were considered. This resulted in the selection of 82 countries, of which 10 were identified as severe-risk countries with an overall risk indicator of at least 4.4.

EU/EEA banks' direct exposures to these geopolitically high-risk countries exceeded EUR 500 bn as of June 2024, representing around 2.5% of the total exposures of EU/EEA banks. A significant concentration of these exposures was found in Spanish banks through their subsidiary operations in Mexico and Turkey (around EUR 220 bn and EUR 57 bn), though notable exposures to higher geopolitical risk countries are present throughout several banks in Europe, albeit with a great degree of heterogeneity. In most EU/EEA countries, banks reported direct exposure to countries vulnerable to geopolitical risks of less than 4% of their total exposures. While countries such as Spain, Hungary and Croatia have slightly more such significant exposures, it was nevertheless less than 11% of their total exposures (Figure 3).

The identification of the most vulnerable business sectors was based on the simple correlation between the equity performance of relevant sectors, as indicated by selected Euro Stoxx sectoral equity indices, and the GPR Daily Index, considering a time horizon of 3 years, from mid-September 2021 to mid-September 2024¹⁶. For the analysis, the five sectors that exhibited the highest negative

¹⁴ [According to the Financial Stability Board \(FSB\)](#), cyber risk is defined as the combination of the probability of cyber incidents occurring and their impact.

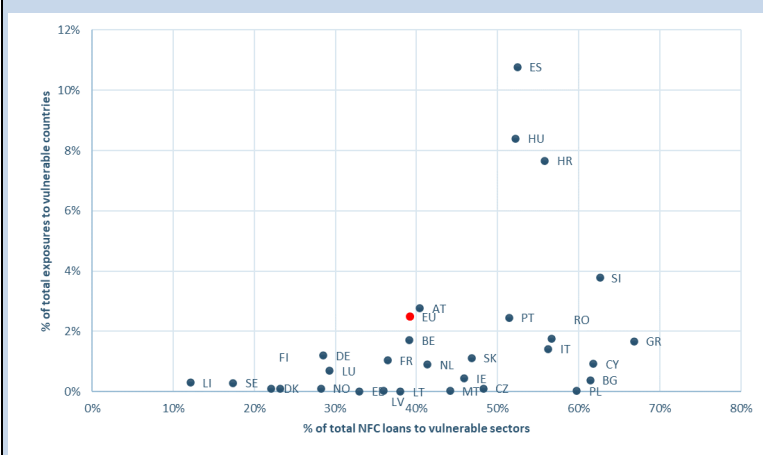
¹⁵ S&P Capital IQ's definitions for country risks scores.

¹⁶ The analysis involved the use of selected Stoxx Europe sectoral equity indices that were considered to be illustrative for profitability trends in the business sectors, classified according to NACE Rev. 2 sections, to which EU/EEA banks have exposures. It was not possible with the GPR Index to assess the correlation of all sectors to which banks have exposures, due to the lack of sufficiently representative or well capitalised indices. Moreover, it should be noted that even the selected indices are subject to idiosyncratic risks, which precludes their consideration as fully representative.

correlation with the GPR Index were selected and assumed to be those facing particularly elevated vulnerabilities relating to rising geopolitical risks. The findings of the analysis showed that businesses related to accommodation and food service activities, transport and storage, information and communication, trade, and manufacturing were the most negatively correlated. Businesses concerning human health services and social work activities as well as construction showed an intermediate correlation.

On average, the proportion of banks' exposures to business sectors susceptible to geopolitical risks was around 40% of total NFC loans for EU/EEA banks, with notable variability. For several jurisdictions, more than half of total loans to NFCs concerned businesses operating in vulnerable sectors. This percentage increased further exceeding 60% for Greece, Slovenia, Cyprus and Bulgaria (Figure 3).

Figure 3: Percentage of total exposures towards countries and sectors vulnerable to geopolitical risks, by country, Jun2024 (%)

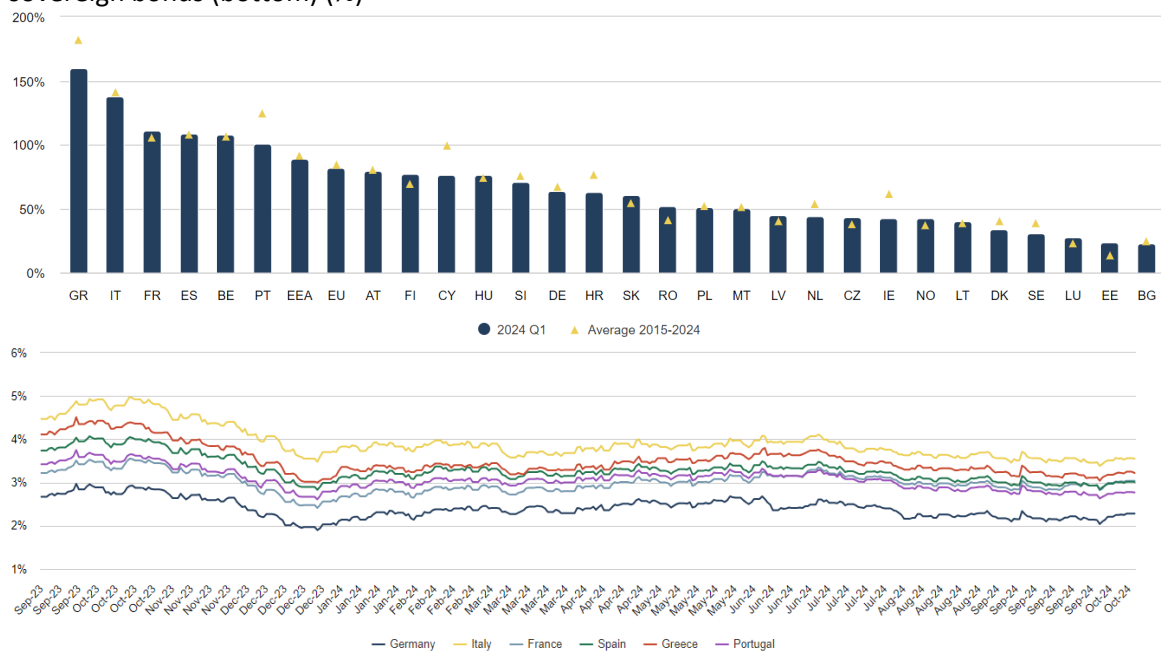


Source: Caldare and Iacoviello, Refinitiv Workspace, S&P Capital IQ, EBA supervisory data and calculations

The average debt-to-GDP ratio of European Union was reported at 82% in early 2024, representing a year-over-year decrease of 1%. There are, however, material country-level variations. Although interest rates stopped increasing and debt-to-GDP ratios slightly declined, sovereign bond yields slightly increased in the first half of 2024. This rise was not least driven by continued uncertainty regarding the future path of interest rates, as well as reflecting prevailing market concerns and potential risks to geopolitical stability. Elevated interest rates and sluggish economic growth have highlighted concerns about sovereign debt levels and their sustainability, underscoring the potential risks of intensifying the sovereign-bank nexus. Risks are key for financial stability, given the considerable exposure of EU/EEA banks to sovereign debt (see Chapter 2.1) (Figure 4).

For the purpose of this analysis, the recent "GPR daily Index" was also used. Dario Caldara and Matteo Iacoviello developed measures of adverse geopolitical risks based on a tally of newspaper articles covering geopolitical tensions. The indices have been employed in a multitude of analyses pertaining to geopolitical risks and have been referenced in a substantial number of institutional publications, including by the ECB, the IMF, and the OECD. For further information see Caldara, Dario and Matteo Iacoviello (2022), "Measuring Geopolitical Risk," *American Economic Review*, April, 112(4), pp.1194-1225, and the [Geopolitical Risk \(GPR\) Index](#). Furthermore, the selection of the temporal scope was intended to minimise the influence of the pandemic on the sectors of interest, allowing for a more accurate analysis.

Figure 4: Debt-to-GDP levels for European countries (top), Yields of selected European 10-year sovereign bonds (bottom) (%)

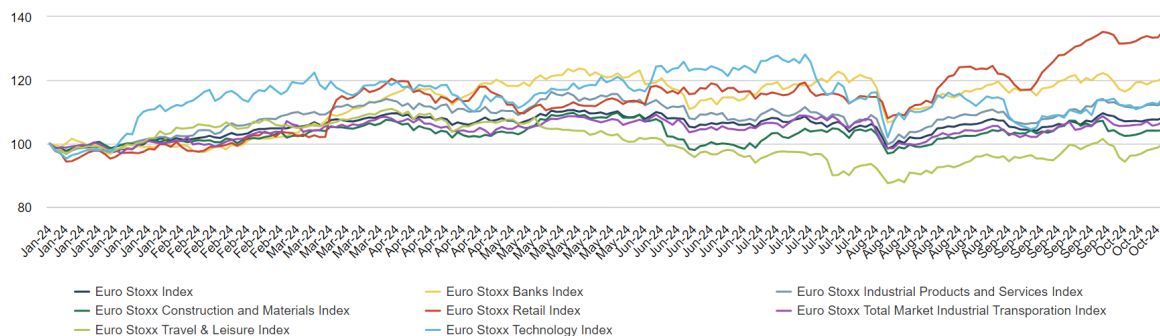


Source: Eurostat, Refinitiv

Despite outperforming other sectors, European bank stocks remain susceptible to market volatility

European market performance remained closely linked to global economic changes and policy shifts. Markets acted sensitively to central bank actions, fiscal policies and geopolitical factors that influenced their performance in 2024. Yet, equity markets demonstrated resilience during 2024 also due to strong corporate earnings. European banking sector stocks, in particular outperformed most of the other indices, benefiting from the interest rate environment and solid profitability of the sector (see Chapter 5). Markets, however, have been especially volatile during 2024, facing pronounced upheavals. These disruptions were unrelated and caused by external factors such as France's political instability in June (i.e. snap elections) or the rate hike in Japan which was coupled with poor performance of US job markets that spurred fears of a recession in late summer (see Box 2). Even though these disruptions were brief, high macroeconomic uncertainty and increasing ties between banking and NBFIs (see Box 3) suggest potential future vulnerabilities to sudden incidents (Figure 5).

Figure 5: Performance of selected European industries equity indices, (Jan-2024=100)



Source: Refinitiv

Box 2: Rising market volatility affects banks

Banks depend on a stable economy to function effectively. High volatility, caused by economic instability, political uncertainties, or monetary policy changes, leads to greater risks in lending and investments. This unpredictability can increase loan defaults and reduce asset values, harming banks' balance sheets.

Banks maintain a diverse portfolio of assets such as loans, mortgages, and various securities. The latter are highly responsive to market dynamics. In times of market turbulence, their values can experience marked volatility, potentially resulting in substantial losses. An abrupt hike in interest rates can diminish the value of bonds and other fixed-income instruments in banks' holdings, thereby impacting their profitability. Increased market volatility can also hinder banks' liquidity positions and increases the liquidity risk (see Chapter 3.3).

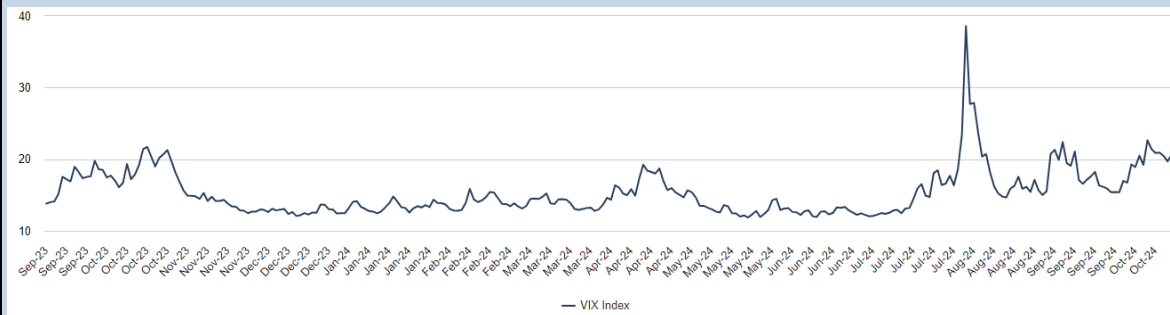
Investor confidence plays a pivotal role in the banking industry. Turbulent market conditions can undermine this confidence, potentially triggering a sell-off in banking equities. High levels of perceived uncertainty and risk prompt investors to shift their funds towards safer assets such as government bonds or gold. This flight to safety often leads to a drop in bank stock prices, complicating efforts for banks to raise capital via equity markets.

The VIX measures the implied volatility and indicates the markets' expectations of volatility over the next 30 days. This index is famous for reflecting investors sentiment and market uncertainty. Usually there is an inverse correlation between the index and the stock market movements, i.e. when the VIX surges the stock prices drop. The index has been mostly below 15 since the beginning of the year with the exception of a short-lived spike in March. However, since June, market volatility has increased significantly peaking at 38.6 following the 'Carry Trade Event'¹⁷. After this event, volatility levels remained elevated in comparison to the rest of 2024. Multiple factors may have contributed to this market volatility. The initial spark might have been Japan's central bank deciding to raise its policy rate, triggering the carry trade unwind, but market participants were also concerned about various economic data from major economies that fell below expectations. This

¹⁷ Carry Trade is a trading strategy which involves borrowing at a low interest rate and reinvesting in a currency or investment with higher return. For the specific event, the market participants borrow Yen – due to the low-interest rate environment in Japan and fund investments in assets elsewhere that offer higher returns. However, on 31st July 2024 the Bank of Japan raised its key interest rate which triggered investors to unwind their carry trades.

included slow growth in China and concerns over a possible recession in the United States. Moreover, central banks, particularly the Federal Reserve, hinted at potential interest rate hikes to combat inflation, raising concerns among those worried about the impacts on economic growth. Additionally, geopolitical tensions and a series of disappointing earnings reports from corporations further exacerbated market uncertainty and added to the negative sentiment. (Figure 6).

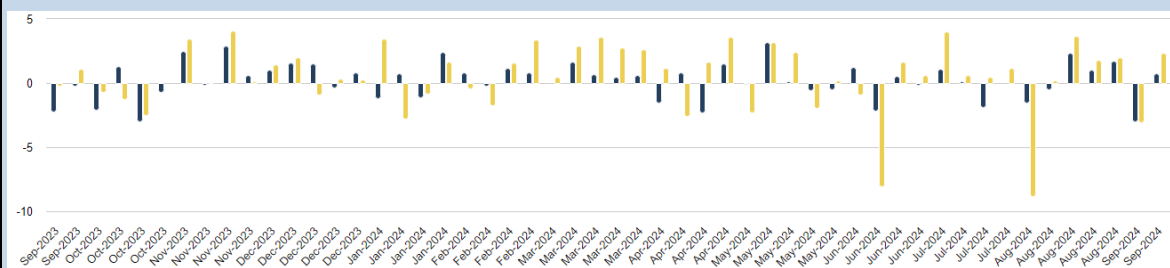
Figure 6: Chicago Board Options Exchange’s Volatility Index (VIX)



Source: Bloomberg

These market volatility spikes also impacted banks’ stock prices. In fact, European bank shares saw more pronounced price corrections, significantly underperforming the General European Index ¹⁸ during the summer market downturns. While the June corrections in banking equities, was more evident for French banks, due to country’s political uncertainty, the price corrections were more widespread during the August market turmoil (the bank index suffered losses of 8.3% over 2 trading days, whereas the general Eurostoxx index declined by only 3%). This was likely because the recent market turmoil was closely tied to developments in interest rates (Figure 7 and Figure 8).

Figure 7: Eurostoxx Index and Bank Index Weekly Returns (%)¹⁹



Source: Refinitiv, Bloomberg

¹⁸ The Euro Stoxx Index is a broad yet liquid subset of the Stoxx Europe 600 Index. The index represents large, mid and small capitalisation companies.

¹⁹ Eurostoxx (SXXE) Index and Euro Stoxx Bank (SX7E) Index which are part of the Eurostoxx Index, to secure comparable results. Eurostoxx Banks (SX7E) Index is a capitalisation-weighted index which includes listed banks in countries that are participating in the EMU.

Figure 8: Selected European Banks Weekly changes of stock prices (%)²⁰

Date	Stoxx Index	Bank Index	BNP Paribas	Credit Agricole	Societe Generale	Deutsche Bank	Banco Santander	Intensa Sanpaolo	Unicredit	Nordea	KBC	ING
03/05/2024	-0.10%	-2.27%	0.94%	1.48%	-3.47%	-7.71%	-6.60%	-2.48%	-3.62%	0.32%	1.57%	6.63%
10/05/2024	3.22%	3.18%	5.26%	4.60%	5.99%	4.06%	4.50%	4.00%	5.35%	3.47%	1.97%	1.01%
17/05/2024	0.14%	2.42%	1.56%	2.52%	5.05%	-1.52%	2.66%	4.68%	0.71%	1.01%	-4.06%	2.90%
24/05/2024	-0.56%	-1.95%	-7.05%	-0.41%	0.29%	0.56%	-2.22%	-5.78%	-0.19%	-1.75%	-1.05%	-1.04%
31/05/2024	-0.48%	0.18%	0.73%	-5.39%	0.29%	-3.17%	1.73%	1.55%	0.48%	0.36%	-1.33%	0.07%
07/06/2024	1.26%	-0.88%	-1.96%	-1.91%	-5.00%	0.46%	-2.08%	-0.53%	0.51%	-0.09%	-0.66%	0.13%
14/06/2024	-2.13%	-8.07%	-11.99%	-10.96%	-14.87%	-5.77%	-7.51%	-7.16%	-11.03%	0.13%	-3.40%	-6.43%
21/06/2024	0.54%	1.66%	1.58%	-0.08%	-0.23%	0.32%	-0.99%	3.69%	4.67%	0.49%	3.55%	1.27%
28/06/2024	-0.12%	0.63%	0.34%	-2.19%	-0.81%	3.10%	-0.10%	0.52%	1.62%	-2.11%	-0.81%	2.81%
05/07/2024	1.08%	4.03%	6.94%	6.95%	8.01%	5.07%	2.64%	2.26%	6.96%	0.22%	1.52%	3.42%
12/07/2024	0.15%	0.63%	-1.92%	-0.37%	-0.30%	-2.30%	1.44%	1.97%	0.27%	-1.35%	2.24%	1.60%
19/07/2024	-1.87%	0.46%	0.98%	2.25%	0.61%	-1.92%	-1.65%	0.70%	1.09%	-4.23%	-1.14%	0.32%
26/07/2024	0.00%	1.16%	2.24%	0.04%	0.84%	-3.94%	2.15%	1.63%	0.85%	1.28%	5.21%	1.14%
02/08/2024	-1.56%	-8.80%	-7.45%	-5.04%	-14.26%	-8.63%	-10.62%	-7.02%	-10.15%	-3.75%	-8.41%	-7.74%
09/08/2024	-0.50%	0.23%	-0.69%	-0.42%	-0.51%	0.90%	1.23%	0.22%	1.31%	1.71%	2.39%	-3.16%
16/08/2024	2.37%	3.71%	3.16%	2.89%	3.08%	5.63%	3.15%	4.20%	5.50%	0.38%	4.17%	3.53%
23/08/2024	1.03%	1.82%	0.49%	1.52%	1.97%	4.70%	2.92%	2.24%	0.56%	1.43%	-0.06%	1.54%
30/08/2024	1.72%	2.00%	1.89%	3.21%	1.65%	0.33%	3.32%	2.37%	2.28%	0.52%	1.27%	2.58%
06/09/2024	-3.02%	-3.07%	-0.64%	-0.18%	-0.02%	-0.54%	-4.53%	-2.60%	-3.09%	-2.29%	-4.86%	-2.61%

Source: Refinitiv, S&P Capital IQ

While volatility can create trading opportunities, it generally presents considerable difficulties for banking stocks. Fluctuating markets can reduce asset values, erode investor confidence and adversely affect profitability. Consequently, stability and predictability are crucial in the banking sector, making volatility unfavourable. Considering the episodes of heightened market volatility in 2024 and the ongoing macroeconomic uncertainty, increased caution is advised. Potential escalations in market volatility may arise from various sources, such as geopolitical tensions, political developments, and macroeconomic factors, including fiscal policy decisions and subsequent central bank monetary policies.

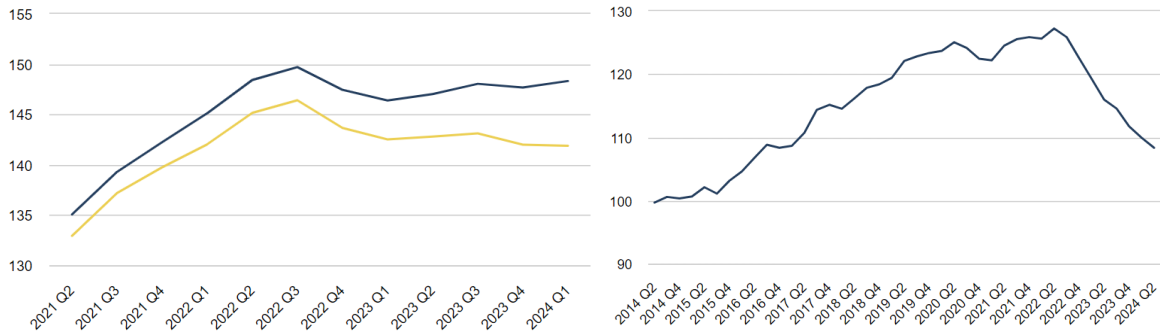
Real estate markets are stabilising, but conditions could deteriorate once more

After the 2023 slump in CRE prices, the first half of 2024 has shown price stabilisation. Although transaction activity remains low, CRE prices were estimated around 35% below their peak. Nevertheless, market sentiment has improved marginally over the course of 2024. Likewise, RRE prices appear to be stabilising too, suggesting a positive outlook for the market. House prices have increased by 1.3% YoY in the EU, while the euro area has seen a decrease of 0.4%. With inflation easing and cuts in interest rates, demand for loans in most main sectors has increased for the first time since 2022 (+2.1% YoY in September 2024) and is expected to rise further, according to the ECB lending survey²¹. There are, however, significant discrepancies between regions. In general, the drop in RRE prices has been more pronounced in countries that experienced higher property overvaluation at the onset of the rate hike cycle. Given the considerable exposure of EU/EEA banks to real estate, the stabilisation of these markets creates a favourable setting, enhancing both asset quality and profitability prospects (see Chapters 2 and 5).

²⁰ The banks' sample covers different European jurisdictions but with a heavier weight towards French banks, following the political events in France. As price reference closing price of the last trade (TRDPRC_1) was used for Refinitiv data.

²¹ [The euro area bank lending survey - Second quarter of 2024 \(europa.eu\)](https://www.europa.eu)

Figure 9: Residential Real Estate prices index (2015=100) (left) and Euro area commercial real estate price index (2011=100) (right)



Source: Eurostat, ECB

Box 3: EU/EEA banks' interconnections with NBFIs

Banks' exposures to NBFIs could be a source of vulnerability in periods of turmoil, as banks are often closely intertwined with different types of NBFIs. The EBA published in early summer 2024, as part of its RAR, a detailed assessment of the risks to the banking sector stemming from these interlinkages²². As of June 2024, EU/EEA banks' exposures to NBFIs amounted to 9.8% of consolidated bank assets. Large banks are generally more connected to the non-bank sector, with exposures amounting to 10.4% of total consolidated assets, followed by medium-sized banks (5.0%) and small banks (5.3%)²³.

Exposures towards NBFIs are highly concentrated in a few countries, as 80% of the total exposures of EU/EEA banks, are reported by only five countries, (i.e. France, Germany, Italy, Spain, and the Netherlands). Of these, with the exception of Spain, all countries reported relative total exposures towards NBFIs counterparty as a percentage of total consolidated assets above the EU/EEA average. In most countries, the main links to banks on the asset side are in common non-trading loans, followed by debt securities and reverse repos (Figure 10).

²² [EBA Risk Assessment Report – July 2024](#)

²³ Based on bank-level data from FINREP supervisory reporting; this data provides a granular breakdown by financial instruments, however, it treats NBFIs as an aggregated sector that includes insurance corporations, pension funds, other financial intermediaries and investment firms. More detailed breakdowns in terms of counterparty sectors can be obtained from alternative data sources, however the coverage in terms of instruments and number of banks would be lower. Large banks are banks with total assets exceeding EUR 100 bn; medium-sized banks are banks with total assets between EUR 50-100 bn; and all other banks are classified as small banks. This box provides an in-depth discussion of banks' asset-side exposures to NBFIs. For further insights into NBFIs funding for EU/EEA banks (i.e. the liability side), see the EBA Risk Assessment Report published in July 2024.

Figure 10: EU/EEA banks' asset exposures to NBFIs, as a share of total assets by country, Jun-2024



Source: EBA supervisory reporting data

The considerable increase in NBFi activity over the last 10 years is partly due to banks refining their business strategies to adapt to regulatory changes, such as CRR3/CRD6. Therefore, in some cases, these providers of 'private credit' could have become alternatives for bank lending. Results of a recent EBA survey with competent authorities performed as part of the regular work to monitor banking sector risks, suggests that NBFIs (particularly other financial intermediaries²⁴) in the EU/EEA largely tend to cover more niche markets that may have limited opportunities to access traditional bank financing. This includes, but is not limited to, low credit score consumer loans, specialised consumer credits (e.g. payday loans), leasing, factoring, real estate, or microfinance including SMEs.

NBFIs seem to be playing a particularly important role in the CRE market, especially as part of development and investment strategies (i.e. strategies to invest in illiquid assets). While the European CRE debt market is still dominated by traditional banks, the sharp rise in interest rates combined with lower valuations and the tightening of regulation have led to a significant reduction in banks' overall appetite for financing in this market. In addition, the CRE market is facing secular trends, such as Europe's focus on sustainable urban development and renewable energy, which often require specific financing requirements that are less suited to traditional bank loans and may be more suited to providers of alternative financing with more tailored arrangements, creating market opportunities for NBFIs.

NBFIs are also important for corporate lending, especially for SME financing amid rising interest rates and tightened SME lending standards by banks. Despite the continuing application of the SME supporting factor, banks face relatively strict capital requirements that limit their SME lending. Therefore, SMEs – which are responsible for a large share of employment in the EU – often face financing challenges because their access to external financing is limited for various reasons, including insufficient credit and rating history, opaque corporate structures and higher risk profiles. As far as NBFi lending is originated at fair prices and otherwise adequate standards, NBFIs which offer customised financing solutions tailored to the specific stage of SME financing could be an

²⁴ Although there is no universal definition of other financial intermediaries, according to the [European System of Accounts \(2010\)](#), this sub-sector includes, for example, financial leasing, hire purchase, personal and commercial financing, factoring, venture and development capital companies and import/export financing companies.

important complement to traditional bank financing in closing the financing constraints experienced by SMEs.

Consumer lending can be considered a more niche market in many jurisdictions, and NBFIs are in particular complementary to banks in providing services to segments of the population that have limited access to traditional bank lending for reasons such as irregular income or insufficient credit history.

Nevertheless, the results of the survey also indicate that, depending on the country, activities of NBFIs may largely overlap with those of the banking sector. Hence, banks and NBFIs are often seen as complementary to each other.

While improved access to credit as such undoubtedly improves welfare, and new types of lenders may cover parts of the market that are no longer attractive to banks, concerns have been raised. These include that lending standards may not always be as prudent as those applied by regulated financial institutions. The EBA survey also looks at how credit standards and asset quality at NBFIs compare to the banking sector. Responses suggest that NBFIs often charge higher fees and interest rates on credit products compared to banks, which could ultimately affect investment and economic growth. Main reasons for this might be NBFIs' increased preparedness to engage in higher-risk lending, or looser and more flexible underwriting standards, with products often not meeting the standards required by regulated financial entities. As a result, this may lead to greater variability in asset quality, particularly among non-bank lenders that are not owned by banks. The potentially reduced capacity of less-regulated lenders to absorb credit losses and/or their unwillingness or inability to remain in the market during economic downturns could pose risks of a credit crunch for affected borrowers with limited access to other sources of financing. Even if in the EU the volume of NBFIs lending remains moderate and is as such unlikely to be of direct systemic relevance, hidden risks may have been created which need to be carefully identified.

Although the risks related to liabilities, such as deposits from NBFIs or repurchase agreements with these entities, are significant, the larger financial intermediation system might be exposed to hidden connections and shared asset holdings, which are viewed as crucial sources of risk to their asset side. For instance, if banks' liquidity lines to NBFIs were suddenly triggered or banks had to absorb failing off-balance sheet vehicles onto their balance sheets, banks' own capital ratios could be compromised. In addition, asset losses triggered by NBFIs fire-sales could generate mark-to-market losses to banks, thus limiting their capacity to provide funding and liquidity support to their clients, including NBFIs.

2. Asset side

2.1 Assets: volume and composition

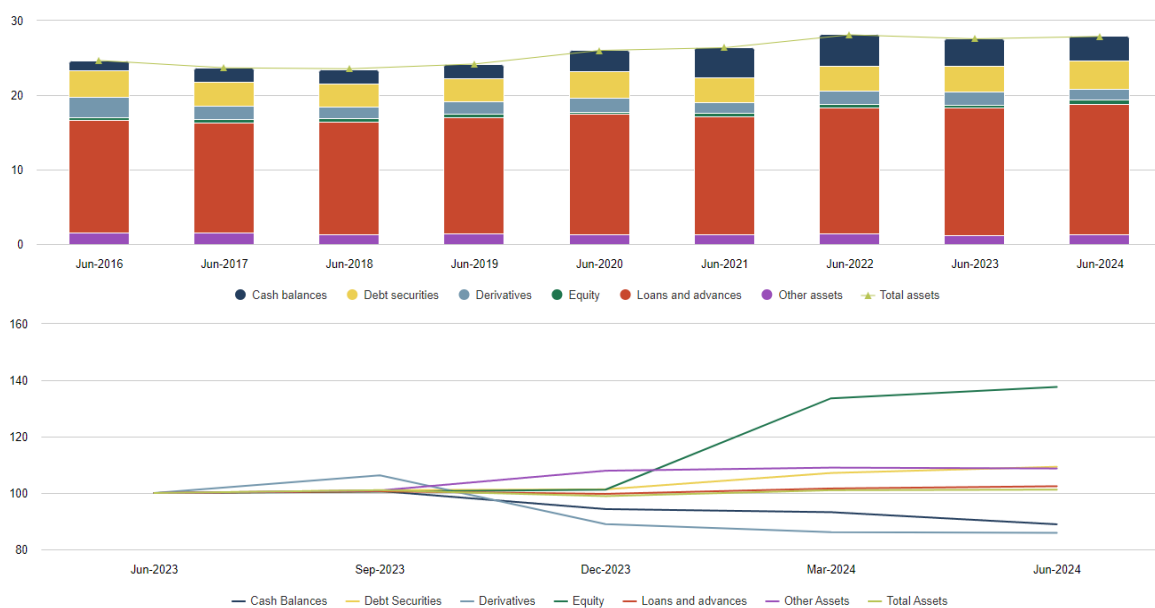
Asset growth driven by increase in loan and debt securities and partly offset by decrease in cash balances

EU/EEA banks' risk appetite remained constrained by the uncertain macroeconomic conditions and rising geopolitical tensions, hindering substantial balance sheet growth. In June 2024, EU/EEA banks reported total assets of EUR 27.9 tn, which reflected an increase of 1.2% (or EUR 327 bn) since June 2023.

The assets' development during this period was mainly the result of an increase of close to EUR 404 bn (+2.4%) in loans and advances (mainly due to an increase towards credit institutions and other financial corporations). A notable increase in debt securities (EUR 321 bn, +9.3%) and in equity holdings (EUR 152 bn, +37.6%) was also reported. Outstanding total loans reported by EU banks were above EUR 17.5 tn. Following a couple of years of deceleration, the YoY loan growth rate reversed above its historical trend of 2.0%. The rise in reported debt securities was mainly attributed to a significant increase of EUR 275 bn recorded in the first half of 2024, bringing the total exposure of EU/EEA banks to debt securities to EUR 3.8 tn by June 2024. This trend may have resulted from banks aiming to capitalise on higher interest rates, before central banks began to tighten their monetary policies. While the increase in debt securities was broader based for the sector, the increase in equity holdings was mainly attributed to only a few French banks.

The above increases in assets were partly offset by the continuing declining cash balances (decrease of EUR 414 bn, -11.1%), mainly due to the latest repayments of the ECB's TLTRO facilities, and lower derivative exposures (EUR 240 bn, -14.1% YoY). Despite the significant reduction in their cash balances, banks still reported EUR 3.3 tn of cash balances in their books, which is still 14% higher than the levels recorded in June 2019, contributing to the still comparatively robust liquidity ratios reported (see Chapter 3) (Figure 11).

Figure 11: Trend in asset composition (EUR tn) (top), and growth in asset components (Jun-2023 = 100) (bottom)



Source: EBA supervisory reporting data

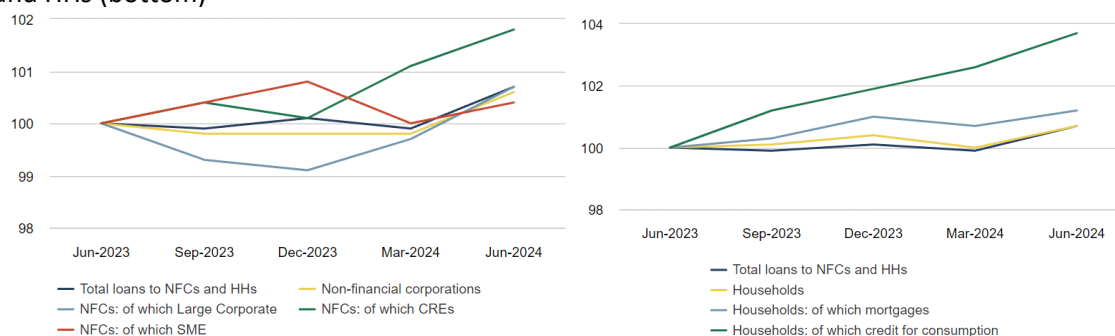
Lending is slightly recovering as banks cautiously provide new loans

As of June 2024, EU/EEA banks reported exposures towards SMEs of EUR 2.6 tn (+0.4% YoY), while CRE loans stood at EUR 1.4 tn (+1.8% YoY). Outstanding loans towards large corporates were up by 0.7%. In total, loans towards NFCs were up by 0.6% YoY and accounted for EUR 6.3 tn. Despite some improvement, the growth of loans to NFCs was still subdued due to sluggish net demand for loans from both SMEs and large companies across the EU. This decline was mainly due to elevated interest rates and weak fixed investment. Supply-side influences were also significant in the first half of 2024, as banks maintained stringent credit standards for loans and credit lines to businesses in all sectors. By contrast, firms' net demand for loans increased moderately in the third quarter of the year, for the first time since 2022, driven primarily by declining interest rates. In the first two quarters of the year, the net tightening reported in bank lending surveys was especially evident in CRE related exposures. This is in line with the findings of the last few EBA's RAQ, in which the most banks plan to maintain their current levels of exposure towards CREs or reduce them. Consequently, the significant rise in outstanding loans secured by CREs is likely due to providing support to existing customers through restructuring (please see Chapter 2.2. on forbore CRE loans), rather than increasing lending to new customers.

Sector-level data also shows that the main driver of the modest increase in EU/EEA banks' loans towards NFCs was a surge of nearly EUR 33 bn (+2.1% YoY) in loans to real estate activities. Additionally, NFC lending was also supported by the notable increase of EUR 19bn in loans to the information and communication sector, which exhibited the most pronounced YoY percentage growth across all sectors (+9.9% YoY). Despite the substantial increase in banks' involvement in financing technological industries, supplementary funding from other financial intermediaries and sectors, such as capital markets, will probably be needed to bolster the EU's digital transition strategy (Figure 12).

Total loans towards households accounted for close to EUR 7 tn (+0.7% YoY), of which EUR 4.5 tn (+1.2% YoY) were loans collateralised by RREs and EUR 1 tn (+3.7% YoY) credit for consumption. According to lending surveys, the net demand for house purchase loans demonstrated a modest recovery in the first half of the year, before experiencing a more pronounced surge in the third quarter. This was largely attributable to the improvement in the housing market conditions for buyers, and the developments in interest rates. The improved consumer confidence exerted a favourable, albeit minor, influence on demand for housing loans. Consumer confidence, together with improved spending on durable goods, also boosted demand for consumer credit, which increased despite the concurrent tightening of banks' credit standards. As a result, outstanding credit for consumption increased by close to EUR 36 bn, registering annual growth rate above the historical trend of the last 5 years (Figure 12). In the fourth quarter of 2024, euro area banks anticipate a significant easing of credit standards on housing loans, which, together with demand-side factors, should foster a further notable increase in demand for house purchase loans, supporting the recovery from the low levels reached in 2022 and 2023. A further increase is also projected in the demand for consumer credit, despite an anticipated further slight tightening of credit standards²⁵.

Figure 12: Growth in loans and advances by segment (Jun-2023 = 100), with a focus on NFCs (top) and HHs (bottom)



Source: EBA supervisory reporting data

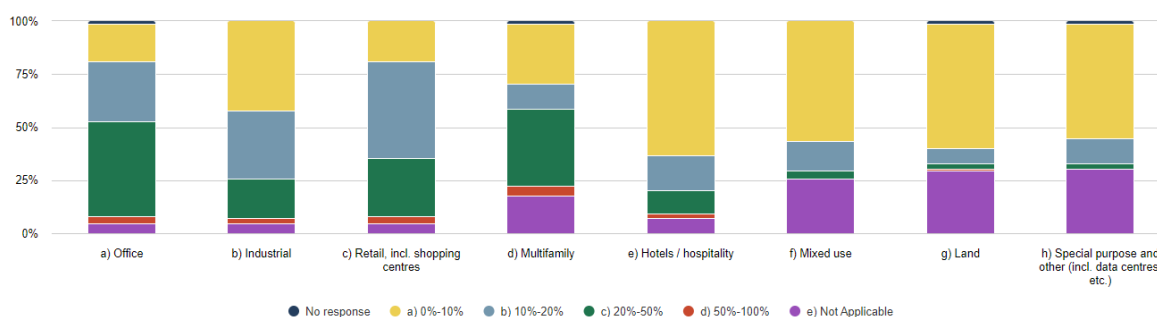
The diverse macroeconomic conditions across countries in the EU/EEA and the unique market dynamics in each country resulted in varied growth trends in loan volumes by segment at the national level. For example, German banks reported a marginal increase in their outstanding loans to NFCs (+0.4% YoY), while they recorded a slight decrease in their outstanding loans to households (-0.7% YoY). Similarly, French banks also reported a decrease of 0.8% YoY in lending to households while an increase of 0.3% in lending to NFCs. In contrast, Italian banks exhibited a more pronounced decline in both loans to households (-1.2% YoY) and loans to NFCs (-5.7% YoY). The latter was mainly driven by a considerable contraction in lending towards SMEs, which declined by 8.0% YoY. Notwithstanding the considerable diversity among country-level developments, most jurisdictions observed an expansion in consumer credit. Spanish banks reported the most notable surge, increasing their consumer credit exposures by EUR 19.1 bn (+6.4% YoY).

²⁵ In relation to the considerations on the development of loan demand and credit standards in this and the previous paragraphs, see the ECB's [Euro area bank lending survey \(europa.eu\)](https://www.europa.eu), editions from July 2024 and October 2024.

The collateral valuations of real estate assets should reflect the current market conditions

The EBA's RAR of July 2024²⁶ included a dedicated section on potential risks stemming from CRE exposures, in which it highlighted the diverse nature of CRE exposures and underscored the necessity for greater clarity regarding the types of CRE assets to which EU/EEA banks have extended loans. The Autumn 2024 RAQ reveals that banks in the EU/EEA are heavily invested in the office and multifamily sectors, while their investments in the retail sector, including shopping centres, are comparatively smaller. Banks in Northern and Western European regions are primarily exposed to office and multifamily properties, whereas banks in the Southern region reported a higher share of CRE-related loans towards retail properties (Figure 13).

Figure 13: Distribution of banks' CRE portfolio, autumn 2024



Source: EBA Risk Assessment Questionnaire

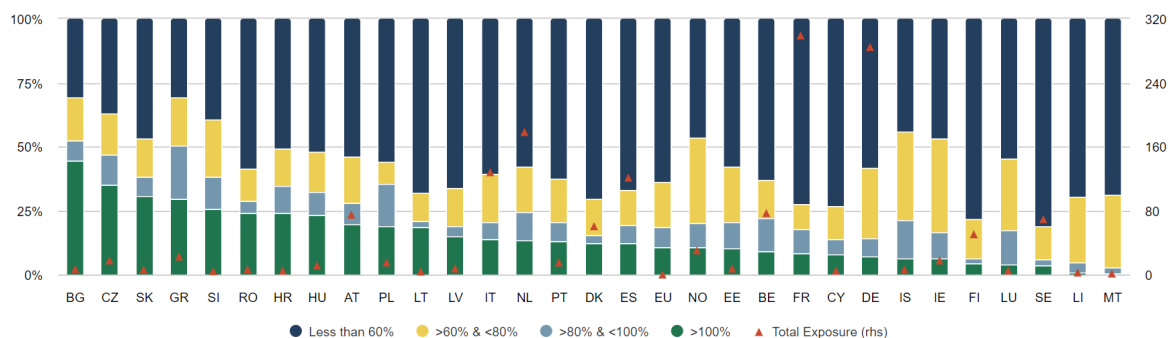
Considering the recent price adjustments in the CRE sector, particularly within the office category, it is imperative for banks to understand the importance of timely and prudent collateral valuation. Supervisors have indeed increased their oversight of these valuations²⁷ as part of a broader initiative to address structural weaknesses in banks' credit risk management systems²⁸. The EBA supervisory data reveals that, even following the recent adjustments in CRE valuations, LTVs of loans secured by CRE reported by EU/EEA banks has shifted marginally towards a lower risk profile. As of June 2024, nearly EUR 920bn of outstanding CRE loans had a LTV of less than 60% (around 904bn in June 2023), while approximately EUR 520 bn had a LTV above 60% (with EUR 150 bn exceeding a LTV of 100%). Banks reported a decrease in volumes within the higher-risk cohorts (EUR -15bn in CRE loans with a LTV > 80%), whereas the volume of CRE loans in lower-risk cohorts increased by more than EUR 40 bn. This data suggests that either EU/EEA banks are primarily increasing their exposure to highly collateralised CRE loans while steering clear of new financing with lower collateral valuations, or failing to accurately update the valuation of the underlying collateral (Figure 14).

²⁶ See [EBA's Risk assessment report - July 2024](#)

²⁷ See ECB's [Commercial real estate valuations: insights from on-site inspections](#)

²⁸ A more prudent approach in the valuation of property collaterals is also encouraged by the CRR3, where immovable property valuation evolves towards a more stable method, in order to reduce the cyclical effect of the real estate market. The requirement for frequent monitoring is maintained, but it is further reinforced by considering ESG-related elements and requiring sustainable valuations, which amongst others limit any upward adjustments beyond the property value at origination to the historical average over the last eight years for CRE and over the last six years for RRE. For further details, please refer to Article 208 and Article 229: [Regulation - EU - 2024/1623 - EN - EUR-Lex \(europa.eu\)](#)

Figure 14: Distribution by LTV of CRE loans, by country, Jun-24 (% and EUR bn)



Source: EBA supervisory reporting data

Amid escalating concerns over the sustainability of sovereign debt, European banks are increasing their investment in sovereign debt holdings

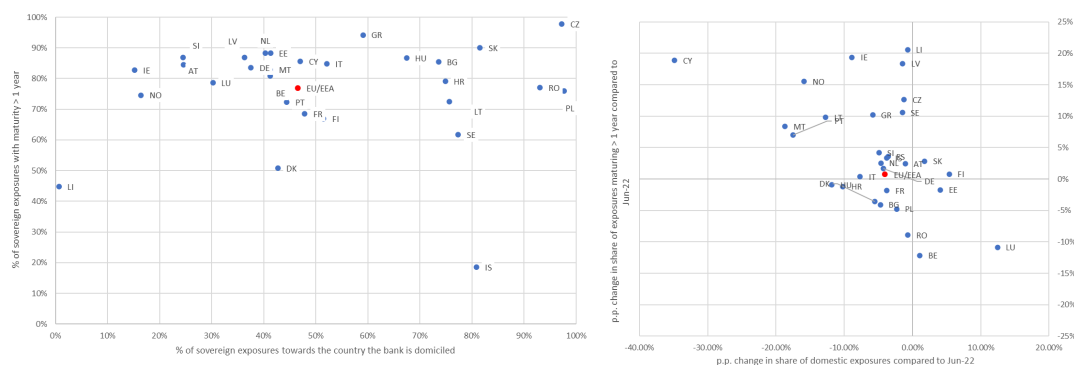
The level of interest rates reached last year raised concerns about the sustainability of long-term sovereign debt due to anticipated higher refinancing costs. Banks holding substantial government bonds are exposed to sovereign risk in case of financial turmoil. This could lead to a sharp decline in bond values, reducing profitability and undermining banks' balance sheets.

For EU/EEA banks, total sovereign exposures typically exceed twice their equity on average, with certain banks holding exposures multiple times higher than their equity. As of June 2024, EU banks reported more than EUR 3.5 tn in total exposures to sovereign counterparties, which indicates a nearly 6% rise from December 2023 (EUR 3.3 tn) and roughly EUR 140 bn more than the previous year (EUR 3.4 tn)²⁹.

Half of these amounts refer to domestic counterparties, while about a quarter are assigned to other EU/EEA countries. Greater exposure to sovereign debt, combined with an increased domestic bias, makes banks more vulnerable to elevated sovereign risk. On the other hand, higher interest rates, and therefore higher yields on sovereign bonds, offer banks the opportunity to refinance maturing sovereign exposures, predominantly fixed-rate bonds, at more advantageous rates, positively impacting their future profitability. EU/EEA banks' sovereign debt maturity profile leans towards longer terms, with at least 46% of holdings maturing in over 5 years and 31% within 1 to 5 years. This maturity profile suggests that taking advantage of refinancing maturing debt can be a slow process and differs significantly across country (Figure 15).

²⁹ According to COREP figures exposures towards governments and central banks decreased. This is driven by the exposures to central banks (see chapter 4 on exposures and RWAs developments)

Figure 15: Share of domestic and long-term sovereign exposures by country, Jun-2024 (left) and p.p. change in domestic and long-term exposures, comparison with Jun-2022 (right)



Source: EBA supervisory reporting data

About 58% of EU/EEA banks' exposures to sovereigns were reported at amortised cost, with around 20% at fair value, and 18% held for trading. The latter two categories directly impact the profit and loss and OCI statements, making profitability and OCI sensitive to changes in sovereign debt yields, especially for longer-duration instruments. Notably, the average classification at amortised cost was below 50% in only six countries: Germany, Denmark, Ireland, the Netherlands, Norway, and Romania.

A mixed and incomplete picture to-date on banks' green exposures

Insights into banks' exposures to green assets can be gained from data collected on Pillar 3 ESG disclosures³⁰. Most recent data reveal taxonomy alignment of EU banks' overall banking book generally remains modest as of December 2023. Both single asset classes (such as NFC and household) green asset ratios (GAR) and total GARs³¹ are low, with the majority of banks reporting total GARs below 2%. EU average weighted total GAR stood at just under 3% as of end of 2023³². Given the limitations of the GAR and its dependence on specific portfolio compositions, these numbers cannot provide a full picture of banks' engagement in green activities.

In relation to banks' green exposures to the loan segment collateralised by immovable property, the share of green exposures is showing positive signs. The majority of loans collateralised by immovable RRE and CRE for which energy efficiency performance is provided, are reported in the two highest performing energy efficiency buckets, even though only a minor portion meets the top standard of less than 100 kWh/m². On the other hand, low exposure shares are reported in the bottom two energy efficiency buckets (less than 20% for all but two banks and in most cases even

³⁰ The first round of data collection following the [EBA's decision](#) from July 2023 was conducted in June 2024, with data received for 112 large, listed banks as of the time of production of this report.

³¹ Total GAR numerator = Loans and advances, debt securities and equity instruments not HfT to FCs, NFCs s.t. NFRD disclosure obligations, households, local government financing and collateral obtained by taking possession: residential and commercial immovable properties. Total GAR denominator = assets covered in the GAR numerator plus loans and advances, debt securities and equity instruments not HfT to EU NFCs not s.t. NFRD disclosure obligations, non-EU NFCs (not s.t. NFRD disclosure obligations), derivatives, on-demand interbank loans, cash and cash-related assets, other assets (e.g. goodwill, commodities etc.).

³² GAR-related indicators reveal several calculation discrepancies, particularly for coverage ratios, and revisions are expected going forward.

below 10%). However, the share of the mortgage portfolio for which energy efficiency performance is disclosed varies widely across banks, and the share of exposures for which energy efficiency is based on estimates tends to be very high, with most banks using estimates for more than half the exposures for which energy performance numbers are provided. This leaves the picture exploratory and incomplete to date.

Physical risks impact financial institutions

The recent floods in Spain, previously in Central Europe, and heatwaves during last summer across Europe reflect the increasing frequency and severity of extreme weather events. These events inflict economic damage, disrupt communities and challenge business continuity, especially for financial entities facing direct and indirect impacts.

Directly, climate events can damage assets and infrastructure, causing financial losses for banks and insurers with holdings in flood-prone areas, for example. Indirectly, they can trigger economic and market disruptions - such as in agriculture - affecting commodity prices and leading to increased insurance claims or loan defaults due to supply-chain disruptions impacting businesses.

Box 4: 'Fit-for-55' climate scenario analysis

The first system wide climate exercise shows that transition risk losses alone unlikely to threaten EU financial stability.

As part of its 2021 Strategy for financing the shift to a sustainable economy, the European Commission requested that the ESAs and the ECB conduct a one-off 'Fit-for-55' climate risk scenario analysis, targeting banks, investment funds, occupational pension funds, and insurers. The objective is to assess the resilience of the EU financial sector to climate and macroeconomic financial shocks, while the 'Fit-for-55' package, which aims to reduce EU emissions by at least 55% by 2030, is smoothly implemented in the EU.

The ESRB, in close cooperation with the ECB, developed three scenarios, one baseline and two adverse scenarios. One adverse scenario focuses on climate-change related risks that already materialise in the near term, in the form of asset price corrections triggered by a sudden reassessment of transition risks, so called 'run on brown'. A second scenario combines such climate-change related risks with other stress factors, as far as possible consistent with scenarios of the EU-wide stress-testing exercises. In all three scenarios the 'Fit-for-55' package is assumed to be successfully implemented by 2030 as planned.

The ESAs and the ECB employed top-down models to measure the impact of the scenarios on the respective sectors (first-round effects) and to assess the potential for contagion and amplification effects across the financial system (second-round effects).

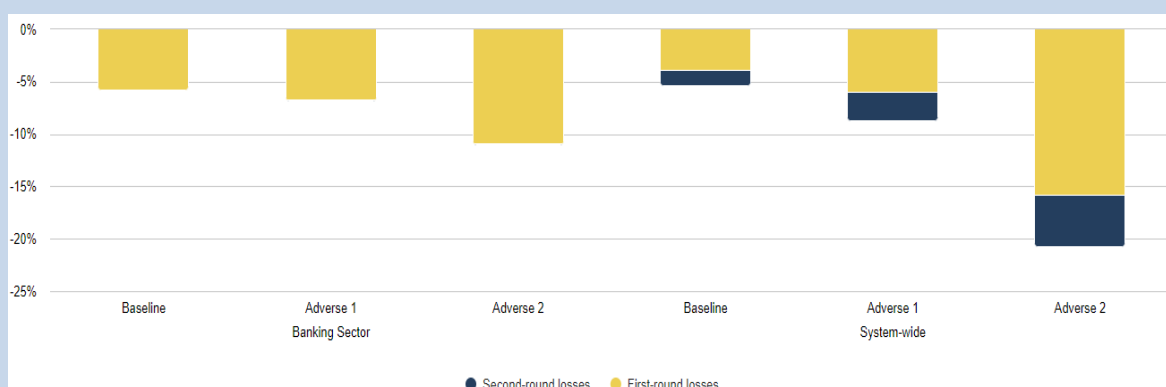
The results of the exercise show that estimated losses in the near term, stemming from a potential 'run-on-brown' scenario have a limited impact on the financial system. This means that perceived changes in climate risks alone, as reflected in the scenarios, are unlikely to trigger financial instability. The overall system-wide losses, which include both first and second-round effects,

represent 5.3% of total exposures in the baseline scenario and rise to 8.7% under the first adverse scenario. Losses specific to the banking sector account for 5.8% and 6.8% in these respective scenarios.

The interaction of adverse macroeconomic developments with climate risk factors could substantially increase financial institutions' losses, thereby leading to disruptions in financing the ongoing transition. This is assessed in the second adverse scenario where the "run-on-brown" is coupled with adverse macroeconomic conditions. In this scenario, the losses across the entire system and also including cross-sectoral amplification effects, can reach up to 20.7% of total exposures.

Amplification effects vary widely across sectors. In the simulation, investment funds experience more severe liquidity pressures due to redemptions, leading to fire sales of assets. This mechanism affects the funds' value and further impacts the price of securities held by financial institutions in the three sectors. Insurance corporations are mainly affected by the channel of fund share revaluations while banks have a relatively lower exposure to funds, which explains the more contained total³³ impact (11%) compared to other sectors³⁴ (Figure 16).

Figure 16: Total losses from climate risk stress test relative to total exposure



Source: EU-wide cross-sectoral assessment of climate-related financial risks

This exercise represents a significant step forward in the realm of climate stress testing, mainly in complexity and the incorporation of interconnected elements. Nevertheless, these estimates rely on several crucial assumptions, particularly concerning the second-round effects. Modelling uncertainty could also affect results, as the scenario construction itself involves highly detailed macroeconomic modelling. Differences in data coverage and dependence on various data sources increase the overall uncertainty of the findings. Despite inherent limitations, the exercise endeavours to maintain consistency across sectors, both in scope and methodology.

The preparedness and adaptability of institutions in managing climate-related risks can significantly contribute to drive the economy towards the net-zero target by 2050 and avoid the impacts of extreme weather events, sea-level rise, and natural disasters. To drive Europe's green transition and ensure long-term sustainability and resilience in an unpredictable global landscape, a thorough

³³ i.e., the sum of first and second round losses.

³⁴ 23.3% for the insurance sector and 25% for the investment fund sector (of the respective exposures).

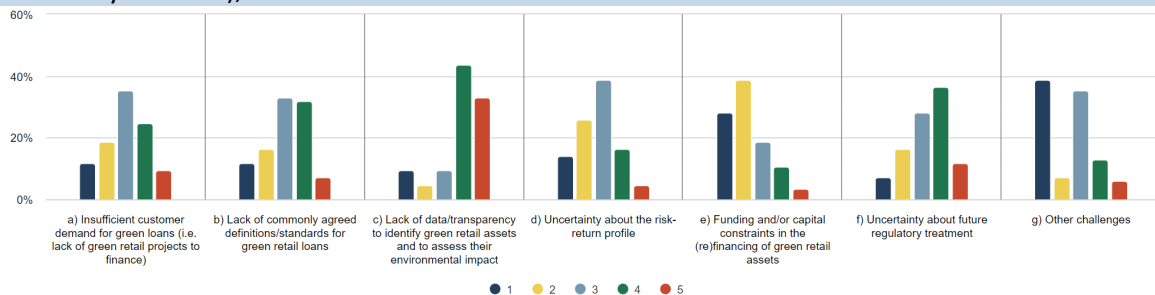
risk management strategy that includes both transition and physical risks, along with the efficient and strategic allocation of financial resources, is crucial.

Box 5: General market trends in sustainable loans

As part of the RAQ, the EBA monitors the developments in EU banks’ sustainable lending practices. Compared to the results of the Autumn 2023 EBA RAQ, the latest survey shows that the share of banks offering sustainable lending products increased slightly, with some differences across product segments and exposure classes. In the NFCs segment, the offering continues to be dominated by proceeds-based green loans (offered by 88% of responding banks) and performance-based sustainability-linked loans (offered by 74% of the banks). According to the survey results, the number of banks offering sustainable lending to their SME and retail clients did not reach the same scale as their engagement with large corporates. However, banks seem to be aware of the potential which lies in these market segments and start to further mobilise it. The number of banks granting sustainable lending products to SME and retail clients is increasing across all product categories, even more than for the large corporate segment. The number of banks offering performance-based sustainability-linked loans to SMEs increased by 8% and proceeds-based green loans by 4%. For retail clients the largest increase is observed for proceeds-based sustainability loans, as the number of banks offering these products increased by 5% in comparison to 2023.

The lack of data and transparency was highlighted again as the main concern restraining the market growth of sustainable lending (77%). This challenge is followed by banks’ concerns about the uncertainty about future regulatory treatment (48%) and the lack of common agreed definitions and standards (39%). The uncertainty about the risk-return profile of green investments and funding as well as the capital constrains in the (re)financing of green retail assets seem to be a lesser and decreasing concern (Figure 17).

Figure 17: Main impediments for the further development of green retail loans (1-not relevant, 5-extremely relevant), autumn 2024

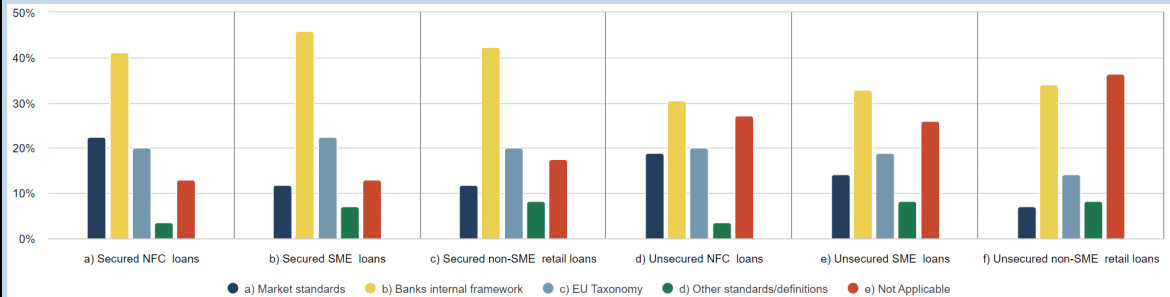


Source: EBA Risk Assessment Questionnaire

The ‘green’ or ‘sustainable’ lending is mostly defined based on the banks’ internal frameworks, with an increasing number of banks introducing their own definition of ‘green’. The EU taxonomy remains in the second place with around one fifth of institutions stating they use it as their main classification standard, which represents however a 5 p.p. decrease from 2023. As a growing trend, it can be recognised that banks increase their use of market standards, in particular for the secured

NFC loan segment (+3%), secured non-SME retail loan segment (+7%) and unsecured SME loan segment (+5%) (Figure 18).

Figure 18: Definition of green used by banks for different loan segments, autumn 2024



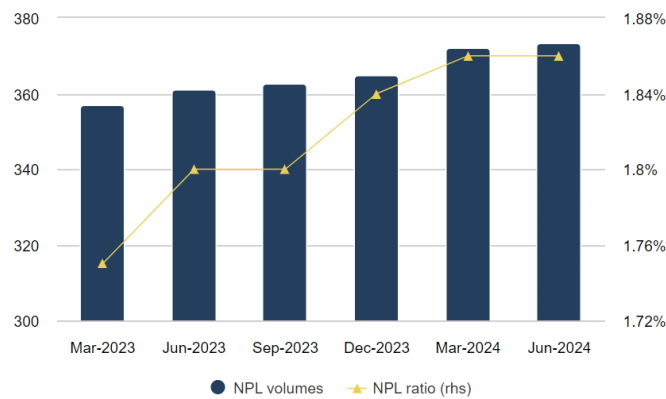
Source: EBA Risk Assessment Questionnaire

2.2 Asset quality trends

Slight, yet noticeable decline in asset quality

By June 2024, banks in the EU/EEA reported EUR 373 bn in NPLs, accounting for 1.86% of their total loans and advances. This marks an increase of over EUR 12 bn (+3.4%) from June 2023. Although NPLs have been rising steadily over the past 18 months, the rate of increase has been slow and originates from historically low levels in the EU banking sector.

Figure 19: Trend of EU/EEA NPL volumes (EUR bn) and ratio (%)



Source: EBA supervisory reporting data

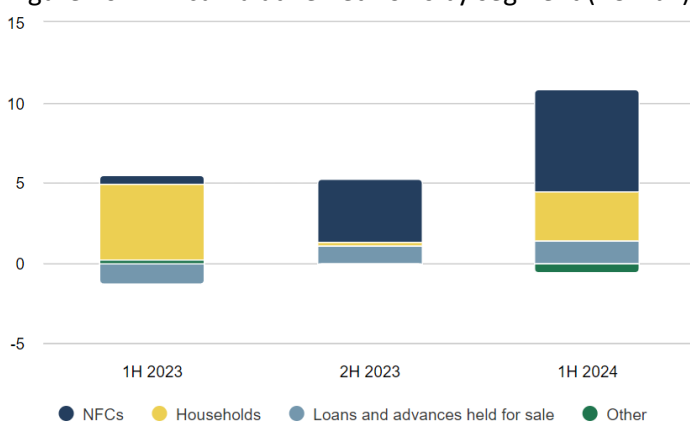
Although banks in most of the EU/EEA countries reported an increase in their NPLs, for several countries the YoY increase was more pronounced. German banks reported the largest increase in stock, approximately EUR 8 bn (+23%). Romanian, Icelandic and Swedish banks observed the highest YoY growth rates in NPLs at +54%, +43% and +40%, respectively³⁵. Conversely, Greek and Italian banks saw a marked reduction in their NPLs, about EUR 2.5 bn, during the second half of

³⁵ The annual change in NPL volumes is calculated using an unbalanced sample. The change for Romanian banks using a balanced sample is 9%.

2023, though these figures stabilised in the first half of 2024. Polish banks recorded the highest NPL ratio at 3.8%, followed by Greek banks at 3.4%.

In the first half of 2024, EU/EEA banks recorded inflows of NPLs amounting to over EUR 113 bn, while outflows were limited to EUR 103 bn. Although the outflows were consistent with those in the first half of 2023, the inflows saw an increase of more than EUR 6 bn. Unlike the first half of 2023, in which inflow of NPLs was attributed solely to households, the net inflow of NPLs since June 2023 was primarily driven by NFC defaults. These defaults were largely seen in French banks (mainly SMEs) and German banks (through CREs). For households, the most NPL inflows were attributed to French banks, predominantly from consumer credit (Figure 20)

Figure 20: NPL cumulative net flows by segment (EUR bn)

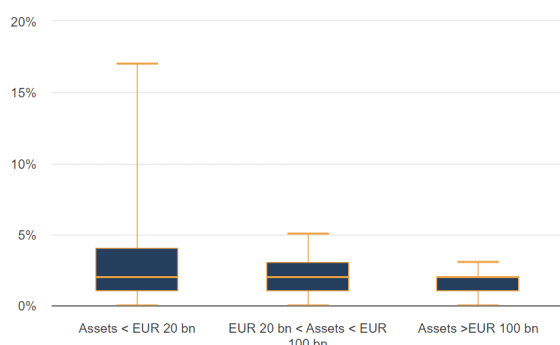


Source: EBA supervisory reporting data

Credit risk may pose a greater threat to smaller institutions

Smaller banks typically exhibit lower asset quality compared to their larger counterparts. The weighted average NPL ratio of banks with assets less than EUR 20 bn was 3.4%, while for banks for which their assets exceeded EUR 100 bn was 1.9%. The NPL ratio of medium-sized banks was 2.1%. Several factors contribute to this discrepancy. For instance, smaller banks often pursue higher-margin lending practices by targeting riskier segments, such as SMEs and consumer credit, which naturally involve greater risks. This involves offering loans to individuals with higher risk profiles, albeit unintentionally. Additionally, smaller banks frequently face high asset concentration due to their limited ability to diversify their portfolios. Moreover, their risk management practices are generally less advanced than those of larger banks, and they have restricted access to risk mitigation tools like securitisations and government programmes (Figure 21).

Figure 21: Distribution of NPL ratios by size of bank³⁶ (95th, 5th percentiles and interquartile), Jun-2024



Source: EBA supervisory reporting data

The allocation for Stage 2 remained at high levels

EU/EEA banks reported a 4.6% increase in stage 3 loans compared to the previous year, reaching EUR 350 bn by June 2024. Similarly, stage 2 loans saw a 4.5% YoY rise, driven mainly by developments in the second half of 2023, and totalled nearly EUR 1.5 tn in June 2024, representing 9.3% of all loans.

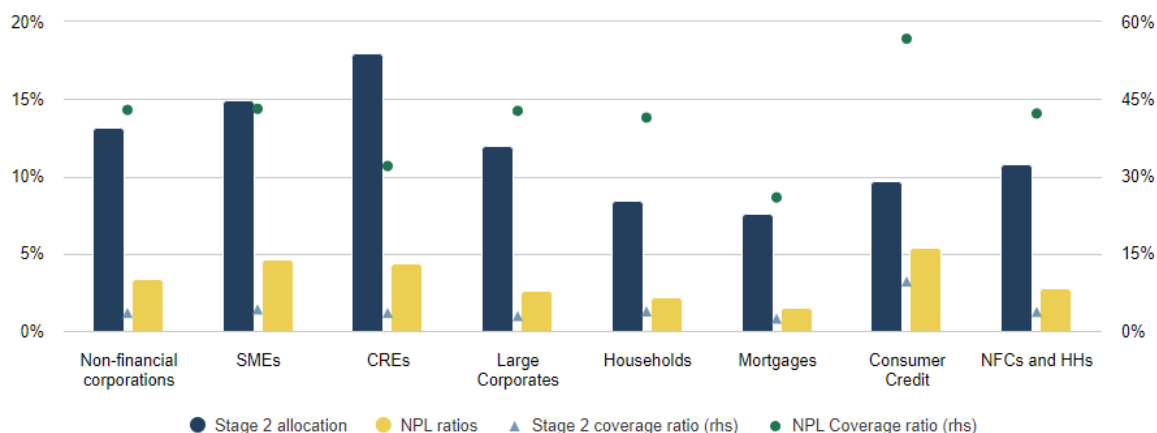
Reported trends in asset quality showed significant variations across countries. These differences arose from the asset composition of banks in each country, the proportion of fixed-rate to variable-rate loans, and their respective economic conditions. For example, banks in France, Germany, and Spain reported a downgrade in loan quality (from stage 1 to stage 2 and stage 2 to stage 3), while banks in Belgium and Austria presented a more mixed picture, reporting both an upgrade of loans from stage 2 to stage 1 and a shift of loans from stage 2 to stage 3. German banks saw stage 2 loans rise by nearly EUR 62 bn (+30%), and French banks experienced an increase of EUR 31 bn (+7%). Conversely, Italian banks saw a drop in stage 2 loans by approximately EUR 30 bn (-17%).

Certain segments exhibit elevated credit risk

The asset quality deterioration was not only country-specific driven but was also driven by certain segments. Stage 2 allocation was notably high for CRE loans, with 18% of the CRE loans designated in Stage 2 (up from 16.7% in June 2023). CRE also had an increased NPL ratio (4.4% vs 3.9% a year earlier). Consumer credit had the highest NPL ratio (5.4%), though only 9.7% of consumer credit was reported in Stage 2. Credit quality also worsened for SMEs, with 14.9% of SME loans reported in Stage 2 and 4.6% classified as NPLs, notably higher than a year earlier (14.1% and 4.3% respectively). This is significantly higher than the NPL ratio for large corporates, which stood at 2.6% (Figure 22).

³⁶ Data of the charts is based on all credit institutions of EUCLID. For the list please refer here [Registers and other list of institutions | European Banking Authority \(europa.eu\)](#)

Figure 22: NPL ratios, Stage 2 allocation and coverage ratios by segment, Jun-2024



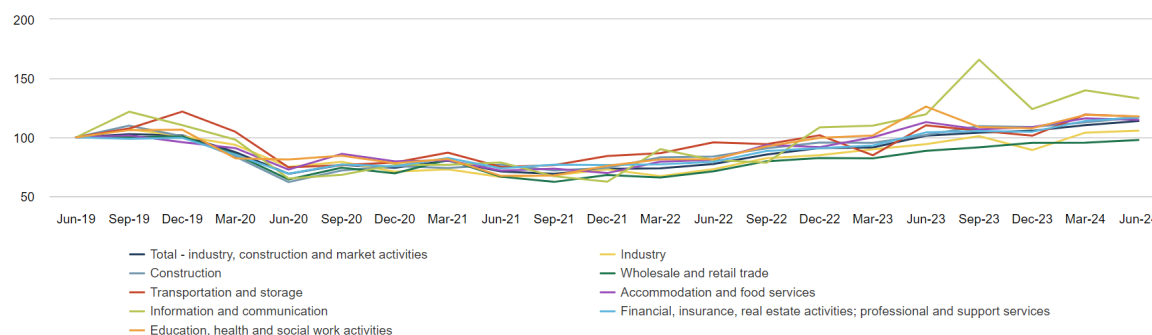
Source: EBA supervisory reporting data

Supervisory reports indicate a marked decline in the quality of assets related to NFC in the real estate sector. Banks in the EU/EEA have reported a 39% rise in NPLs within the real estate sector since June 2023, amounting to an increase of over EUR 12 bn in NPLs for this sector. The information and communication sector experienced the second highest increase in NPLs in absolute terms among sectors, although this was less than EUR 2 bn.

Banks' supervisory data reconciles to some extent with the market data on insolvency rates. In June 2024, the seasonally adjusted number of declarations of bankruptcies increased by 12.2% in the EU, compared with June 2023. This was mostly driven by the construction sector, which exhibited a YoY surge of 14.8%. Notable increases were also reported by the financial, insurance and real estate sector (+12.2% YoY), as well as the information and communication sector (+11.3% YoY), substantiating the deterioration of asset quality reported by banks for these sectors (Figure 23).

The country-level developments were characterised by a certain degree of heterogeneity, with most of jurisdictions witnessing an uptick in the number of bankruptcy filings. In June 2024, Croatia and the Netherlands observed the largest YoY percentage increases (+41.9% and +34.2%, respectively), while Latvia and Estonia reported a decrease, albeit more modest (-11.9% and -7.1%, respectively).

Figure 23: Bankruptcy declarations in the EU by sector, (Jun-19=100)



Source: Eurostat

Forbearance and provisioning developments point to potential further, albeit limited, asset quality deterioration

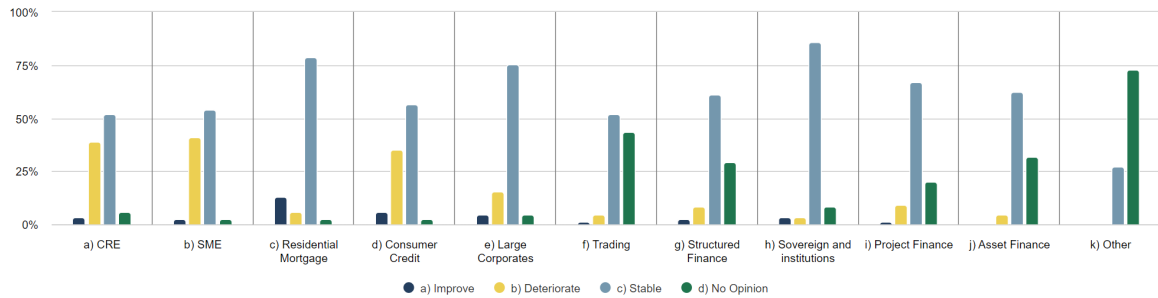
Banks in the EU/EEA reported EUR 283 bn in loans under forbearance measures, accounting for 1.4% of their total loan portfolio, which is slightly lower than the previous year's figure of EUR 291 bn. Over 60% of these forbore loans were towards NFCs, with approximately EUR 70 bn to CREs. Notably, forbore loans secured by CRE have risen by about 5% over the past year. This was the only segment that banks reported an increase in forbore loans on a yearly basis, demonstrating not only the heightened risk of the CRE segment but also the proactive handling of distressed borrowers during the upheaval of CRE markets.

The coverage ratio for NPLs has continued its decline, reaching 42% (down from 42.9% in June 2023). As of June 2024, banks within the EU/EEA reported EUR 238 bn in total provisions, with EUR 157 bn allocated to NPLs. Despite an uptick in their NPLs, banks have not matched this with proportional increases in provisions, perhaps due to the pre-existence of overlays assumed in previous years. The coverage ratio for performing loans was 0.41% (compared to 0.44% in June 2023).

Overall, the total provisions of EU/EEA banks decreased by 1% YoY, mainly due to a 6% decrease in provisions for performing loans, while provisions for NPLs slightly increased by 1%. Specifically, EU/EEA banks saw a 5% YoY increase in provisions for CRE related performing loans. Meanwhile, the modest rise in provisions against NPLs was primarily driven by consumer credit and CRE related provisions.

Based on the findings from the Autumn 2024 RAQ survey, a considerable portion of banks anticipate a generalised decline in asset quality over the next 6 to 12 months. The deterioration is primarily expected in the consumer credit, SME, and CRE sectors (approximately 40%). However, when compared to the same survey conducted a year earlier, this percentage has significantly decreased. Additionally, the outlook for loans secured by RRE has shown substantial improvement (only 20% of banks expect asset quality deterioration), indicating a stabilisation in the housing markets across the EU/EEA (Figure 24).

Figure 24: Expectations of asset quality deterioration in the next 6-12 months, autumn 2024



Source: EBA Risk Assessment Questionnaire

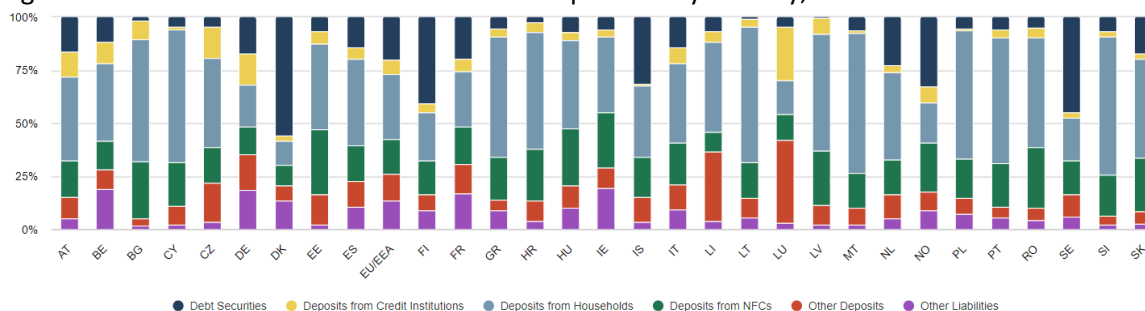
With an uncertain macroeconomic outlook and rising geopolitical risks, banks face potential threats to credit quality. Banks must stay alert and factor in these economic challenges in their credit risk assessments, ensuring thorough evaluation of borrowers' repayment ability. Timely identification of distressed debtors, adequate provisioning, and recognising loan losses are crucial, along with proactively managing such issues through forbearance or other measures.

3. Liabilities: funding and liquidity

3.1 Funding

Banks' liabilities grew by around 1% YoY, reaching EUR 26.1 tn as of Q2 2024. Within liabilities, debt securities issued increased the most, by around 8% YoY, reaching a share of 20% in total liabilities (18.7% as of Q2 2024). Customer deposits from NFCs showed the second highest YoY increase in banks' funding instruments of nearly 5%. Their share in EU/EEA banks' total liabilities reached 16.7% as of Q2 2024. Customer deposits from households represent the largest share of total liabilities, accounting for approximately 31%, with a YoY increase of around 3%. Other deposits, including those from credit institutions, rose by around 2% YoY. Conversely, other liabilities, which include central bank funding, significantly declined by nearly 16% on a yearly basis. This confirms previously identified trends indicating that banks have effectively reduced their reliance on central banks funding, predominantly substituting it with market-based funding. Regarding the liability mix, dispersion among countries has remained wide. Whereas certain Eastern and Baltic banks, as well as Cypriot, Greek, Maltese and Portuguese banks heavily rely on household deposits, banks from other countries have a higher dependency on market-based funding (Figure 25).

Figure 25: Breakdown of financial liabilities composition by country, Jun-2024



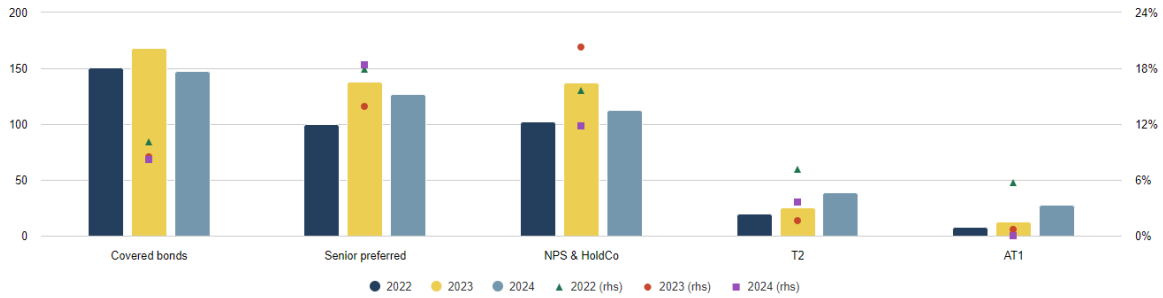
Source: EBA supervisory reporting data

Despite several instances of spikes in market volatility, banks have remained active in primary markets

Market data indicates that EU/EEA banks have remained highly active in primary funding markets over the last 2 years, except for periods of significant volatility. This has resulted in an increase of the proportion of market-based funding in banks' total liabilities. Issuance activity and volume has also been very volatile throughout the course of the year, with several periods of low or no activity in primary markets. This was not least the case at the time of events related to the New York Community Bancorp and Japanese Aozora Bank earlier this year, when French snap parliamentary elections were announced in the summer, as well as end of July / beginning of August when financial markets' volatility spiked amid the events related to the unwinding of Yen carry trades. Although banks managed to make use of their windows of opportunities, issuance volumes were found to be below last year's volumes for the majority of seniorities. Issuance volumes of covered

bonds were also marginally below 2022 volumes. Only the volume of issued AT1 and T2 bonds was higher than in the last 2 years (Figure 26).

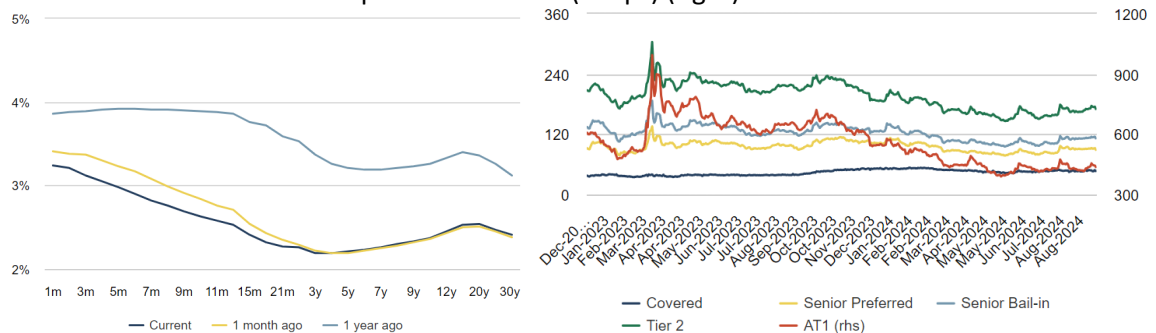
Figure 26: EU/EEA banks’ issuance volumes YtD, by debt seniority (EUR bn), and share of green bonds per debt class (%) (rhs)³⁷



Source: Dealogic

In the context of falling interest rates, banks have experienced a reduction in their expenses associated with market-based funding on an annual basis. This was generally supported by lower yield curves, but also a decline in spreads (see Chapter 1 on the interest rate environment). The contraction in spreads was observed for all seniorities of bank debt, albeit with some volatility during this year. However, none of these occurrences saw spreads reaching the levels recorded during the Silicon Valley Bank and Credit Suisse induced events in spring last year. It may be reasonably assumed that these rather muted moves of spreads helped banks to comfortably place their debt last and this year. However, the decline in overall yields might not least be the main reason of heightened interest in subordinated instruments. It is possible that investors searched for rather high-yielding instruments in a time of rate reductions, leading to the YoY increase in issuance volumes of these instruments (Figure 27).

Figure 27: Yield curve for European banks (in %) (left) and cash asset swap (ASW) spreads of banks’ EUR-denominated debt and capital instruments (in bps) (right)



Source: Bloomberg, IHS Markit³⁸

Greenium of banks’ issued debt on a declining trend

³⁷ Cut-off date for this chart was 30 September 2024.

³⁸ 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

A frequently debated topic in funding is the potential impact of ESG aspects in pricing. There are ongoing discussions about whether bonds classified as ‘green’ could have lower funding costs. There is no clear proof for this, and any analysis in this respect bears the risk of being incomplete. Based on EBA calculations using a sample of pairs of green and non-green (conventional) bonds one might for instance observe that covered bonds consistently have a very small, but rather constant ‘greenium’ over time, i.e. the funding costs of green covered bonds tended to be slightly cheaper than those of conventional covered bonds during the analysed period³⁹. In contrast, senior preferred bonds’ ‘greenium’ is much more volatile. Their greenium also spiked during the Silicon Valley Bank and Credit Suisse induced events, indicating that investor demand for such green instruments might have been higher than for other instruments. In recent months the ‘greenium’ declined and even temporarily reached negative territory, i.e. green senior preferred bonds’ funding costs were even higher than those of conventional ones, before rising again recently. The decline below zero might reflect a trend of a maturing market in which green issuances are no more ‘scarce’ as it had been in the past, but it might also be potentially waning interest in ESG and green investments, which might have reverted again⁴⁰. Another driver is that green bonds are becoming more mainstream products, leading investors to focus more on what these bonds specifically finance. They might be less likely to pay a premium solely for the green label, driven due to growing concern about greenwashing (see Box 10 on greenwashing risk). The development of the senior preferred greenium can also be affected by the supply side and overall market trends⁴¹. Issuance data shows that the relevance of senior preferred green bonds was higher than last year (Figure 26). The ‘greenium’ of non-preferred senior instruments also showed elevated volatility, with values occasionally dropping below zero on in the considered period. These were periods of elevated volatility, and investors might have preferred to invest in potentially more standardised conventional instruments in this range of the seniority of bank bonds (Figure 28). At the same time supply of green bonds as share of total non-preferred issuances declined YtD compared to 2022 (Figure 26).

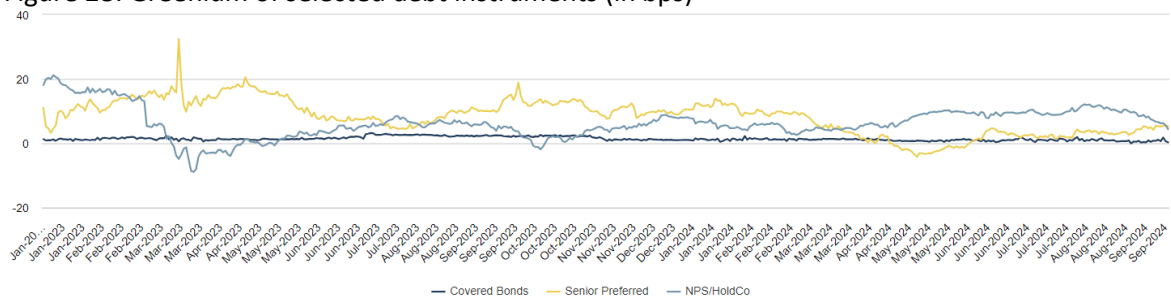
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³⁹ The pairs of bonds were built for covered bonds, preferred senior bonds and non-preferred senior bonds, for the same or very similar issuers, and trying to match maturity, volumes, and similar aspects. The analysis is just indicative and presumably not statistically significant. Liquidity might be one aspect that can affect the greenium calculation. To avoid that completely illiquid instruments are considered, the calculation uses iBoxx data from IHS Markit, which aims to use liquid bonds in their indices’ calculations.

⁴⁰ See on potentially declining interest in green bonds and similar investment opportunities for instance [European Securities and Markets Authority’s \(ESMA\) Report on Trends, Risks and Vulnerabilities](#), No. 2, 2024, from August 2024, covering that green bond issuance slowed and that sustainable funds faced outflows for the first time in H2 2023. See also [American University – Kogod School of Business – Kogod Sustainability Review’s article “Is ESG investing dead”](#) from June 2024 or from July 2024.

⁴¹ See also a more detailed analysis and coverage of greenium trends in Box 8 of the [EBA’s Risk Assessment Report 2022](#).

Figure 28: Greenium of selected debt instruments (in bps)



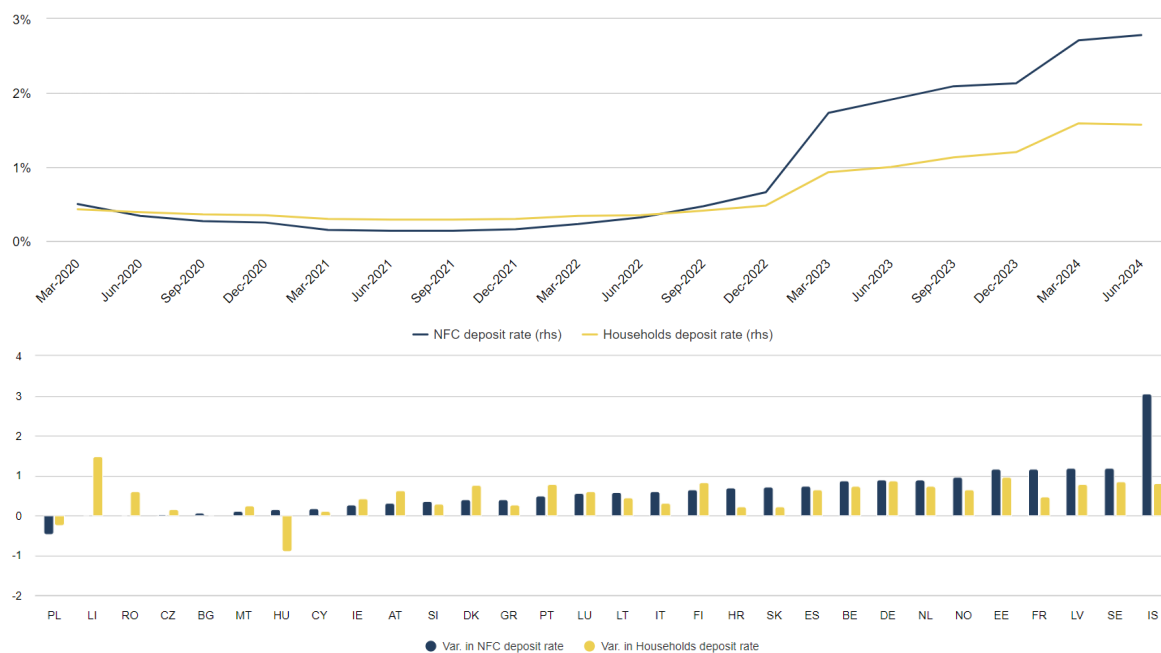
Source: Dealogic, IHS Markit, EBA calculations

Customer deposits have remained an attractive funding instrument for banks

With a share of nearly 50% in banks' total liabilities, customer deposits from NFCs and households are the most important funding instruments. Despite periods of elevated uncertainty, banks have managed to increase their deposit base. This comes despite a flattening in the increase in the cost of deposits. Data indicates that rates for household deposits continued to rise until the first quarter this year, although this was from a very low base, and stayed flat afterwards. Rates for NFC deposits rose more than those for household deposits and while they remain notably higher, they have not yet flattened, even though their growth rate seems to decelerate in recent quarters. This confirms a general observation that deposit betas tend to be higher for NFC deposits than for household ones⁴². Country-level analysis shows that, on a YoY basis, the higher rise in costs for NFC deposits vs household ones is similar across the board. It also shows that in Member States that started their interest rate cuts earlier, deposit rates have already started to decline. In the case of Hungary, for example, data indicates that interest rates significantly declined for household deposits, whereas those for NFC deposits remained relatively stable. However, data for Poland does not confirm this view, as the decline in deposit rates was more pronounced for NFCs than for households (Figure 29)

⁴² See for instance also Box 7 of [last year's Risk Assessment Report](#), which confirms this view, showing that betas of NFC deposits are higher than those of household deposits.

Figure 29: Rates of stock of NFC and household deposits of EU/EEA banks over time (top) and YoY p.p. change of stock deposit rates, by country, Jun-2024 (bottom)



Source: EBA supervisory reporting data

Declining relevance of central bank funding – asset encumbrance ratio further decreasing

Central bank funding significantly declined during this year, mainly driven by further repayments of the ECB's TLTRO. Whereas the outstanding amount stood at around EUR 400 bn in the beginning of this year, the remainder is now at around EUR 29 bn. This will need to be repaid by December 2024, when the programme will end. Furthermore, the outstanding amount of the ECB's LTRO was around EUR 11 bn, and of the main refinancing operations (MRO) around EUR 12 bn as of September 2024⁴³. In comparison to total liabilities, these are rather insignificant amounts. In addition to the end of the TLTRO, the ECB's asset purchase programmes are also being phased out. This is expected to affect market liquidity, which may in turn have an impact on banks' funding. Furthermore, this could also affect other areas of banking activity, such as trading, and other areas that might be impacted by potential heightened market volatility.

In parallel to the decrease in central bank funding, the EU/EEA banks' asset encumbrance ratio has also further declined recently. The ratio stands at 24.2% as of Q2 2024, down from 25.4% one year ago. This compares with levels of nearly 30% in the preceding years. There is a considerable dispersion between countries. Countries with rather higher asset encumbrance ratios tend to be those with banks that make more use of covered bonds as part of their funding mix, for instance⁴⁴.

⁴³ See the ECB's information on open market operations, including links to the calendars for TLTRO-III, with further data in the [history of all ECB open market operations](#) (data for this report extracted as of 9 October 2024). See on TLTRO also the [spring 2024 edition of the Risk Assessment Report](#).

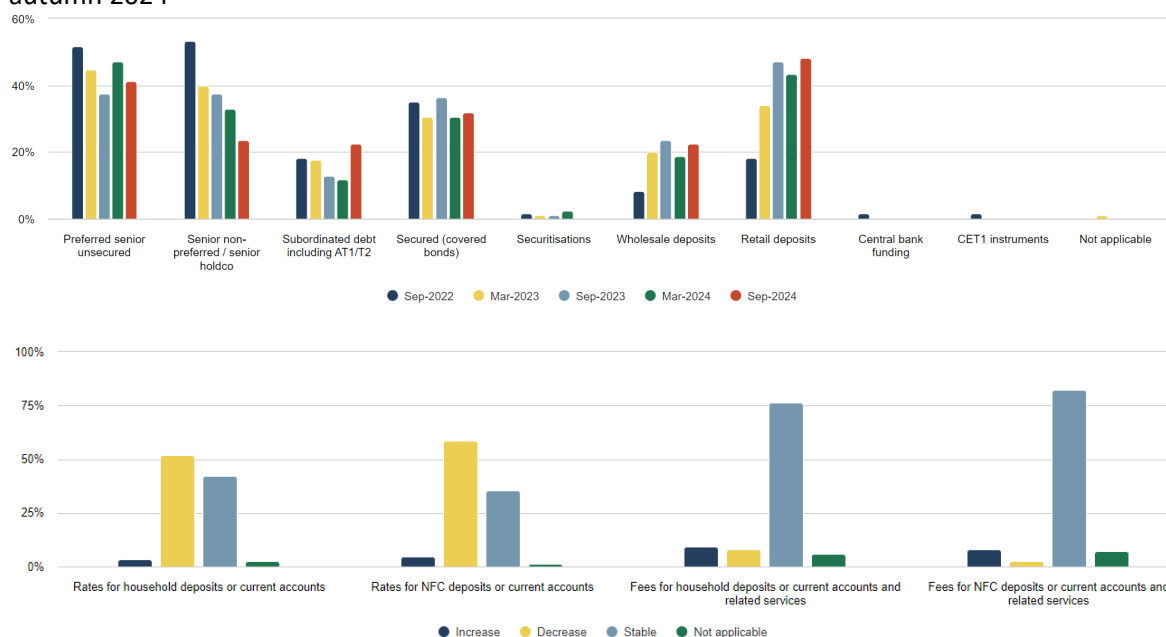
⁴⁴ See in more detail the [spring 2024 edition of the Risk Assessment Report](#), in which asset encumbrance is covered in a separate chapter.

Household deposits focus area for bank funding going forward

Looking forward, EU/EEA banks expect that retail deposits will be a key focus area in their funding mix for the next 12 months, based on RAQ results. Senior preferred bonds represent the second most important funding instrument, whereas NPS bonds and instruments issued from HoldCo have continued their declining trend already observed in previous RAQ editions. The latter is presumably reflecting that most EU/EEA banks meet their MREL subordination requirements. Future issuances in this segment will presumably be due to changes in those requirements or due to the replacement of respective outstanding debt (see also Chapter 3.2 for the MREL related analysis).

RAQ responses confirm expectations that, subsequent to their repayments, there are clearly no plans for banks to increase their central bank funding again. However, this would always constitute a potential source of funding to resort to if needed, for instance, during market upheaval amid materialising geopolitical risks or similar situations. The decline in asset encumbrance ratios indicates that banks have also room to potentially use the new unencumbered assets for the purposes of respective funding, assuming they fulfil the related requirements for collateral. RAQ results also show that around 50% of EU/EEA banks intend to decrease their rates for household deposits, and the share of banks planning to do so for NFC deposits is even slightly higher. Decreasing deposit rates is a natural result in times of interest rate cuts by central banks. However, this might present challenges for those who plan to increase retail deposits. Nevertheless, around 40% of banks aim to keep their rates for retail deposits stable. Furthermore, according to the RAQ results, there are no plans to increase fees for deposits and current accounts by most of the banks. There are neither major differences between responses in the various regions for this question.

Figure 30: Funding instruments banks intend to focus on in the next 12 months (top) and measures they aim to take regarding their deposits and current accounts in the next 12 months (bottom), autumn 2024



Source: EBA risk assessment questionnaire

Regarding the cost of market-based funding, RAQ results also show that more than 50% of the banks expect stable spreads in the next 12 months for nearly all instruments. This view is mainly driven by banks in the Southern and Western European countries and supported by banks from the Northern region. In the Eastern region the share of banks expecting stable spreads is between around 20% and 30% for the majority of instruments. Depending on the region, there are partially up to 20% of banks expecting a contraction in spreads, which is particularly driven by banks from the Eastern region. About 10% or less of the banks expect an increase. The percentage increases for NPS/HoldCo instruments, for which around 15% of the banks anticipate a widening of spreads.

3.2 Minimum requirement for own funds and eligible liabilities

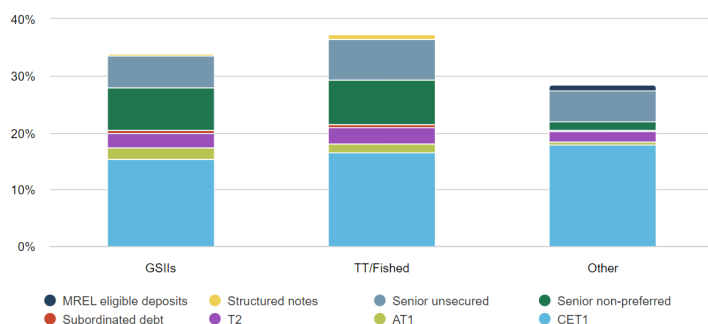
MREL shortfalls are nearly bridged, refinancing needs appear manageable, resolution planning is still evolving

In the EU/EEA, banks with a resolution strategy other than liquidation represent about 80% of the total assets of the banking sector. Resolution strategies ordinarily entail a MREL above minimum capital requirements, requiring banks to build loss-absorbing capacity, which generally involves the issuance of eligible instruments. From 1 January 2024, all resolution banks with an MREL requirement should disclose their MREL requirement and resources unless they benefit from an extended transition period. The most recent EBA MREL Dashboard⁴⁵ provides a list of the entities in question.

⁴⁵ See the [EBA's MREL Dashboard](#).

According to the EBA’s latest MREL Dashboard as of June 2024, the majority of resolution banks are in compliance with current requirements set by their respective authority. Nevertheless, 21 banks still in their transition period report a shortfall against their target totalling EUR 6.1 bn, or 0.1% of RWAs of the sample – of which EUR1.1bn is due over the next 12 months. This reflects the fact that under certain conditions institutions may be granted a longer transition period. In terms of stock, on average, MREL-eligible resources including own funds reached 33.6% of RWAs for G-SIIs, 37.2% of RWAs for Top Tier (TT) and fished banks,⁴⁶ and 28.4% of RWAs for other banks, of which 27.8%, 29.2%, 21.9% of RWAs are subordinated, respectively.

Figure 31: Total MREL resources by type of banks as % of RWA, Jun-2024



Source: MREL & TLAC reporting, reporting of MREL decisions

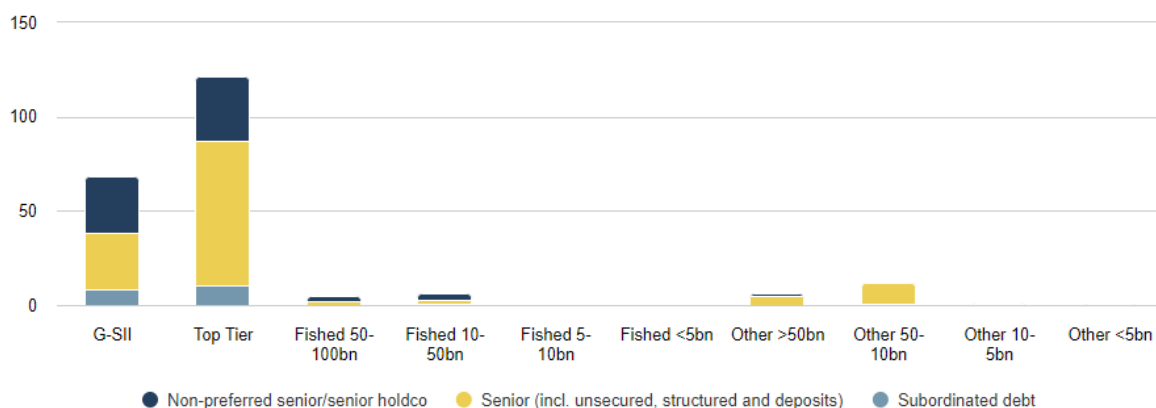
On top of any outstanding shortfall, banks in the sample reported EUR 220 bn of MREL instruments, other than own funds, which will become ineligible at the latest by the end of June 2025 as they will fall below the 1 year remaining maturity criterion. This is outstanding MREL funding that banks need to refinance over the next 12 months to keep their MREL levels (*ceteris paribus*). Overall, this represents 18.6% of the total MREL resources other than own funds. These figures show that, although most reporting banks already met their post-transition period MREL requirements by the end of 2023, issuance needs of MREL-eligible instruments continue to be significant, when taking the maturity criterion for eligibility into account.

Of the total EUR 220 bn, EUR 68 bn relates to G-SIIs (15.7% of their total MREL resources other than own funds), EUR 133 bn to TT and fished banks (20.7% of their total other than own funds) and EUR 18.6 bn to other banks (18.3% of their total other than own funds) (Figure 32).

While those refinancing needs – assuming that banks indeed aim to refinance them as such (calibration and RWAs could impact fundings up or downwards) –are significant, banks have presumably reflected them in their funding plans. Considering EU/EEA banks’ YtD primary market activity, which reached nearly EUR 250 bn senior preferred and NPS issuances as of Q3 2024, it seems reasonable to assume that they should once again be in a position to place similar volumes of instruments over the next 12 months, assuming no major deterioration in the market (see Chapter 3.1.).

⁴⁶ Top tier banks are resolution entities or group with total assets above EUR100bn and fished banks are resolution entities or groups below EUR100bn, but that the relevant resolution authority considers systemic – both categories are subject to subordination requirement.

Figure 32: MREL-eligible liabilities, by instrument, and by category of banks, for instruments with residual maturities between one and two years (EUR bn), Jun-2024



Source: MREL & TLAC reporting, reporting of MREL decisions

Box 6: State of resolution planning

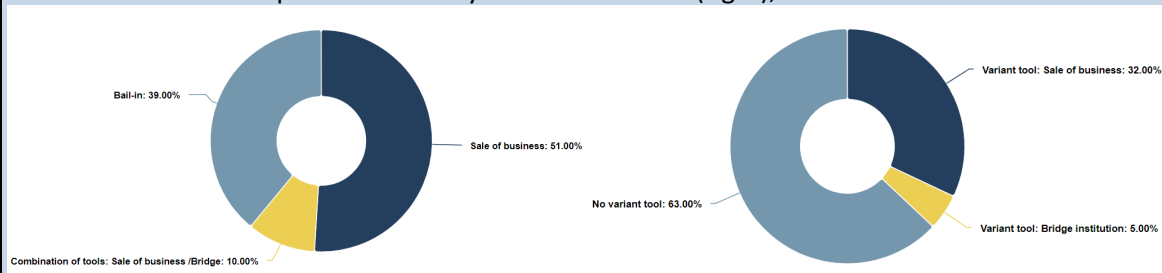
Resolution authorities submit MREL decisions to the EBA annually at end of May for decisions in force as of 1 May. The reporting covers decisions for 551 entities for which resolution authorities set MREL above own fund requirement, of which 357 are external MREL decisions and 194 internal MREL decisions. The below analysis focuses here on external MREL, considering a subsample of 339 banks (some were excluded on data quality grounds).

Bail-in is the preferred resolution tool in terms of RWAs while transfer is preferred in number of banks. The overview of the decisions received – and the resolution tools - shows that banks with bail-in as preferred tool represent about 93% of sample's RWA. However, in terms of numbers of banks the data shows that banks with transfer as preferred tool represent half of the population of resolution banks. This reflects the fact that the transfer tool is preferred for smaller banks (Figure 33 and Figure 34).

Optionality continues to be limited for banks with bail-in as a preferred tool. BRRD requires resolution authorities to prepare variant strategies in resolution plans to address different possible scenarios, in practice this can mean considering alternative resolution strategy and tools⁴⁷. Looking at banks with bail-in as preferred tool, 62.8% of the banks (75% in terms of RWAs) do not have a variant strategy, while 31.8% (22.9 % in terms of RWAs) have sale of business as a variant and 5.4% (2.2% in terms of RWAs) have bridge-bank as a variant.

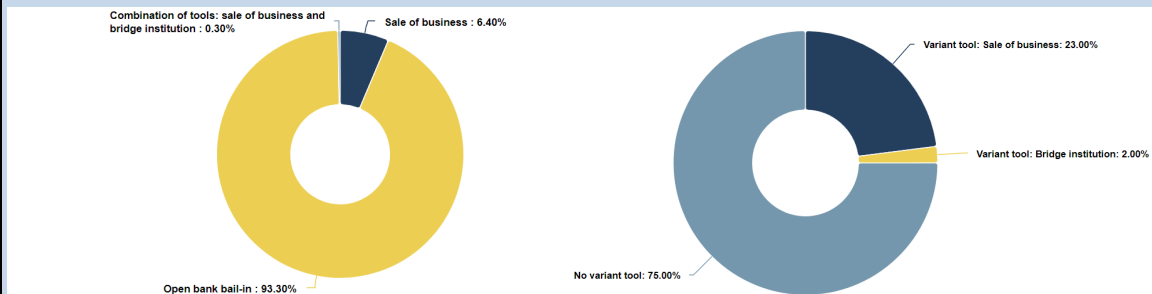
⁴⁷ EU Directive 2014/59/EU Article 10(7)j

Figure 33: Preferred resolution tools by the number of banks (left) and variant resolution tool for entities with bail-in as preferred tool by number of banks (right), Jun-2024



Source: MREL & TLAC reporting, reporting of MREL decisions

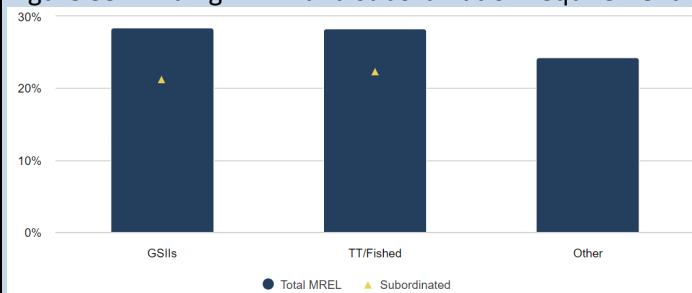
Figure 34: Preferred resolution tools by RWAs (left), and variant resolution tool for entities with bail-in as preferred tool by RWAs (right), Jun-2024



Source: MREL & TLAC reporting, reporting of MREL decisions

In terms of MREL levels, the binding requirement for 339 banks reporting external MREL requirement, including CBR, was on average 28% RWAs (28.5% for G-SIIs, 28.3% for Top-Tier and fished and 24.3% for other banks). These differences by types of banks are essentially reflecting different going concern capital and leverage requirements.

Figure 35: Binding MREL and subordination requirement by type of banks (% RWA), Jun-2024



Source: MREL & TLAC reporting, reporting of MREL decisions

Looking at MREL requirements by preferred resolution tool, the average binding MREL requirement including CBR is set at a level of 28.1% RWAs for bail-in and 23.0 % for transfer tool reflecting a lower recapitalisation amount and thus a lower overall MREL for transfer strategies. Other banks exhibit a lower MREL requirement than Top-Tier and fished due to the greater use of the transfer tool for these banks.

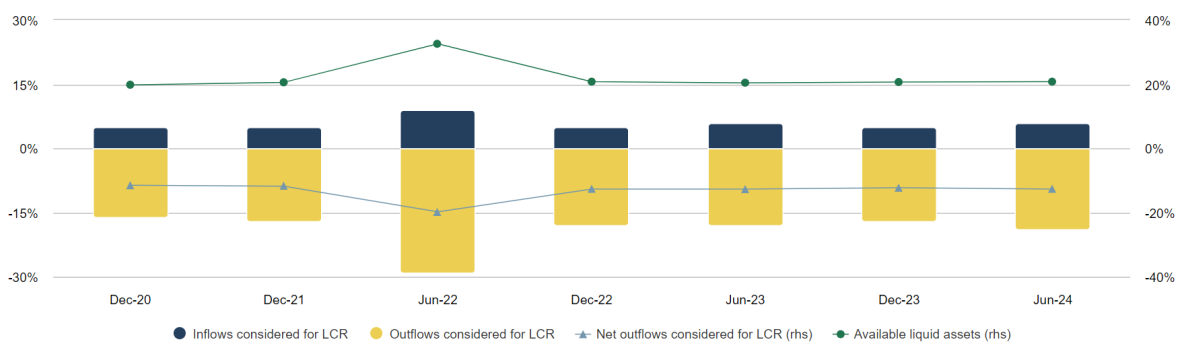
3.3 Liquidity positions

At the end of the year 2023, EU banks recorded an average weighted LCR of approximately 168%. Although there has been a decline in LCR since then, banks' available liquidity remains substantial and is higher compared to that observed at the same period last year. Key liquidity indicators continue to exceed regulatory minimums, thereby underscoring the robust liquidity position of EU/EEA banks. As of June 2024, the LCR was at 163.2% (+2.6 percentage points YoY), while the NSFR stood at 127.6% (+1 percentage points YoY).

Market volatility caused an increase in net outflows which drive LCR lower

The temporary increase in LCR, as reported in the second half of 2023, was mainly due to an expansion in available liquid assets and, to a lesser extent, a reduction in net outflows. The former was primarily driven by an increase in banks' Level 1 securities liquid assets, despite the reduction in cash and central bank reserves. The decline in the LCR in the first half of 2024 was primarily attributable to a notable rise in net outflows, amounting to 0.4 p.p. of assets. The increase in net outflows in the first half of 2024 is partially explained by the fact that the growth rate of deposits exempted from the calculation of the outflows decelerated. This was due to the lower migration of retail deposits from demand to term deposits, which are exempted from the outflows calculation. At the same time, liquid assets saw only a modest increase of 0.1%. As of June 2024, liquid assets accounted for 20.8% of total assets (20.7% as of December 2023), with net outflows standing at 12.7% (12.3% as of December 2023) (Figure 36).

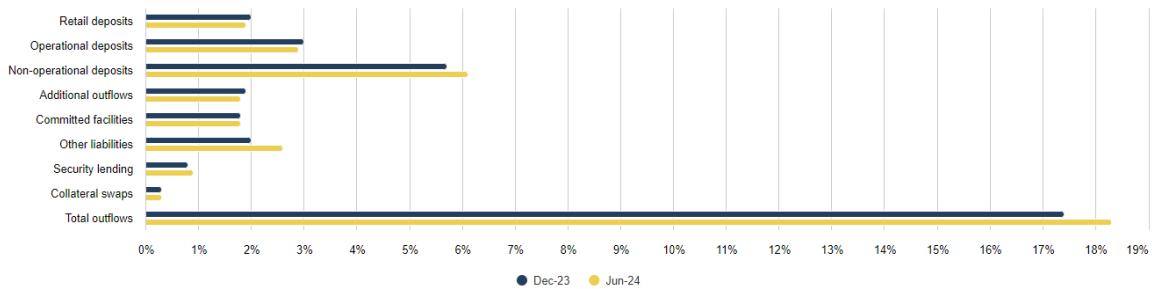
Figure 36: Main components of the LCR as a share of total assets (%)



Source: EBA Supervisory reporting data

The rise in gross outflows between December 2023 and June 2024 is mainly due to higher outflows from other liabilities and non-operational deposits. The market turbulence in April 2024, which was triggered by weaker-than-expected U.S. first-quarter GDP figures, led to a decline in asset prices and heightened volatility (see Box 2). In this context, the increase in outflows from derivatives (classified under 'other liabilities') was primarily driven by negative market values resulting from elevated market volatility. Moreover, outflows from secured funding transactions (classified under 'secured lending') rose, as counterparties likely demanded additional collateral to mitigate valuation risk (Figure 37).

Figure 37: Evolution of gross outflow requirement (post-weights), Jun-2024

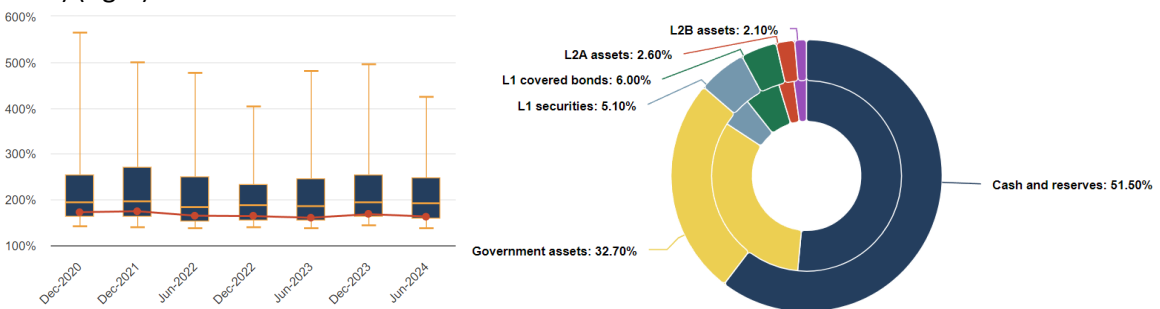


Source: EBA supervisory reporting data

The slight rise in liquid assets from June 2023 to June 2024 (+0.4% YoY) was attributed to an expansion in government assets, Level 1 covered bonds and Level 2B assets, despite the decline in cash and central bank reserves. Further withdrawals of deposits could exert additional pressure on cash and reserves. Notwithstanding these changes, cash and central bank reserves continued to represent the largest share of High-Quality Liquid Assets (HQLA), accounting for 52% (70% and 60% in June 2022 and 2023 respectively). Conversely, government assets and Level 1 covered bonds saw an increase in their share of total liquid assets, reaching 33% and 6% respectively by June 2024, up from 26% and 4% in June 2023 (Figure 38).

To maintain their liquidity buffers, EU/EEA banks are modifying their HQLAs by bolstering their holdings of government assets and Level 1 covered bonds. During the year 2023, the issuance of covered bonds reached multi-year highs, with banks being one of the primary investors in other banks’ covered bonds. This brought the share of covered bonds in HQLA up. Banks also increased their holdings in sovereign exposures, not least to lock in higher rates (see Chapter 2.1). The rising volume in sovereign bonds held by EU/EEA banks also provides them with the possibility of using those as collateral in repo funding. For the EA, this would accordingly be reflected in an uptick in bank activity within the repo markets. In July 2023, the ECB lowered the remuneration rate on minimum reserve requirements (MRR) from the deposit facility rate to 0%. This might have provided an additional incentive for EA banks to reduce their central bank deposits, besides the TLTRO-related repayments.

Figure 38: EU/EEA banks’ LCR weighted average and distribution (interquartile range, 5th and 95th percentiles) (left) and composition of liquid assets, Jun-2023 (outer circle) and Jun-2024 (inner circle) (right)

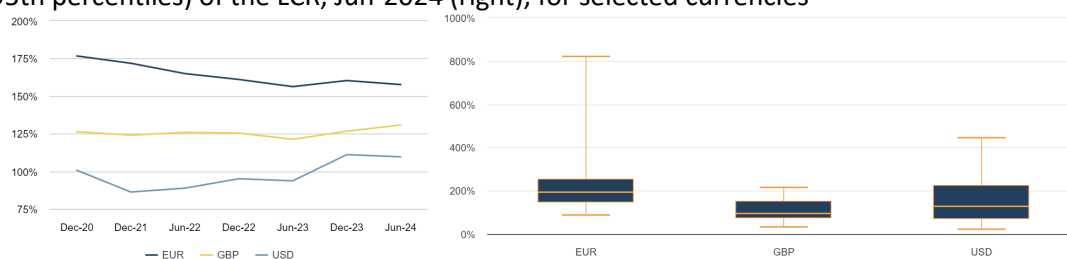


Source: EBA supervisory reporting data

Weighted average LCRs for USD is below 100%

Although the weighted average LCR for EU/EEA banks remains well above regulatory minimum levels, there are significant variations across currencies. On a yearly basis, the average EUR LCR exhibited an upward trend with values close to the overall LCR (EUR LCR of 156% as of June 2023 and 157% as of June 2024). Conversely, other major currencies were reported to be considerably lower. For example, GBP LCR value was reported at 131% in June 2024 (121% in June 2023). The USD LCR was reported even lower. As of June 2024, the USD LCR stood at 110%, a figure that compares favourably with previous quarters, when it was reported to be below 100%. A number of banks continue to report a USD LCR below 100%. The mismatch is particularly evident for some of the larger institutions. Low levels of LCR in one or several foreign currencies may create vulnerabilities in periods of high volatility, as the possibility for banks to raise funding in other currencies or to cover the risk of FX on markets may be undermined (Figure 39).

Figure 39: Evolution of weighted average LCR (left) and distribution (interquartile range, 5th and 95th percentiles) of the LCR, Jun-2024 (right), for selected currencies

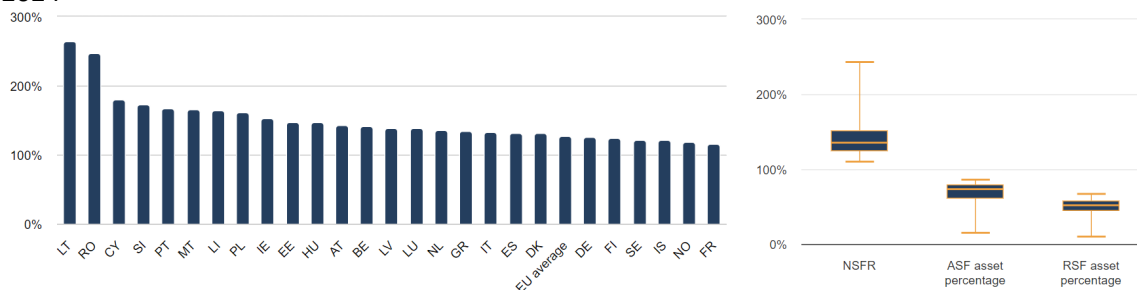


Source: Supervisory reporting data

The NSFR shows a comfortable position for banks in all jurisdictions

As of June 2024, the weighted average NSFR of EU/EEA banks stood at 127.6%, representing a marginal increase from the previous year (126.6%). The reported ratio was well above regulatory minimum for all banks and countries. In fact, several countries reported an average of more than 150% (Figure 40).

Figure 40: Net stable funding across EU/EEA countries (left) and distribution of EU banks' NSFR ratio, ASF and RSF asset percentages (interquartile range, 5th and 95th percentiles) (right), Jun-2024



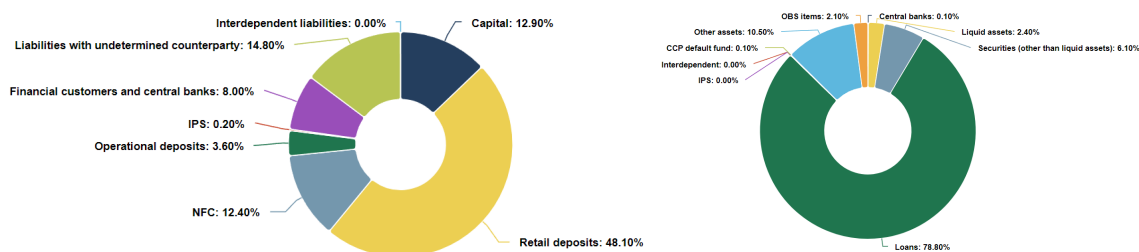
Source: Supervisory reporting data

The period of Central banks' accommodative monetary policies was supportive for banks in securing stable funding sources and complying with the NSFR. The gradual repayment of ECB's TLTRO-3 facilities and the comparatively higher costs associated with traditional funding sources - due to higher interest rates being passed on to deposit rates and higher yields in secured and

unsecured bank debt markets - contributed to an initial decline in NSFR from June 2022 to June 2023. As a consequence of banks substituting part of their TLTRO funding with market-based funding, the reported NSFR began to increase in the second half of 2023 and continued to rise throughout the first half of 2024.

Despite the move towards market-based funding, the principal components of the NSFR have remained largely unchanged over the past year. In the numerator, retail deposits form the largest share of bank's ASF, representing 48.1% of the total. Liabilities with unspecified counterparties constitute 14.8% of the total ASF. Capital accounts for 12.9%, funding from non-financial customers represents 12.4%, and funding from financial customers and central banks makes up 8%. With regard to the denominator, loans remained the primary component, representing 78.8% of the total required stable funding. (Figure 41).

Figure 41: Components of the NSFR ratio (ASF –left, RSF – right), Jun-2024

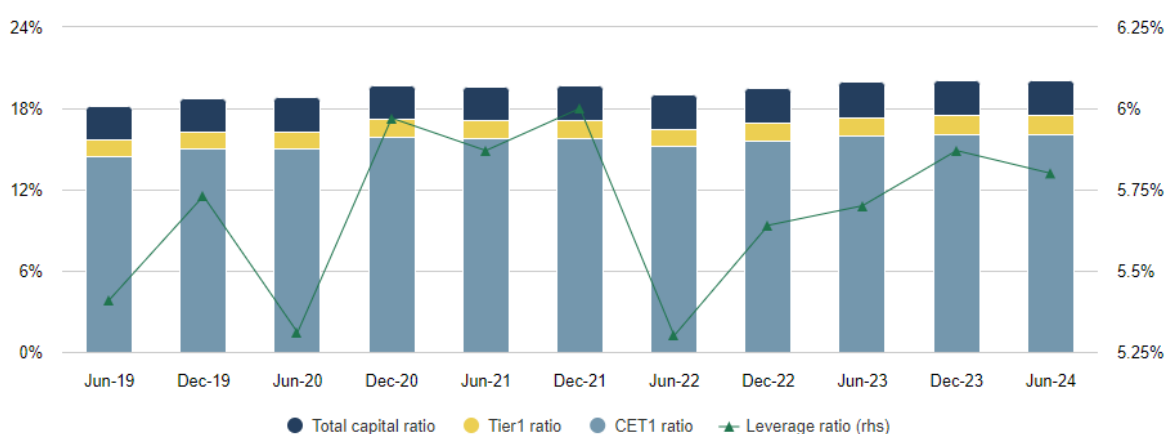


Source: EBA supervisory reporting data.

4. Capital and risk-weighted assets

Capital ratios have remained at record levels. The total capital ratio reached 20.1% as of June 2024, representing a YoY increase of 14 bps. This was primarily driven by the CET1 component, which rose by 12 bps to an all-time high of 16.1% as of June 2024. Overall, CET1 capital rose by about 4% from EUR 1.51 tn in June 2023 to EUR 1.57 tn as of June 2024. The increase in capital and respective ratios was supported by rising retained earnings and comparatively slower growth in RWA, even with increased payouts. Capital generation outpacing asset growth also led to a 11 bps increase in the leverage ratio to 5.8% as of June 2024 (Figure 42).

Figure 42: Capital ratios and leverage ratio, (%)

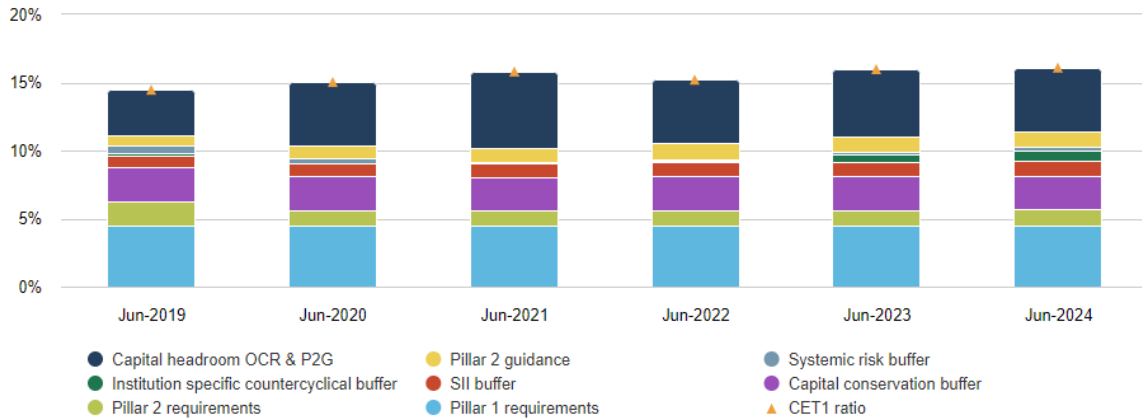


Source: EBA supervisory reporting data

Higher countercyclical capital buffers drive up banks' capital requirements

EU/EEA banks' CET1 headroom above overall capital requirement (OCR; Pillar 1, Pillar 2 and the combined buffer requirements) and pillar 2 guidance (P2G), declined slightly by 26 bps in the last year, still standing at a comfortable level of 466 bps as of Q2 2024. This was the result of higher CET1 capital requirements and guidance (OCR and P2G increased by 37 bps) which outpaced the increase in the CET1 ratio (12 bps). Total OCR and P2G reached 11.4% in June 2024. The increase in capital requirements was mainly driven by higher combined buffer requirements (32 bps) and to a lesser extent by higher Pillar 2 requirements (4 bps) and P2G (1 bp) (Figure 43).

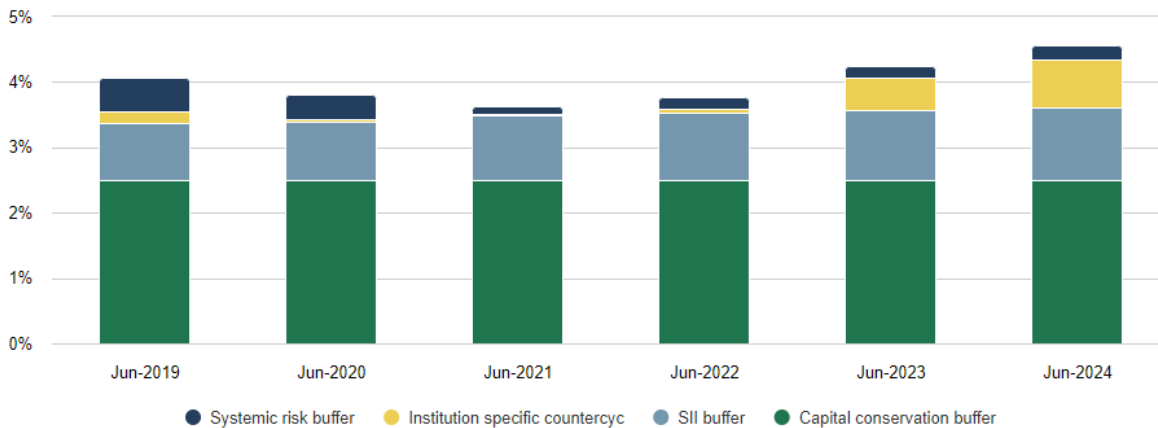
Figure 43: Trends in capital requirements and CET1 ratio, (%)



Source: EBA supervisory reporting data

The main driver behind higher combined buffer requirements in the last year was the countercyclical capital buffer, which increased by an average of 23 bps and stood at 0.73% of total RWA as of June 2024. The average capital buffer for systemically important institutions increased by 5 bps in the last year and amounted to 1.12% of total RWA as of June 2024. The systemic risk buffer element increased by 4 bps in the last year to 0.22% of total RWA (Figure 44).

Figure 44: Trends in capital buffer requirements, (%)

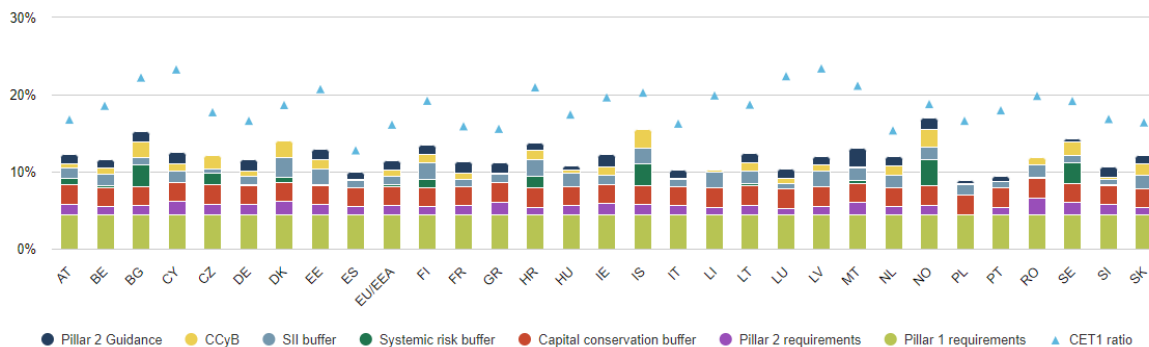


Source: EBA supervisory reporting data

The increase in capital requirements was notable across banks in most countries except for banks in the Czech Republic, which reported a decrease in CCyB rates. Banks in Croatia, Finland, Hungary and Lithuania reported increases in capital requirements of close to 100 bps or more in the last year. While the increase in CCyB rates was the main driver for banks in Croatia and Lithuania, banks in Finland and Hungary reported other elements of the combined buffer requirements to have increased. Compared to the EU/EEA average, banks in Bulgaria, Denmark, Iceland, Norway and Sweden stand out with higher capital requirements, mainly due to the more active use of macroprudential capital buffers in those countries (Figure 45). With countercyclical and systemic

risk buffer requirements in some countries expected to be phased-in towards the end of 2024 or in 2025⁴⁸, buffer requirements are set to increase further.

Figure 45: Capital requirements and CET1 ratio by country (%), Jun-2024



Source: EBA supervisory reporting data

Strong profitability boosted organic capital generation and shareholder remuneration

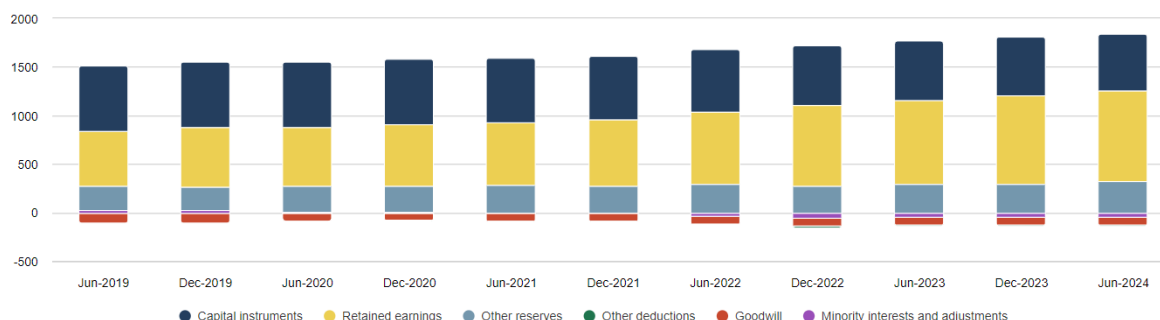
Solid capital buffers and high profitability helped European banks to distribute record dividend payouts and share buybacks in 2023 (EUR 68 bn representing 52% of year-end 2022 profits). Banks' plans for the year 2024 indicate a further rise with planned payouts reaching almost EUR 90 bn (around 50% of banks' profits for the year 2023⁴⁹).

CET1 capital resources have equally benefitted from strong profitability. Total CET1 capital increased by EUR 60 bn or 4% in the last year and stood at EUR 1.6 tn in June 2024. The increase was almost entirely driven by organic capital generation. Retained earnings have increased by EUR 59 bn or 7% and reserves have increased by EUR 33 bn or 11% in the last year. This increase was partly offset by a decline in capital instruments (i.e. paid-in capital and share premiums) and higher deductions and adjustments. The decline in capital instruments of EUR 19 bn or -3% in the last year represents a continuation of the trend observed in recent years (e.g. -3% in the year to June 2022; -5% in the year to June 2023), reflecting the impact of share buyback programmes that many banks have put in place. As a result, the share of capital instruments has declined to 32% of the main sources of CET1 capital while retained earnings represent 50% as of June 2024 (Figure 46).

⁴⁸ https://www.esrb.europa.eu/national_policy/ccb/html/index.en.html

⁴⁹ For a more detailed analysis on yearly evolution of distribution of profits please see EBA July 2024 Risk Assessment report

Figure 46: CET1 components and adjustments (EUR bn)

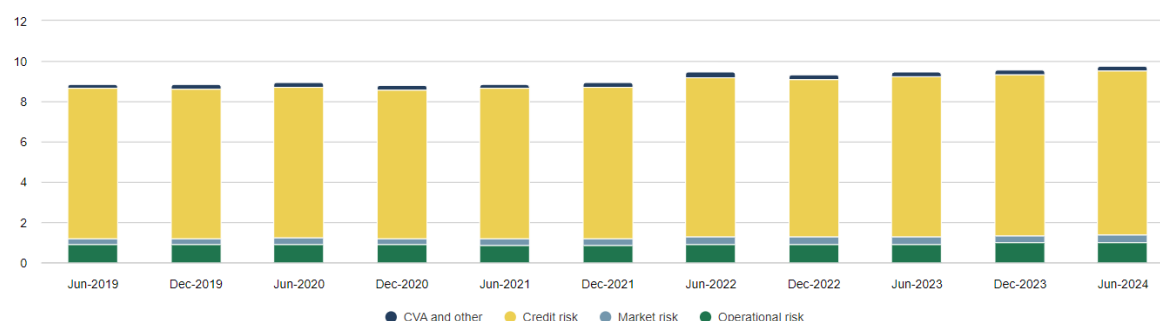


Source: EBA supervisory reporting data

Risk-weighted assets increase reflects a changing credit risk profile

Total RWAs increased by 3% in the last year and stood at EUR 9.8 tn in June 2024. The increase was mainly due to credit risk which increased by EUR 240 bn or 3%. Operational risk increased by EUR 75 bn or 8% and market risk by EUR 4 bn or 1% in the same period. The increase was partly offset by decreasing credit valuation adjustment and other risks (EUR 15 bn or -6%). Credit risk remains the largest RWA segment for banks, accounting for 84% of total RWA, followed by operational risk (10%), market risk (4%) and CVA and other risks (2%) (Figure 47).

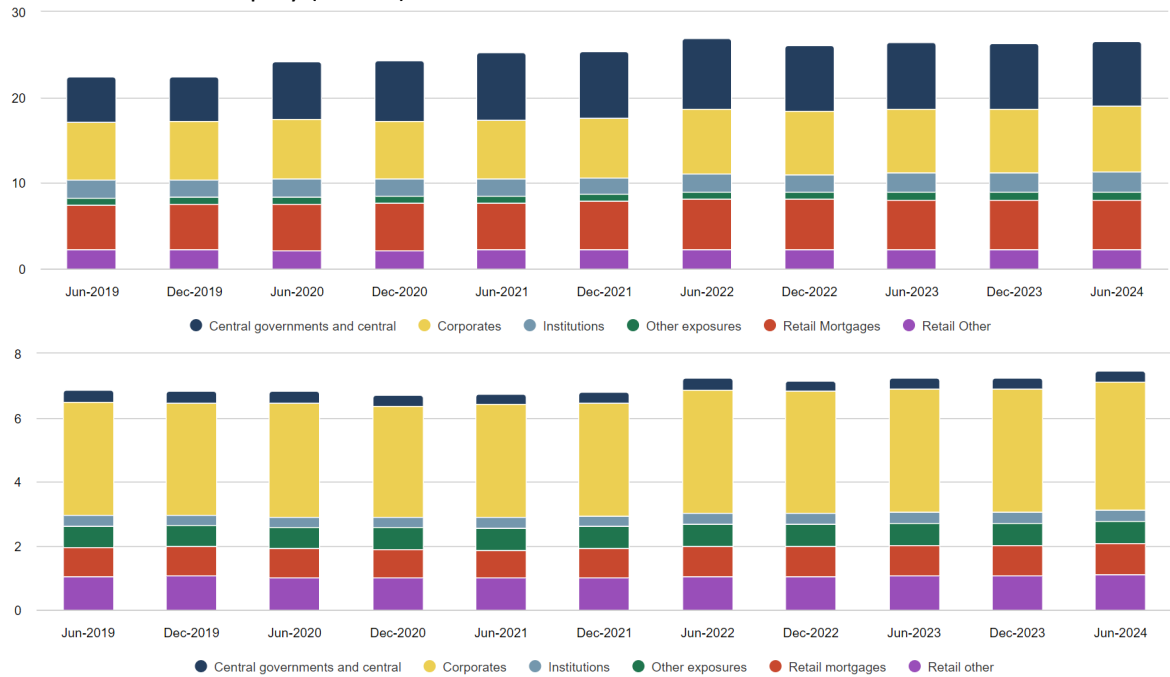
Figure 47: RWA by type of risk (EUR tn)



Source: EBA supervisory reporting data

Comparing credit risk RWA movements with trends in underlying credit exposures reveals changes in banks' risk profile (see Asset Chapter 2 on asset volume developments). Total credit risk exposures increased by EUR 66 bn or 0.3% in the last year, which contrasts with the 3% increase in credit risk RWA. The overall trend was driven by an increase in exposures to corporates (EUR 190 bn or 2.5%) and to institutions (EUR 86 bn or 3.8%). Retail mortgages, on the other hand, decreased by EUR 16 bn or -0.3% and exposures to central governments and central banks by EUR 237 bn or -3.0% in the last year, with the latter mainly driven by declining central bank exposures (Figure 48).

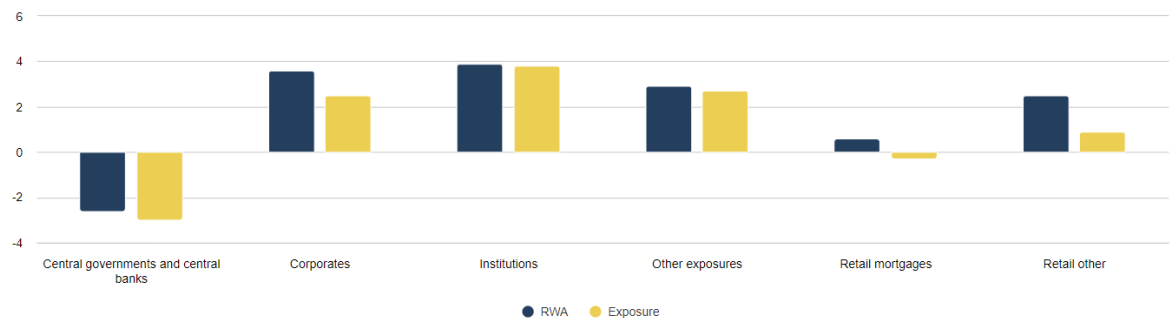
Figure 48: Exposures (top) and credit RWA (bottom) for selected exposure classes, excluding securitisation and equity (EUR tn)



Source: EBA supervisory reporting data

Diverging trends for RWA vis-à-vis exposure values indicate a change in risk profile for several exposure classes. Focusing on corporates and retail exposures, the most relevant exposure classes for RWA purposes, a trend towards higher risk can be observed. For corporate exposures, the RWA increase of 3.7% outpaced the 2.5% increase of the underlying exposures, resulting in a higher average risk weight for the remaining stock of corporate exposures. Similarly, for retail mortgage exposures, the RWA increase of 0.6% compares with a -0.3% decrease in 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 2.5% standing in stark contrast to the 0.9% increase in underlying exposure value. As a result, the average risk weight density for banks’ total credit risk portfolio rose by 67bps to 28.1% in June 2024 (27.4% in June 2023) (Figure 49).

Figure 49: YoY changes in credit risk RWA and exposures for selected exposure classes (%), Jun-2024



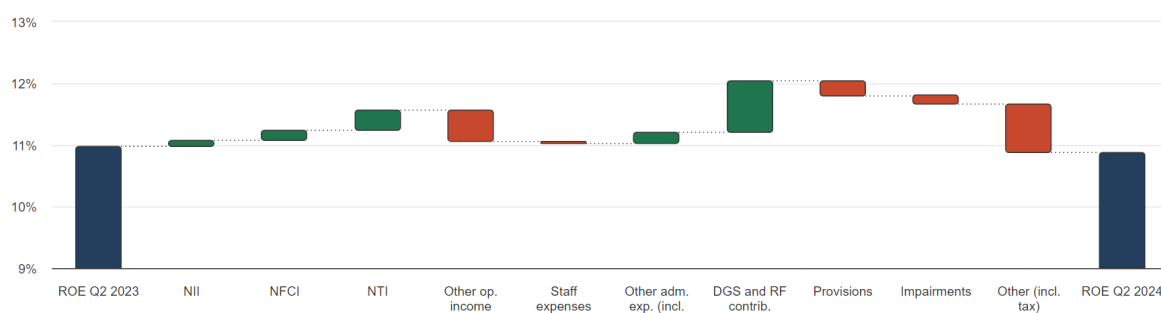
Source: EBA supervisory reporting data

5. Profitability

Flattening RoE YoY amid fading support from net interest income

The RoE of EU/EEA banks remained nearly stable from June 2023 to June 2024, recording only a 10 bps decrease to 10.9%, and very close to the highest levels reported by the sector. While the increase in NII was previously a key determinant for the rise of banks' RoE, in recent quarters its additional contribution dropped to just 10bps (YoY change). The most substantial positive factor, accounting for 80bps, was the significant reduction in contributions to DGS and resolution funds, as these funds should have reached their target levels by the beginning of 2024. Other expenses, including taxes, had the most negative impact, reducing RoE YoY by 80bps. This is likely attributable, at least in part, to the heightened taxation on banks – also referred to as 'windfall taxes' – implemented in certain Member States in response to the substantial profits recorded in the past year due to higher interest rate environment. Rising NFCI as well as NTI and declining other administrative expenses made slightly positive contributions to the YoY change of the RoE. Conversely, YoY changes in other operating income, provisions and impairments had negative impacts (Figure 50).

Figure 50: RoE and contribution of the main profit and loss items to the RoE's YoY change, comparison between Jun-2023 and Jun-2024 (%)



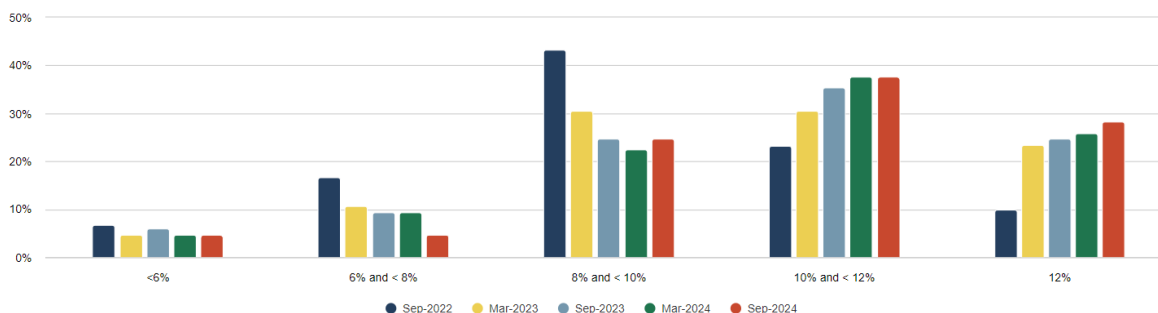
Source: EBA supervisory reporting data

Despite historically high level of profitability, EU/EEA banks' RoE on average currently tends to be below their CoE. Nearly 70% of banks report CoE higher than 10%⁵⁰ (Figure 51). The elevated CoE is not solely the result of high interest rates, but likely also reflects broader macroeconomic and geopolitical risks, along with specific sector-related risks⁵¹. It is similarly reflected in banks' valuations, with on average price to book (PtB) multiples below one (Figure 65).

⁵⁰ For comparison reasons, using a CAPM based calculation, NYU Stern data from Aswath Damodaran provides CoE of around 11% as of January 2024, for a sample of 112 European money centre banks (i.e. rather large banks). See under [NYU Stern, Discount rate estimation - Costs of Capital by Industry Sector – 2. Europe](#); data extract as of September 2024. Similarly, market analyst reports widely confirm that EU banks' CoE are above 10% as of August / September 2024.

⁵¹ According to [NYU Stern, Discount rate estimation - Costs of Capital by Industry Sector – 2. Europe, money centre banks have one of the highest CoE.](#)

Figure 51: EU/EEA banks' estimates of their cost of equity, (%)

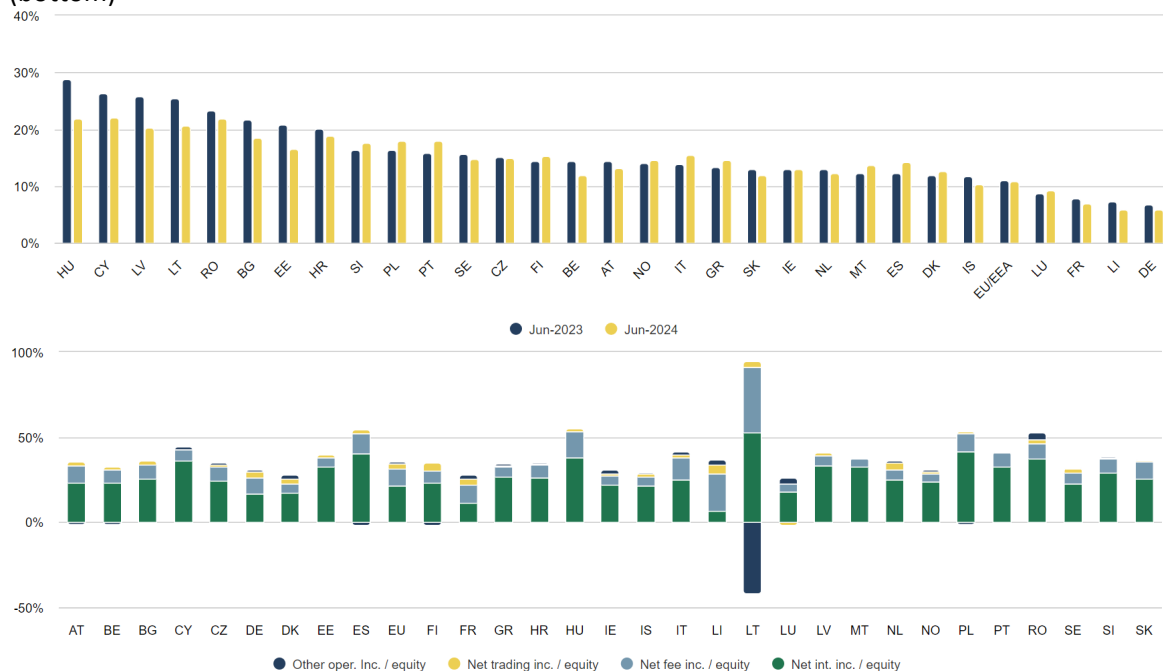


Source: EBA Risk Assessment Questionnaire

NII is the key component in EU/EEA banks' RoE, reaching around 60% of EU/EEA banks' total net operating income⁵². There is, however, notable dispersion across Member States regarding their RoE levels, largely due to differences in NII. The trend in NII is influenced by several factors, including interest rate levels in the jurisdictions to which banks are exposed to and aspects like asset and liability composition and their repricing periods. Banks, for example, with exposures to CEE countries benefitted from the higher interest rates in these currencies. Other countries, such as the Baltic countries or Cyprus, presumably benefitted from the faster and / or stronger repricing of the asset side vis-à-vis the slower and / or more muted repricing of their liability side. The contribution of interest income from central bank deposits might also have positively contributed to some banks' RoE last year, despite the substantial decline in central banks' deposits (see Chapters 2.1 and 3.3). However, respective banks appear to experience greater pressure on their profitability due to central bank interest rate cuts and generally decreasing interest rates (see Figure 2 on currency interest rate levels). Banks in other countries, in contrast, still reported an increase in RoE, as they were presumably not yet hit to the same extent by the decline in interest rates. Nevertheless, NII developments depend on many other parameters, such as the asset and liability mix, prevalence of business models, and ability to maintain deposit betas low. The significant impact of NII on RoE is evident through a revenue composition analysis, which shows that countries with elevated profitability tend to have a higher ratio of NII to equity (Figure 52).

⁵² See the [EBA's Risk Dashboard for shares of contributions to profitability of all key components](#)

Figure 52: Evolution of RoE by country (top) and revenue composition by country, Jun-2024 (bottom)



Source: EBA supervisory reporting data

In the past, banks have demonstrated their ability to increase fee income when necessary

Fee income, the second most important revenue contributor reaching around 30% of total net operating income, has risen by around 8% YoY. Asset management and related products remained the key component (share of ca. 34% in total fee income), followed by payment services (share of ca. 28% in total fee income), which is similar to last year⁵³. When calculated as share of related underlying volume, asset management fees had for instance risen from 45bps in 2021 to 49bps in 2022 and declined in 2023 and 2024 to now 44 bps. Current account related fees grew from 13 bps in 2021 to 15 bps in 2023, before remaining flat this year. The levels of these fee components widely differ among countries. However, looking on the development of these fee components, many countries show similar trends with rising fee levels in recent years (Figure 53).

⁵³ Asset management and related products include for instance “Central administrative services for collective investment” and “Customer resources distributed but not managed” as reported in FINREP. Payment services include for instance fees for current accounts, transfers, and card payments.

Figure 53: Evolution of asset management fee income as share of assets under management by country and on EU/EEA level (top), and current account related fees as share of current account / overnight deposit volumes by country and on EU/EEA level (bottom) ⁵⁴



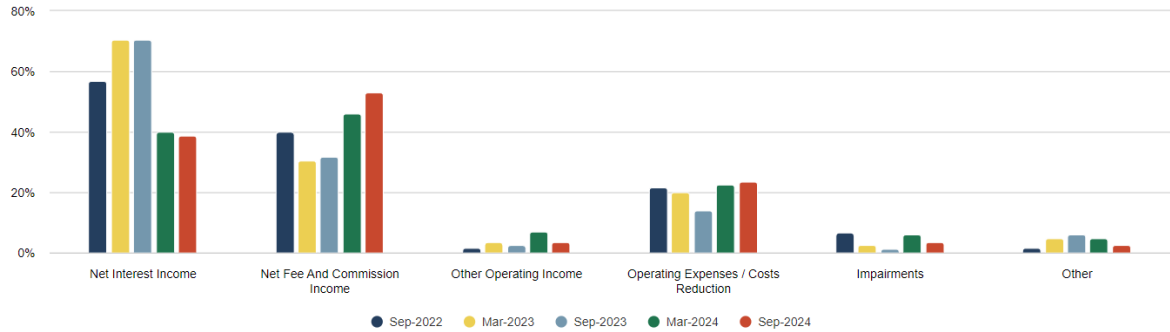
Source: EBA supervisory reporting data

In sight of the policy rate cuts across the continent, the pressure on NII is expected to intensify, incentivising banks to shift their attention to other sources of income to support their profitability levels. This is similarly reflected in the outlook through the RAQ results as a substantially smaller number of banks, compared to the previous two surveys, rely on NII to boost their profitability. At the same time, according to RAQ, banks increasingly prioritise to enhance their net fees and commission income while reducing their cost functions. This shift demonstrates a diversification of banks' activities in the expectation of their RoE growth and shows that banks are dealing with the possible impact of lower rates. However, fee income faces pressure not only from competition within the banking sector but also from BigTech and Fintech firms. Depending on potential synergies with these firms, this an area that banks could benefit. It may also come under pressure due to other developments, such as the potential introduction of central bank digital currencies (CBDC), depending on their concrete design ⁵⁵. RAQ results further indicate that banks are not aiming to raise the deposit and current account related fees (Figure 30). Despite the shifting trends in NII dynamics, which have led 60% of banks to have a bleak outlook on profitability growth, 40% of banks still anticipate an improvement within the next 6 to 12 months (Figure 54).

⁵⁴ The fee income component is Q2 annualised data for each of the years

⁵⁵ On CBDCs and their potential impact on banks, see for instance the [last edition of the Risk Assessment Report](#).

Figure 54: Banks’ targets for profitability increase in the next 6 to 12 months



Source: EBA Risk Assessment Questionnaire

Rise in costs below average inflation rate

Overall cost rose by less than 1% on an annual basis. Staff expenses remained the main component in total expenses, followed by other administrative expenses. Staff and other administrative expenses show major differences among countries, contributing to a relatively wide dispersion of overall costs and expenses. Measured in relative terms as share of equity, staff expenses tend to be lower in Nordic countries, but also several other countries fare favourably in this respect. For Nordic countries this is not least due to a presumably higher level of automation and digitalisation. This may also explain why other administrative costs are typically the lowest in Nordic countries (Figure 55).

Figure 55: Evolution of key components of costs and expenses as share of equity, EU/EEA level, (top) and by country, Jun-2024 (bottom)

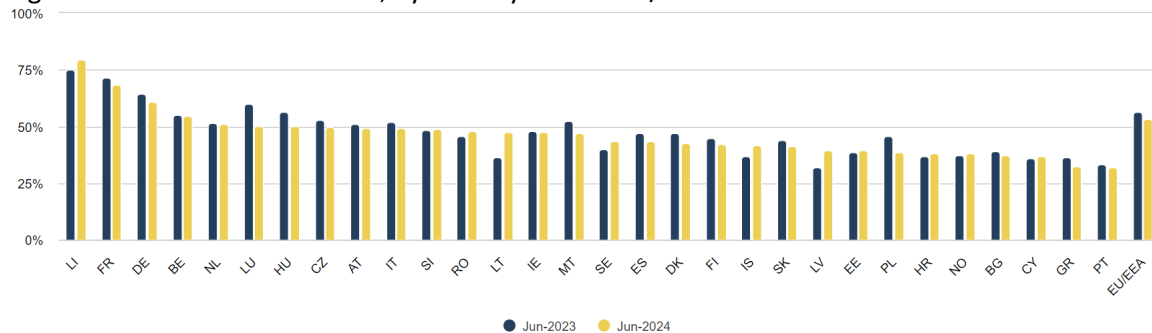


Source: EBA supervisory reporting data

Due to higher increase in revenues than in costs, EU/EEA banks’ cost-to-income ratio declined on a yearly basis from 57% to 53%. Most of the countries similarly saw a decline in the cost-to-income ratio. However, there are also several Member States that saw a rise. Notably, several of these

countries have relatively high administrative costs. In other cases, the rise seems to be also driven by a decline in revenues. The average rise in costs of around 1% compares favourably with the average YoY inflation for the EU as of June 2024, which stood at around 2.6%. Assuming costs would have increased by the average EU inflation rate, banks' RoE would be around 40bps lower and their cost-to-income ratio would be more than 1p.p. higher.

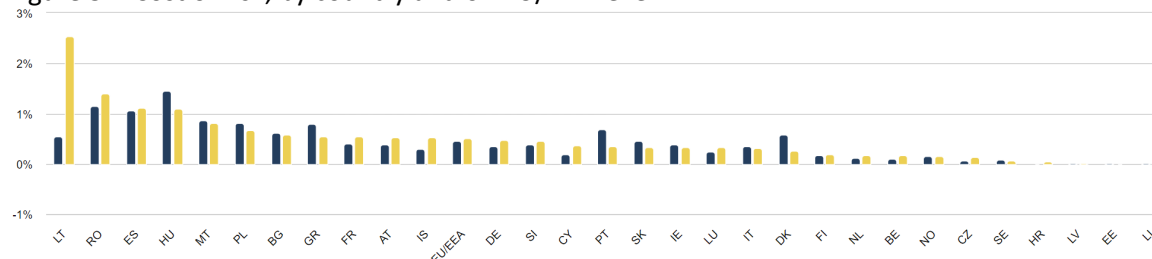
Figure 56: Cost-to-income ratio, by country and on EU/EEA level



Source: EBA supervisory reporting data

The CoR increased annually in the EU/EEA, from 45 bps to 51 bps. It stayed within the range of approximately 40 bps to 50 bps, a trend seen since June 2021, with the exception of Q1 2024, when CoR rose to 56 bps (Figure 64). According to RAQ, most banks expect these provisioning levels to remain below 50 bps. On country level there was still some major divergence, with some country averages reported notably higher than a year earlier. Banks in most of the Baltic as well and Nordic countries reported the lowest CoR (Figure 57).

Figure 57: Cost of risk, by country and on EU/EEA level⁵⁶



Source: EBA supervisory reporting data

Box 7: Business model plays a prominent role in determining profitability

The evolution of profitability is also subject to discrepancies between business models⁵⁷. Cooperative and cross-border banks have experienced a decrease in their RoE since 2023 (-1.5 pp and -0.3 pp respectively). This was similar for corporate-oriented banks (-0.2pp). The latter banks additionally struggle to catch up with their peer's RoE level, standing at 5.9% in 2024, and being in many of the past years below other banks' profitability. This is not least due to the low level of NII of corporate banks. This comparably low NII is presumably due to pressure from deposit costs⁵⁸.

⁵⁶ Data for LT skewed higher due to the sample, which include rather high-risk banks and not the biggest national lenders.

⁵⁷ See on the business models applied, including their further description, the [EBA staff paper on the identification of EU bank business models](#) from June 2018.

⁵⁸ See Box 7 of the [2023 Risk Assessment Report](#) which shows that betas of NFC deposits are higher than those of households.

Furthermore, NFCI is significantly lower at corporate-oriented banks than other business models (Figure 58).

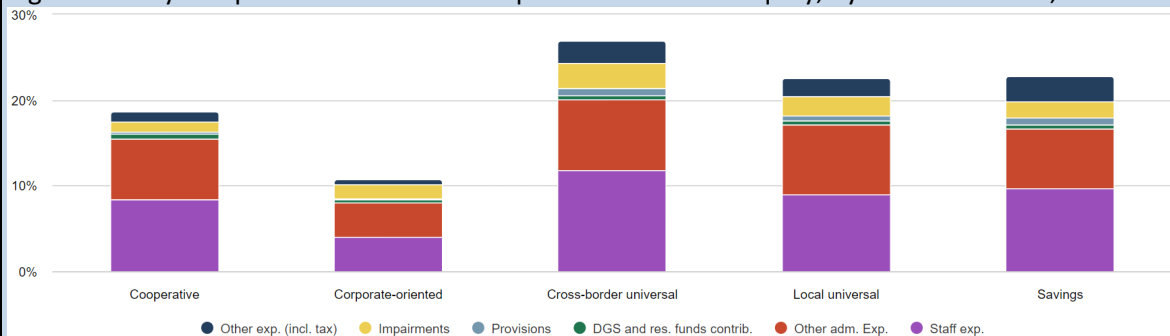
Figure 58: Evolution of RoE by business model (top) and RoE and its key income components as share of equity by business model, Jun-2024 (bottom)



Source: EBA supervisory reporting data

At the same time, corporate-oriented banks report the lowest levels of costs, presumably because they are more efficient amid their wholesale business focus. However, despite being more efficient, this does not compensate for their lower revenues. The results also show that cross-border universal banks have the highest cost, driven by staff expenses. Their other administrative expenses and impairments are also comparatively high. Higher staff costs and other administrative expenses might indicate that operating a cross-border bank implies higher cost base. The higher impairments presumably reflect their wider geographical dispersion, which presumably also includes exposures in countries with elevated cost of risk. Yet, they manage to compensate this with a higher revenue base. Overall, cross-border universal banks report close to the overall average RoEs (Figure 59).

Figure 59: Key components of costs and expenses as share of equity, by business model, Jun-2024



Source: EBA supervisory reporting data

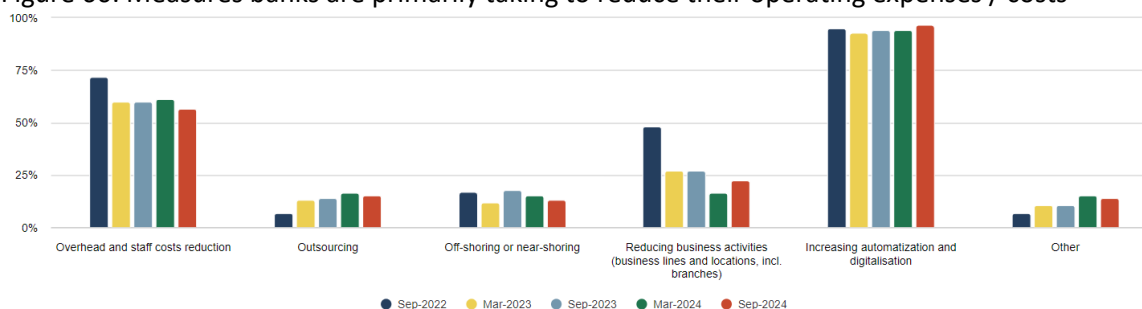
A topic particularly in focus in recent years were taxes, as there were several Member States introducing new sector specific taxes, which often included the banking sector, and were often

referred to as ‘windfall taxes’⁵⁹. Data indicates that banks’ tax expenses rose in many countries since 2022. Taking the simple average of the country specific results, taxes and similar payments rose by around 2 p.p. between 2022 and 2024 (tax and similar payments as share of profits before these payments⁶⁰).

Banks continue to invest in digitalisation and automatisisation to limit long-term cost growth

Looking forward, RAQ results show that banks keep on targeting automatisisation and digitalisation to reduce their operating expenses. This has a detrimental effect in the short-term profitability capacity as any investments towards automatisisation and digitalisation add to immediate expenses, as do other ICT related expenses. The reduction of overhead and staff costs remains banks’ second most important measure to reduce their operating expenses, but with less relevance compared to previous years (56% agreement now vs. 80% agreement in 2021). Amid the relatively high staff expenses at cross-border universal banks, one might have expected that a particularly high share of them might aim for such cost reduction measures (see [Box 7](#)). However, the share of cross-border universal banks aiming for overhead and staff cost reductions is only around 10p.p. above the share of the full sample of banks in the RAQ results. This may indicate limited cost saving potential in this area for those banks (Figure 60).

Figure 60: Measures banks are primarily taking to reduce their operating expenses / costs



Source: EBA Risk Assessment Questionnaire

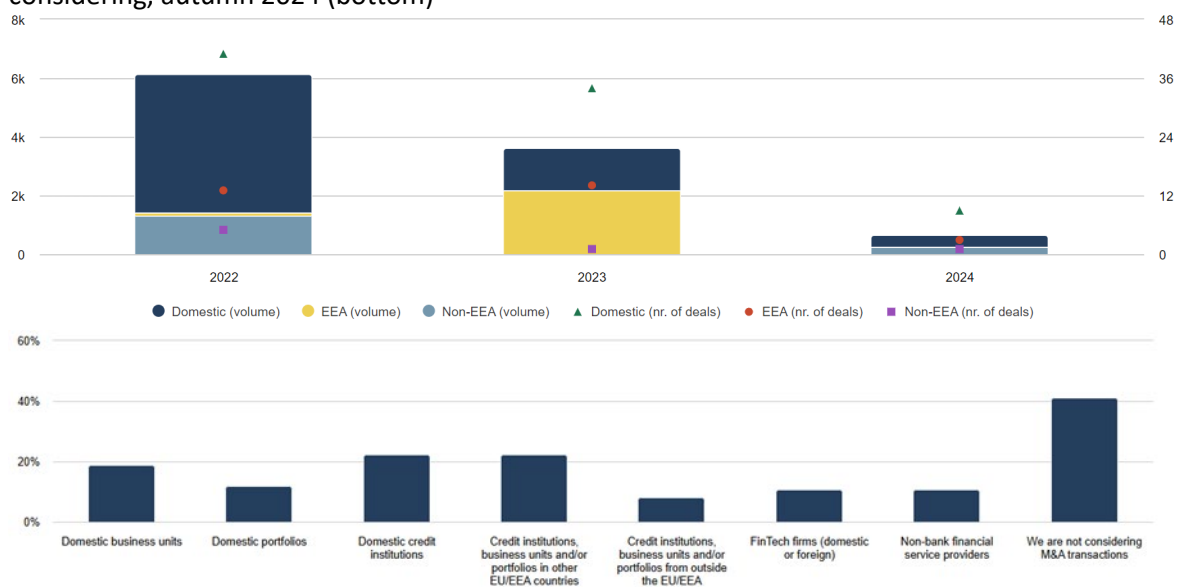
During the last years, there has been a low number of bank related M&A transactions in the EU/EEA. Among these transactions domestic ones have the biggest share, followed by M&A within the EEA. Transactions with parties outside the EEA are even more rare. This confirms that the higher level of attractiveness of EEA internal M&As, than for transactions outside the EEA. It is an aspect, which is similarly reflected in the latest RAQ results on banks’ plans for M&A transactions. This might also be affected by the cost related issue described above, but also due to regulatory or similar hurdles and challenges⁶¹. (Figure 61).

⁵⁹ See also the [EBA’s Risk Assessment Report from December 2023](#).

⁶⁰ As this data includes taxes on profit and loss from continuing and discontinued operations, as well as other taxes and duties it needs to be stressed that the change from taxes can also result from other parameters, including the impact from deferred tax assets and similar, or it can be due to tax payments being particularly low in 2022 due to some extraordinary effects.

⁶¹ Previous RAQ results showed that besides not envisaging M&A overall and lack of opportunities, the cost aspect was a key reason for banks not considering M&A transactions. See the [EBA’s Risk Assessment Questionnaire – Summary of Results from autumn 2022](#) (question 6, including its history).

Figure 61: EU/EEA banking sector related M&A transactions since 2022 (per year in 2022 and 2023, and YtD 2024), number and volume in EUR m (top)⁶² and M&A measures that EU/EEA banks are considering, autumn 2024 (bottom)



Source: S&P Capital IQ, and EBA assumptions and calculations, EBA Risk Assessment Questionnaire

Box 8: EU vs US banks' differences in profitability and potential links to their valuation

Over the past 6 years, US banks have generally been more profitable than those in the EU. Only in 2023 EU/EEA banks showed higher profitability, amid a decline of US banks' RoE. The latter seems to be driven by a temporary contraction of fee and other income as well as a spike in expenses, which is mainly due to HNWI contributions amid the Silicon Valley Bank induced events last year⁶³. However, US banks' profitability slightly surpassed EU/EEA banks' again in 2024. Likewise, US banks have consistently reported higher return on assets (RoA). This box explores how various elements of banks' RoE might account for the consistent advantage of US banks.

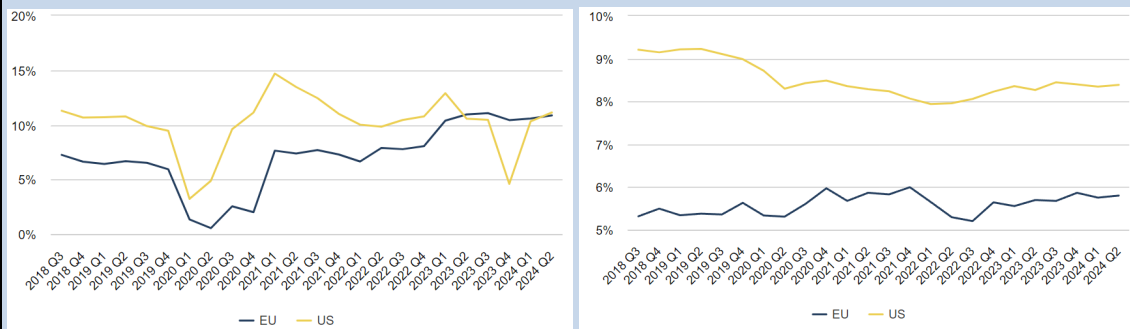
One parameter in the analysis is equity, as a starting point, as the RoE's denominator. Using capital as a proxy for comparing this parameter, data shows that EU/EEA banks' leverage ratio has been constantly below that of their US peers, which implies that US banks' have higher capital levels relative to their assets⁶⁴. This suggests that US banks need higher earnings to achieve comparable or superior RoE compared to EU/EEA banks. (Figure 62).

⁶² Completed transactions – including whole company, minority, branches and assets acquisitions and / or mergers – involving a bank in the EEA as geography. Private equity deals are included. The volume related information / data is only available for some of the transactions, for which reason the number of deals might be considered as more relevant.

⁶³ See the [Federal Reserve Bank of New York's "Quarterly Trends for Consolidated U.S. Banking Organizations"](#) as of Q2 2024 and the [Q4 2023 edition](#) for the explanation of the FDIC related contributions that US banks had to consider as expenses latest by the end of last year.

⁶⁴ The CET1 ratio is, in contrast to the leverage ratio, higher for EU banks compared to their US peers. This can be due to different levels of riskiness of their exposures and other risks (market risk, operational risks, etc.), or to the application of internal models.

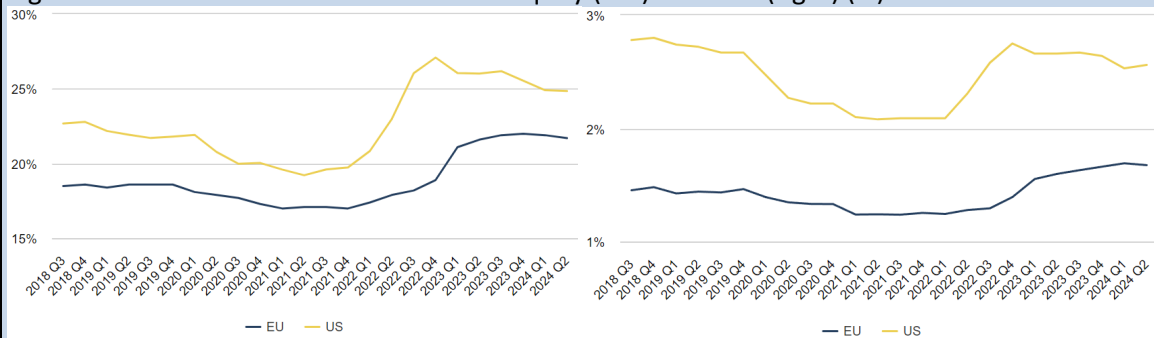
Figure 62: EU vs. US banks’ RoE (left) and leverage ratio (right) (%)



Source: Federal Reserve Bank of New York and EBA supervisory reporting data, EBA calculations⁶⁵

Looking at the two of the most important income components of the numerator of the RoE, both NII as well as fee and other income, measured as a share of equity, tend to be higher for US banks than EU banks. US banks’ NIM is consistently higher, influenced by the pricing of assets and liabilities, which depends for instance on their product mix and pricing convention (variable or fixed rate loans, high yielding vs low yielding business, etc.), deposit betas, client structure, competition in specific segments and sectors, but also the interest rate levels as set by the central banks (Figure 63).

Figure 63: EU vs. US banks’ NII as share of equity (left) and NIM (right) (%)

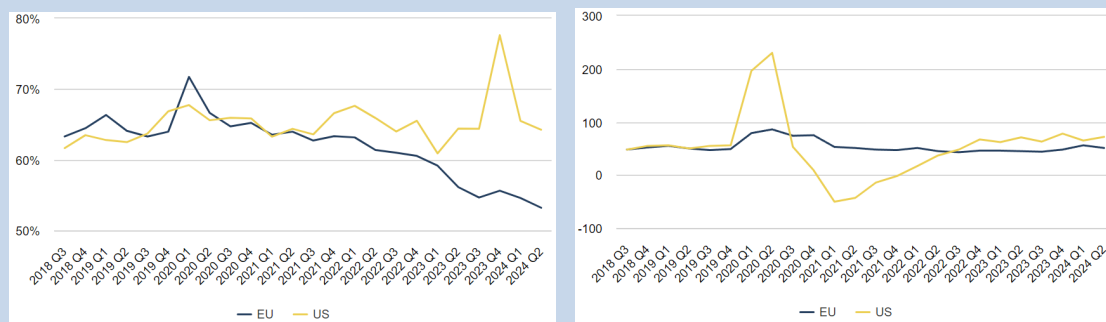


Source: Federal Reserve Bank of New York and EBA supervisory reporting data, EBA calculations

The cost efficiency ratios paint a more mixed picture though. The cost-to-income ratio of EU/EEA banks declined notably in recent years, in contrast with the US banking sector, where it has been on a slightly upward trend. As a result, US banks’ CIR has been above the EU one since 2021. At the same time the picture of cost of risk was rather mixed and significantly more volatile, especially for US banks⁶⁶. Since the pandemic, cost of risk in US banks was above their EU peers, while over the last 6 years the average cost of risk for EU banks was marginally higher than US banks (54 bps vs 53 bps respectively) (Figure 64).

⁶⁵ For the US data the [Federal Reserve Bank of New York’s “Quarterly Trends for Consolidated U.S. Banking Organizations”](#) as of Q2 2024 is used.

⁶⁶ See the [EBA’s Risk Assessment Report 2021](#), covering the differences in EU vs US banks’ cost of risk. It shows that there are no substantial differences in the CoR of US and EU/ EEA banks in periods of stability, whereas they tend to rise much faster in the US than in the EU during crisis periods. This is due to economic trends, portfolio structure and similar parameters, but also due to the ECL model applied in the US, according to which lifetime ECL are recognised for all financial assets, which is in contrast to the LGD based approach applied at EU banks.

Figure 64: EU vs. US banks' cost-to-income ratio (%) (left) and cost of risk (bps) (right)⁶⁷

Source: Federal Reserve Bank of New York and EBA supervisory reporting data, EBA calculations

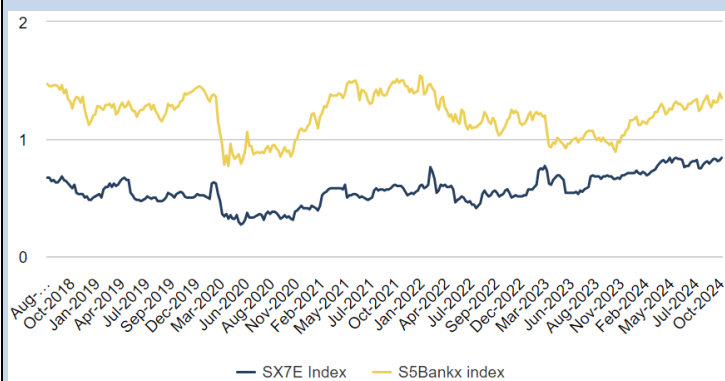
The profitability comparison of the two banking sectors demonstrates that US banks despite their higher cost base, supported by higher NII, NIM and also fee and other income, manage to consistently fare better than EU/EEA banks. There are presumably many reasons for US banks' higher revenues, including diversification of income, asset mix including the use of securitisations to move certain exposures from the balance sheets, asset quality (legacy loans), but also the macroeconomic environment, including interest rates and economic growth. The market structure might similarly contribute to the differences in revenues and overall profitability. Whereas US banks benefit from a fully integrated common market at home, their EU peers do not benefit from a fully integrated banking and capital markets union and are challenged with market fragmentation. Further aspects include for instance the political environment, prudential, liquidity and other regulatory aspects as well as technological and innovation headroom due to investments made in the previous decade by US banks.

Even though valuations are driven by many parameters and are particularly driven by the expectations related to an investment, one might still argue that different profitability levels are at least partially also reflected in respective banks' valuations. EU banks' valuations have been below those of their peers for years. PtB multiples provide a measure for banks' valuations⁶⁸. EU banks' PtB multiple stands at around 0.8 whereas for US banks' it reached around 1.3 in September 2024. The trend in bank valuations over time shows that EU banks had some periods in which they could narrow the gap to their US peers. This was for instance the case at the beginning of the pandemic in 2020, when US banks' RoE fell to nearly similar levels as EU banks' RoE. US banks' valuations declined significantly more than for EU banks at that time. In 2023 EU banks' profitability outperformed that of their US peers not least due to different perceptions of the rate expectations, but also in the aftermath of the SVB induced crisis events. That time, US banks' valuations declined amid their contraction in profitability, and the gap between EU and US banks' valuations narrowed again (Figure 65).

⁶⁷ For the US banks' cost of risk the annualised loan loss provisions as percentage of total loans from the data the Federal Reserve Bank of New York's US banking sector data are used.

⁶⁸ On PtB ratios as one approach to the valuation of banks see for instance ["The ABCs of bank PBRs: What drives bank price-to-book ratios?"](#) in the BIS Quarterly Review from March 2018, with further references therein.

Figure 65: EU vs US banks' price-to-book multiples, using the EuroStoxx banks (SX7E) and the S&P US banks index (S5BANKX)⁶⁹



Source: Bloomberg

Additional, and maybe even more relevant, parameters defining banks' valuations, include expectations regarding the general economic and monetary policy and interest rate environment, and how this affects banks' profitability going forward. Investors' investment strategies, such as focusing on dividend investing or value investing (i.e. investing in stocks that seem to offer an increase in their value) can also affect valuations of certain sectors. Another factor could for instance be windfall taxes for banks that might have affected the valuations of certain banks in recent quarters.

⁶⁹ The Bloomberg query INDX_PX_BOOK was used for this analysis.

6. Operational risks and resilience

6.1 General trends

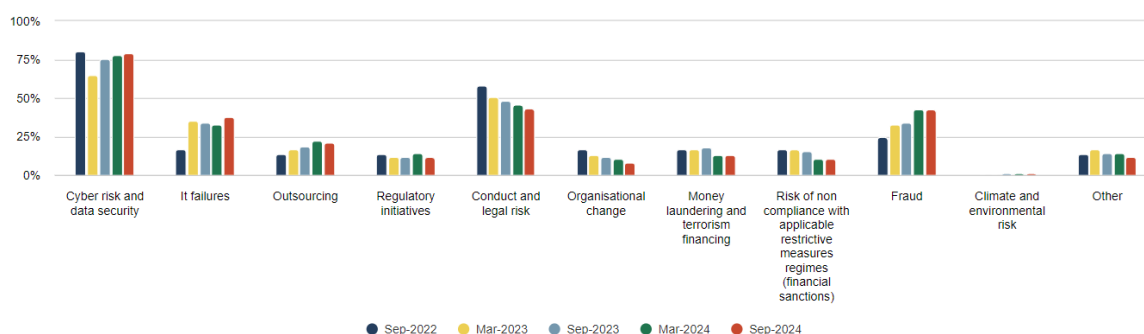
Operational risk in the banking sector has grown in the past years, and operational resilience has become of key relevance. Risks to operational resilience are increasingly systemic as the financial sector has become highly interconnected amid digitalisation. Operational risk capital requirements have increased and account for 10.2% of total requirements (9.7% in June 2023), 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 8%, and two countries reporting over 14%.

The scope and significance of operational risk have broadened considerably in recent years, beyond the traditional definition⁷⁰. Exposure to conduct-related operational risk, including, for example, business conduct risk and the risk of financial crime including AML and TF, has remained high as well. Additionally, technological progress and digitalisation significantly influence the scope and importance of operational risk and highlight the necessity to ensure operational resilience. Heightened geopolitical tensions contribute to increased operational risk, in particular related to cyber- and digital risks as well as AML and sanctions compliance risks and require close attention of financial institutions and supervisors. The global IT disruption in July 2024 from a configuration update of US cybersecurity company CrowdStrike also shows the extent of vulnerabilities to operational risks, and the systemic nature of cyber- and ICT risk.

This is not least reflected in RAQ responses, which indicate cyber risks and data security as the highest of the operational risks (79% agreement). Risk of ICT failures as a related risk remains high as well. Conduct and legal risks are identified as the second most significant contributors to operational risk, with a 44% consensus, and a declining trend. Over recent years, these risks have already been primary drivers of operational risk for banks, evidenced by the persistently high levels of legal and redress payments that financial institutions had to render (Figure 66).

Outsourcing risks also continue to increase in banks' perceptions, according to the RAQ, as reliance on outsourcing business activities and data has grown. Beyond existing risks in this area, operational risks linked to e.g. ICT failures as well as fraud or cyber risks might arise with the introduction of CBDCs.

⁷⁰ See BIS definition of operational risk in [BIS Principles for the Sound Management of Operational Risk](#).

Figure 66: Main drivers of operational risk as seen by banks⁷¹

Source: EBA Risk Assessment Questionnaire

Fraud risk evolved into a major operational risk

Fraud risk has grown significantly in the last 2 years and is considered nearly as relevant as conduct and legal risks, at 42% agreement, according to the RAQ. Risks related to financial crime, but also further digitalisation and technical innovation, including growing usage of AI in financial crime, may have contributed to a continuously growing risk of fraud. This is supported by RAQ responses, which point to payment fraud and fraud by theft or breach of customer credentials, including social engineering, as the main drivers of fraud risk (59% agreement), followed by online and cyber fraudulent activities (52% agreement). On payment fraud, the EBA and ECB in August 2024 released a joint report on payment fraud⁷². The report assesses payment fraud reported by the banking sector across the EU/EEA, which amounted to EUR 4.3 bn in 2022 and EUR 2 bn in the first half of 2023. It examines the number of fraudulent transactions in terms of value and volume, and also presents data based on volumes and also sorted by type of payment instruments, i.e. credit transfers, direct debits, card payments, cash withdrawals, and e-money transactions. The report confirms the beneficial impact of SCA on fraud levels.

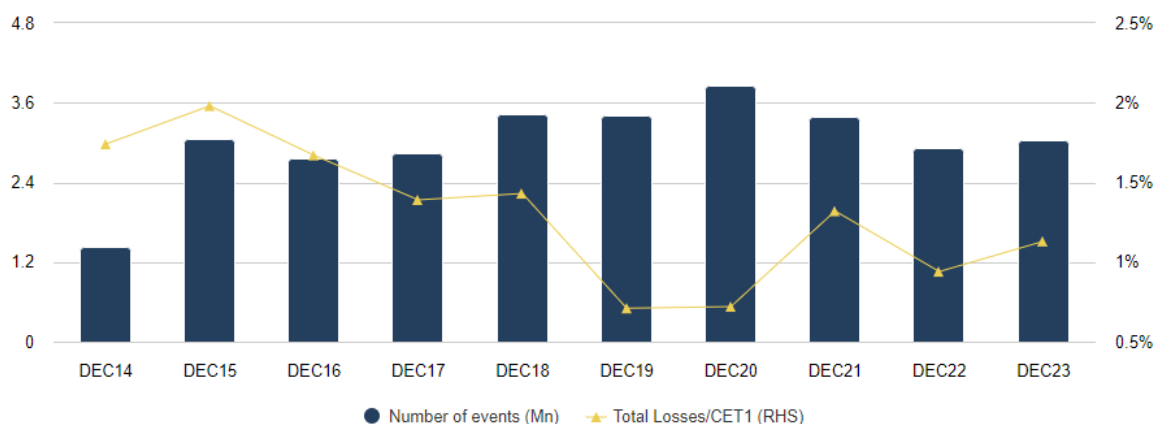
Materialised losses from operational risk losses have surged

At approximately 3 million events according to EBA supervisory reporting data, the total number of loss events EU/EEA banks reported in 2023 was at a high level and increased by 3.7% compared to 2022. The number of loss events is at a lower level than in 2021 and 2020, when banks were affected by the impact of the pandemic on their operations. The 2023 number is near its long-term average until 2019. While operational risks have increased since then, a broadly stable number of risk events suggests that banks have stepped up their efforts to manage their operational risk, including in, e.g. enhancing fraud prevention measures and due diligence, reinforcing product approval processes and customer awareness measures (Figure 67).

⁷¹ Agreement to up to three options was possible for respondents.

⁷² See [EBA and ECB joint Report on Payment Fraud, 2024](#).

Figure 67: Number of new operational risk events over time and total losses in operational risk as a share of CET1⁷³



Source: EBA supervisory reporting data

Beyond the number of operational loss events, the impact of losses related to operational risk remains heightened. Total materialised losses from new operational risk loss events reached EUR 17.5 bn in 2023 and increased by approximately 27% compared to the previous year. This amount is near the amount reported at the highs of the pandemic in 2021 (EUR 18.7 bn). The significantly increased volume of new operational risk losses coupled with a high number of loss events suggest a rising impact of operational risk. Materialised losses had a stronger impact and may have been distributed wider across banks than in the previous year. This may be aggravated by high cyber risks, increased fraud risks and continued high conduct risk which may lead to additional materialising losses at a later stage. Accordingly high operational risk losses should 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 increased to 1.1% in 2023, from 0.9% in 2022. The increase in the ratio was largely driven by higher operational risk loss amounts reported in 2023. But the ratio remains lower than the highs of the pandemic in 2021, and in the long-term average until 2019 (Figure 67).

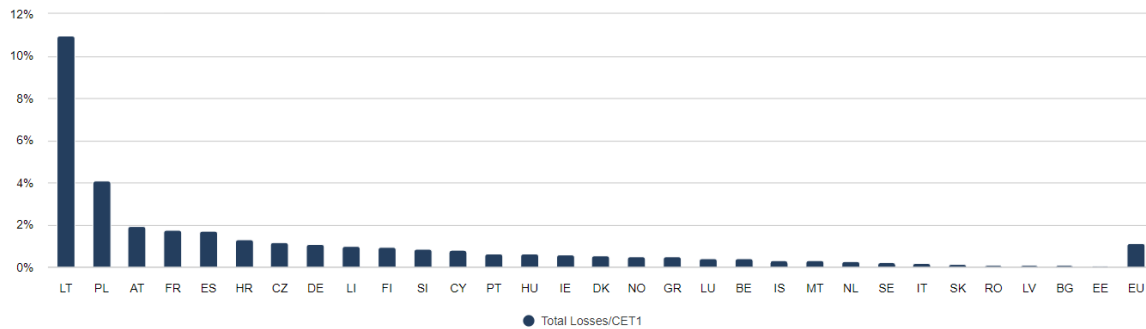
Since total operational risk amounts only reflect materialised losses from new events, further future losses might arise and could add in the coming year to losses that have already been recognised. These might, for example, relate to IT failures or misconduct payments, as a consequence of court rulings and legal settlements. A possible materialisation of the high 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 events gaining wider public attention, or high impact events. This may result in decreasing revenues in the future if a bank exits certain business areas or faces challenges to retain or attract customers. 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-

⁷³ Gross loss amount from new events and loss adjustments relating to previous reporting periods.

by-country data on new operational risk losses in 2023 shows that losses are widely dispersed. While in nine countries operational risk losses were at about 1% of CET1 capital or above, several jurisdictions reported relatively low loss amounts of less than 0.1% of CET1 capital (Figure 68).

Figure 68: Total losses in new operational risk in 2023 as a share of CET1, by country



Source: EBA supervisory reporting data

6.2 Digitalisation and ICT-related risks

Cyber- and ICT-related risk as well as data security continue to be by far the most prominent drivers of operational risk for banks. Risk exposure is also high for consumers, as most of retail banking and corporate banking customers are now primarily using digital channels for their daily banking activities. This reliance on digital and ICT solutions, including outsourcing and increased reliance on ICT third-party arrangements, has resulted in increased digital and cyber risk exposure. Risk exposure is also growing amid increased capabilities of cyber offenders, which might expand through the use of AI, cybercrime as a service activities and sophistication of cyber attacks.

Cyber incidents have significantly increased

The ENISA observes a notable escalation in cyber threats and attacks in the latter part of 2023 and the first half of 2024 during a time of rising geopolitical tensions. Cyber incidents have set new benchmarks in both the variety and number, as well as their consequences. ENISA considers ongoing regional conflicts globally as a significant factor shaping the cybersecurity landscape. For the banking sector, they observe a surge in mobile banking trojans in 2024, with a concomitant increase in the complexity of their attack vectors, or ways for attackers to conduct attacks. They also identify the banking sector among most targeted sectors for DDoS attacks, with 12% of all DDoS events across public and private sectors reported in the banking sector⁷⁴.

The global FS-ISAC identifies key cybersecurity trends for the financial services sector in 2024. These include generative AI, which enables automating and scaling attacks with few skills required and the financial supply chain as a target, where attackers are, e.g. exploiting cloud systems to compromise software, steal customer data, or hold data for a ransom. Geopolitical events provide the phenomena of ‘hacktivists’, often ideologically motivated opportunities for disruption, as has been evident since the outbreak of the Russian aggression and heightened tensions in the Middle

⁷⁴ See ENISA [Threat landscape 2024](#).

East. Hactivism has expanded steadily, with major events taking place (e.g. national elections) providing motivation for increased hactivist activity. New attacker tactics, techniques and procedures include new applications of old crimes, such as QR code phishing and search engine optimisation (SEO) attacks that deliver malware or ransomware, as well as social engineering attacks⁷⁵.

Regulators have responded to cyber risks with a range of initiatives, such as the DORA effective from January 2025, which creates a regulatory framework to enhance digital operational resilience.

Box 9: Enhancing operational resilience with DORA implementation

DORA introduces a comprehensive framework on ICT risks and operational resilience for financial entities and will be applicable from January 2025. The ESAs have been working in several areas to operationalise the framework.

First, after having published a first set of technical standards in January, covering incident reporting, ICT and third-party risk management, the EBA has published in July 2024 a second set of rules under DORA aimed at strengthening operational resilience. The second set of rules covers threat-led penetration testing, sub-contracting of ICT services, classification and reporting of major ICT-related incidents, and the conduct of oversight activities on critical ICT third-party service providers. In July the EBA also published its European Supervisory Examination Programme, setting out high-level expectations on these aspects.

Second, to anticipate or manage the effects of a crisis generated by a cyber incident smooth and seamless communication will be essential. This is why DORA provides tools for sharing information about major ICT-related incidents having a cross-border and systemic impact. This will allow competent authorities to take actions to prevent spill-over effects on the financial system. In addition, to establish better coordination among authorities to address systemic-wide ICT and cyber incidents in a fast-moving environment, the ESAs have started the work to establish the EU-SCICF, which will complement and interplay with the existing EU cyber incident response frameworks by strengthening the communication and coordination among financial authorities and other EU relevant bodies, as well as with key actors at the international level. EU-SCICF will also have synergies and communication channels with existing crisis coordination frameworks, such as EU-Cyclone, to ensure that coordination is achieved if the incidents affect other sectors of the EU economy.

Third, the ESAs are progressing with the development of the oversight framework for critical ICT third-party service providers, including the design of appropriate methodologies and processes (e.g. risk assessment methodologies, processes for on-site and off-site activities, procedures for collecting fees and issuing recommendations and penalties). Moreover, in order to ensure a consistent cross-sectoral approach and outcomes, the ESAs are setting up a joint function to carry out the oversight tasks. This function will be steered by the Joint Oversight Network, composed of high-level representatives of the three ESAs.

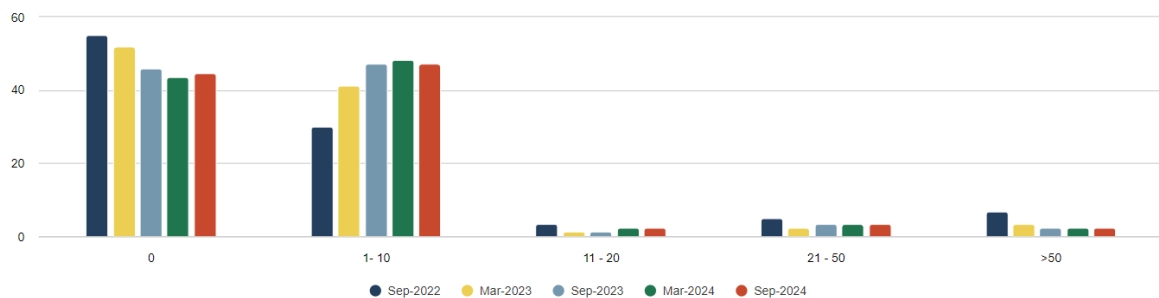
⁷⁵ See FS-ISAC [Navigating Cyber 2024 - Annual Threat Review and Predictions](#)

In preparation for the DORA application in registers of contractual arrangements with ICT third-party service providers, the ESAs have conducted a voluntary ‘dry run’ exercise. The ‘dry run’ aimed to support the participating financial entities to build the right reporting format, test the reporting process, address data quality issues, and improve internal processes and quality of information before mandatory reporting from January 2025. Based on the outcome of the ‘dry run’, ESAs are planning to publish an aggregated data quality report and have a ‘lessons learnt’ workshop for the entire financial industry.

Vulnerability to cyberattacks is high

Confirming observations of an increasing number of cyber incidents on financial institutions since 2023, more than half of banks noted that they had been the victim of at least one cyberattack in the first half of 2024 in their RAQ responses. The share of banks having been the victim of up to ten cyberattacks increased since 2023, to 47% now, while the share of banks falling victim to more than 10 cyberattacks remained stable since 2023 (Figure 69).

Figure 69: Number (in intervals) of cyberattacks to which banks fell victim in the first half of 2024 that resulted or could have potentially resulted in a ‘major ICT-related incident’ in the last semi-annual assessment period⁷⁶



Source: EBA Risk Assessment Questionnaire

RAQ responses also suggest that, while the volume and frequency of cyberattacks as such are unabatedly high, a growing share of responding banks (24% compared to 19% one year ago) report that they faced at least one successful attack which resulted in an actual major ICT-related incident. 1% of banks faced a high number of at least 6 successful attacks. The share of banks which did not experience a successful attack also decreased from 81% a year ago to 75%. These figures indicate that the scope, sophistication and impact of successful cyberattacks across the banking system have increased further. But investments in ICT security infrastructure may bear some fruit, as the number of successful attacks resulting in a major ICT-related incident has not risen further in autumn 2024 compared to spring 2024 in spite of increasing sophistication and a continued high number of attacks. Further investments in ICT and related security are very important, as digitalisation and ICT usage will further expand while vulnerability to cyberattacks will remain high, with expected further sophistication, driven by the growing use of AI.

⁷⁶ 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(8) DORA).

Operating system outage brings looming ICT risks into focus

On 19 July 2024 a configuration update from US company CrowdStrike, a third-party ICT cybersecurity service provider, resulted in a widespread outage of Microsoft Windows systems. Systems across different sectors, including financial institutions and financial service providers, were disrupted. While most affected financial entities were able to fully restore their systems within the same day, and the CrowdStrike incident did not involve a cyberattack, it represented an event of a major operational disruption and highlights the importance of operational resilience. The incident also pointed to the potentially systemic nature of cyber incidents, which can rapidly spread globally across the financial infrastructure.

European banks of different sizes in many jurisdictions were affected and temporarily experienced IT outages. In retail banking, affected services included, e.g. bank account access, payments, cash withdrawals and other ATM functionalities, and online banking logins. In investment banking, derivative trading volumes saw a notable drop on 19 July, the day of the incident. All affected banks swiftly recovered their services, limiting the overall impact. However, recovery capabilities varied. Institutions should be well-prepared for future potentially more severe incidents, and supervisors need to monitor their readiness. The incident also highlights the importance of testing operational resilience scenarios, better understanding outsourcing and/or concentration risks, considering IT impacts in BCP, having ICT response and recovery frameworks in place, and to establish redundancy measures to ensure continuity of services.

6.3 Financial crime risks

The high number of cases of ML/TF involving European banks in recent years has caused substantial reputational damage to the banking system and undermines the integrity of the EU/EEA banking sector. RAQ responses confirm that banks appear to attribute a constant significance to ML/TF risk, with 13% in agreement that it is a main driver of operational risk (13% agreement in spring 2024). Risks related to the implementation of restrictive measures in connection with the Russian war of aggression against Ukraine continue to be a priority for banks. According to the RAQ, risks related to customers' transactions received from, or sent to, jurisdictions that are subject to international sanctions remain the most relevant financial crime risks for 32% of banks, although with a decreasing trend (34% in spring 2024). Although less significant, the laundering of proceeds of frauds is now considered of high significance risk for 22% banks (18% in spring 2024).

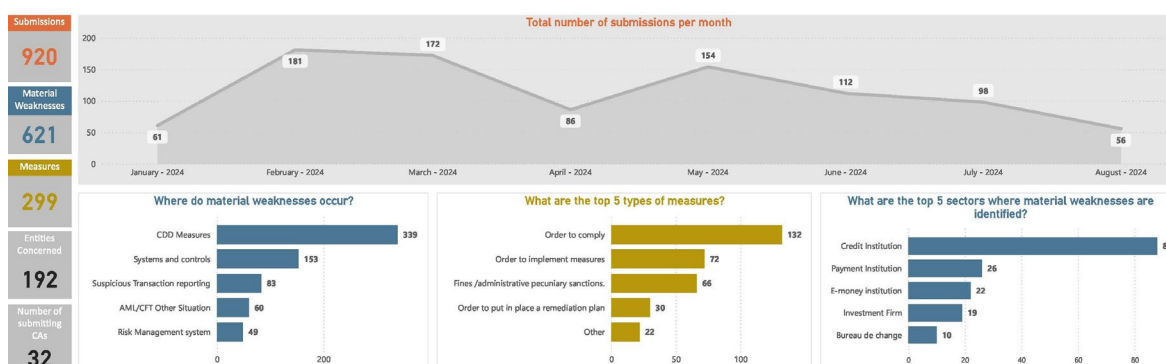
Reporting of AML/CFT weaknesses through EuReCA

From 1 January 2024 to 31 August 2024, 32 national competent authorities reported to EuReCA, the EU's central database for AML/CFT⁷⁷, more than 600 serious deficiencies, or 'material weaknesses', that they had detected in a high number of financial institutions exposing them to ML/TF risks. As has been the trend to date, most reports concerned credit institutions, alongside payment, and followed by an increase of deficiencies detected in e-money institutions, compared to the previous report. This reflects the high ML/TF risk EU competent authorities identified within these sectors. Most deficiencies reported in this period were still related to institutions' approaches

⁷⁷ The [European reporting System for material CFT/AML weaknesses](#)

to CDD. Most of the measures reported were designed to correct these deficiencies through orders to comply, followed by an increase in orders to implement measures, and fines/administrative pecuniary sanctions (which represents an inverted trend compared to the previous report) (Figure 70). The EBA also started collecting information on natural persons directly associated with ML/TF material weaknesses in May 2024.

Figure 70: Financial crime risks, January 2024 – August 2024



Source: European reporting system for material CFT/AML weaknesses (EuReCa)

The EBA has continued to address ML/TF-related risks through regulation, including two sets of guidelines on internal policies, procedures and controls to ensure the implementation of EU and national restrictive measures, and guidelines on the ‘travel rule’, i.e. information accompanying transfers of crypto assets and funds.

6.4 Further legal and reputational risks

Conduct and legal risk beyond risks related to ML/TF and non-compliance with sanctions is the second most relevant operational risk to RAQ respondents, although it has been steadily decreasing in the last 2 years. About 44% of RAQ respondents consider it the main operational risk, compared to 58% in September 2022. Legal and reputational risks also go beyond those related to digitalisation and ICT-related risks, and include, e.g. unethical business practices, improper treatment of customers and risks related to breaches of sanctions. Concerns about past and potentially continuing unidentified misconduct persist and include, for example, fines associated with financial crime and redress for mis-selling to customers.

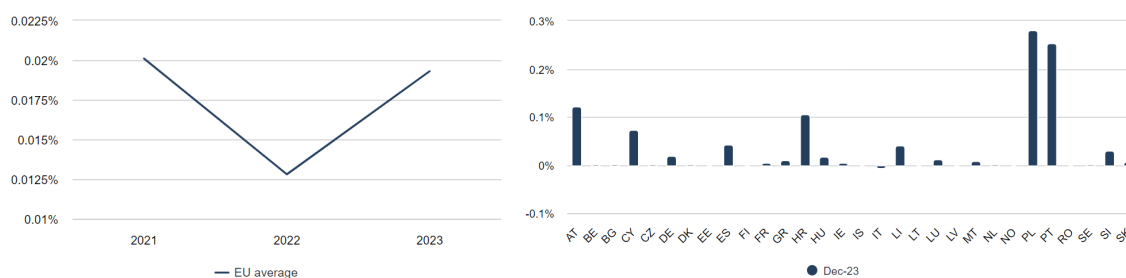
New cases of past misconduct causing considerable redress costs and reputational damage continued to emerge in 2024. Misconduct costs come in addition to other operational risks and associated costs banks are facing and can indirectly affect banks’ ability to extend lending to the real economy. Going forward, fines may also affect banks in breach of climate-related targets as agreed with competent authorities. At a systemic level, misconduct can, moreover, undermine trust in the banking system and the proper functioning of the financial system.

Increasing provisions for legal and conduct risk

Data indicates that banks substantially increased their provision for legal and conduct risk in 2023. Net changes in provisions due to pending legal issues and litigation measured as a share of total

assets were at approx. 1.9 bps in December 2023 substantially higher than in December 2022 (at approx. 1.3 bps). In the pandemic, these provisions were at a comparable level as reported in December 2023 (at approx. 2 bps in 2021). Considering the relevance of conduct and legal risk as the second most important driver of operational risk, according to the RAQ, higher net changes in provisions due to pending legal issues and litigation appear adequate and may point to expectations of further arising redress costs (Figure 71).

Figure 71: Net provisions for pending legal issues and tax litigation as a share of total assets for the EU/EEA (end-of year figures) (left) and by country (Dec-2023) (right)



Source: EBA supervisory reporting data

Box 10: Greenwashing risk under the EBA's radar

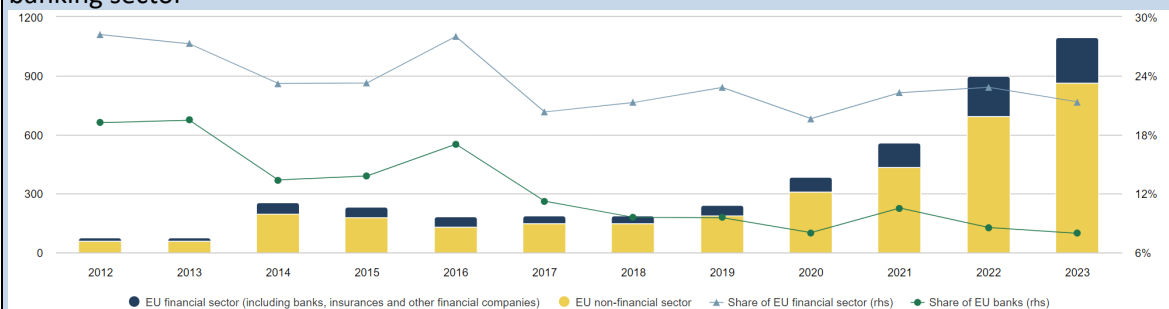
Transition to a more sustainable economy has resulted in increased demand and supply of sustainable products in recent years. One of the side effects of this change is increased risk of greenwashing⁷⁸, which is now receiving more attention with the potential to impact the transition by reducing investor confidence and necessary investments that support meeting the objectives established by the European Green Deal. It can also generate reputational and financial risks for the institutions, including through litigation processes, and can affect the overall credibility of sustainable finance markets. However, the negative effects of greenwashing are not only limited to operational and reputational risks but can also have an impact on liquidity and funding risks and affect the whole business model, which is why the EBA has taken a deeper look into it in the last few years and continues to monitor it.

The EBA's Final Report on greenwashing published in June 2024⁷⁹ confirmed the observed trend – a clear increase in the total number of potential alleged cases of greenwashing across all sectors. The overall number of alleged greenwashing cases was 7.3 times higher in 2023 compared to 2012. In 2023, the total number of alleged cases increased by 21.1% globally and 26.1% in the EU compared to 2022. Looking at the EU financial sector, the increase observed over the last decade in terms of the absolute number of alleged greenwashing cases are far lower than in EU non-financial sectors. While in 2012 the EU financial sector accounted for 28% of all alleged greenwashing cases involving an EU company, of which 19% were at EU banks, the shares decreased to 21% and 8% respectively in 2023 (Figure 72).

⁷⁸ Greenwashing is a practice whereby sustainability-related statements, declarations, actions, or communications do not clearly and fairly reflect the underlying sustainability profile of an entity, a financial product, or financial services. This practice may be misleading to consumers, investors, or other market participants.

⁷⁹ See the [EBA's report on greenwashing – June 2024](#).

Figure 72: Number and shares by sector of alleged greenwashing incidents in the EU financial and banking sector



Source: RepRisk database⁸⁰

Greenwashing risk materialises mostly through reputational and operational risks. In particular, litigation risk resulting from greenwashing has been in a rising trend in the last 3 years. Most competent authorities expect these risks to increase in the coming years. Therefore, avoiding greenwashing and integrating the management of greenwashing risk into the institutions' policies and practices, as well as in the supervisory activities, is crucial.

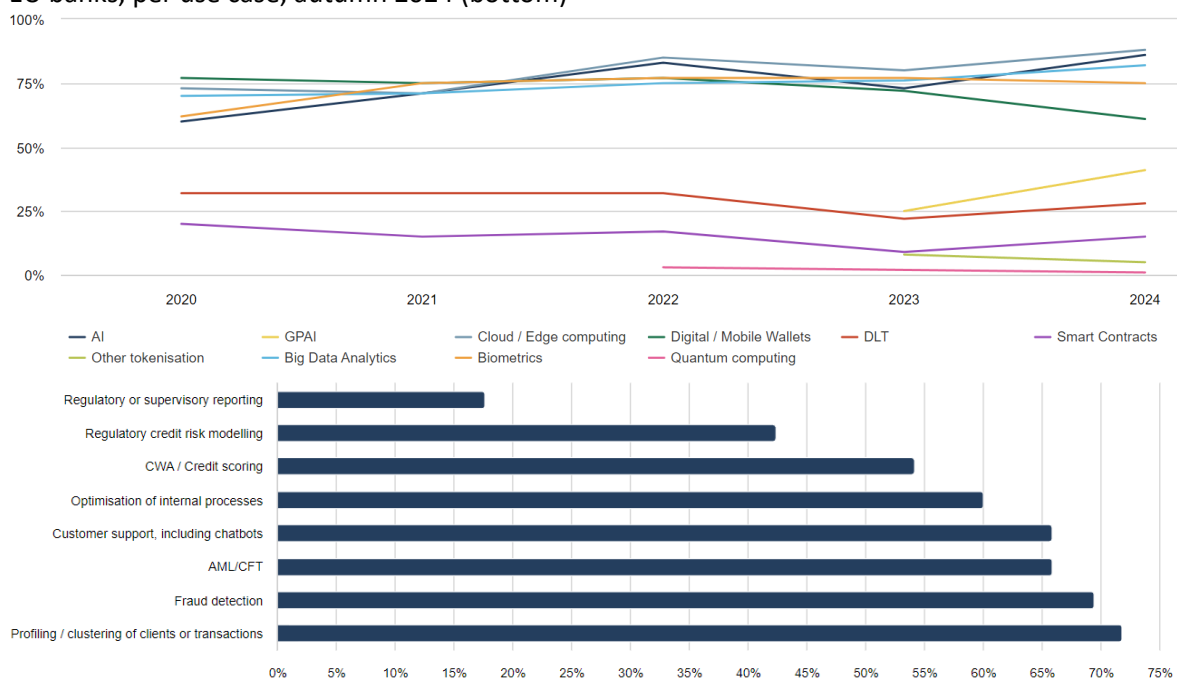
⁸⁰ RepRisk ([link](#)) is an ESG data provider, which collects information on companies' and infrastructure projects' ESG and business conduct risk to support decision-making by investors, banks insurers and other corporates. It takes an outside-in approach to ESG by processing and analysing ESG data from various public sources and stakeholders (such as NGOs, regulators, press, social media, think tanks and research firms) and by intentionally excluding company's self-disclosures. RepRisk's [methodology](#) is public.

7. Special topic – Artificial intelligence

Broad and diverse adoption of AI in the EU/EEA banking sector

Over the past decade, the EU/EEA banking sector has undergone a profound digital transformation, embracing a broad spectrum of advanced technologies to enhance operational efficiency and customer experience. Among these technologies, AI, cloud computing, digital wallets, big data analytics, and biometrics have become increasingly prevalent, with most banks integrating them into their operations for at least the past 5 years. These technologies have played a pivotal role in reshaping banking processes, enabling more personalised services, optimising risk management, and improving decision-making processes. However, while their adoption is widespread, other innovations, such as DLT, smart contracts, and those underpinning tokenisation projects, have experienced a slower uptake (Figure 73).

Figure 73: Proportion of EU banks using different technologies (2020-2024) (top) and uses of AI by EU banks, per use case, autumn 2024 (bottom)



Source: EBA Risk Assessment Questionnaire

Considering the provisions of the EU AI Act⁸¹, references to AI encompass a broad range of machine-based systems designed to operate with varying levels of autonomy. AI is generally assumed as exhibiting adaptiveness to after deployment as well as generating outputs from input data. The adoption of AI has consolidated significantly within the EU banking sector. Over the past 5 years, there has been a consistent upward trend in the deployment of AI, thanks to the potential to impact various aspects of banking. According to the EBA’s RAQ (spring 2024), most EU banks are using AI

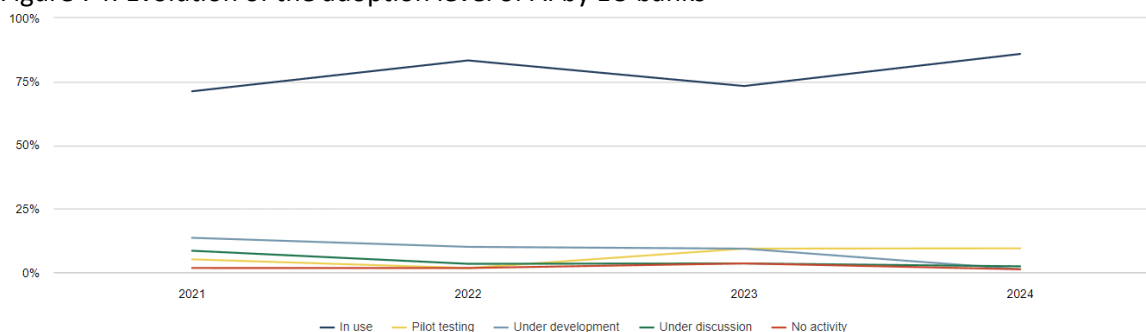
⁸¹ The EU AI Act entered into force in August 2024. However, different elements of the Regulation will be applicable in a phase approach, with the full application expected by 2 August 2026. See: <http://data.europa.eu/eli/reg/2024/1689/oj>

methods such as regression analysis, decision trees, natural language processing and neural networks.

Regarding use cases, AI is most frequently employed in areas such as client and transaction profiling (for commercial purposes) and customer support. These use cases are consistent with trends observed in previous years' RAQs, highlighting AI's role in enhancing the accuracy and efficiency of customer segmentation and improving the responsiveness of customer service channels. Additionally, AI plays a role in fraud and AML/CFT efforts, where it is used to analyse vast amounts of data and detect patterns indicative of illicit activities. Beyond these prevalent applications, AI is also increasingly used to optimise internal processes within banks, in credit scoring and creditworthiness assessments, and in regulatory credit risk modelling. While most of EU banks are leveraging AI in these areas, there are other use cases where AI adoption is less widespread, such as supervisory reporting, monitoring conduct risk, real estate valuation or carbon footprint estimation (Figure 73).

Despite the benefits AI may bring to the EU banking sector, its adoption is accompanied by a range of challenges and risks that demand careful management and rigorous testing. Banks face competitive pressures from global financial institutions and technology companies to innovate rapidly around AI. However, many have taken a more measured approach, gradually developing their AI systems over the past years. This cautious approach is likely driven by the need to ensure compliance with existing horizontal and sectoral legislation, and a commitment to ensuring that AI is developed ethically and responsibly, aligning with regulatory standards and public expectations. Additionally, by developing AI systems in-house or retaining control over key components, banks can reduce their business and technical dependencies on third-party providers. This strategy not only enhances control over AI systems but also addresses some of the core challenges AI poses to the EU banking sector, such as data privacy, cybersecurity, and compliance with regulatory frameworks. In that sense, responses to the EBA's RAQ indicate that the recent surge in AI adoption across EU banks may be linked to a shift away from the developmental and testing phases of AI systems, as, by 2024, only a small number of banks remain in the pilot testing phase of their AI initiatives, as compared to 2022. Most of these initiatives have moved beyond pilot stages and are now fully integrating AI into their IT infrastructure (Figure 74).

Figure 74: Evolution of the adoption level of AI by EU banks



Source: EBA Risk Assessment Questionnaires

GPAl: rising interest, experimentation and early adoption

One of the most recent breakthroughs in AI is the rapidly increasing interest and experimentation with GPAl, which is also being observed in the EU banking sector. According to the EU AI Act, GPAl is AI that has the capability to serve a variety of purposes. One of the main components of GPAl systems are GPAl models (or foundation models), which are trained with large amounts of data using self-supervision at scale. One of the most popular applications of GPAl is Generative AI, which can be understood as a subset of GPAl which refers specifically to systems that can create new content such as text, images, audio or video.

Box 11: The EBA's role in GPAl

The EBA has a statutory duty to monitor and assess market developments, including financial innovation, and to achieve a coordinated approach to the regulatory and supervisory treatment of new or innovative financial activities. In accordance with this mandate and the EBA's priorities on innovative applications for 2024/2025⁸², that include AI/machine learning, including GPAl, the EBA is deepening its monitoring and analysis of the uses of GPAl by EU banks. Since September 2023, the EBA has collected data on the testing and use of GPAl by EU banks via the EBA's RAQ. The results have provided the EBA with detailed insights into the levels of adoption and uses of GPAl in the EU banking sector.

Additionally, in April 2024 the EBA organised a Workshop on GPAl in the banking sector, which included the participation of a range of EU stakeholders representing banks, consumer organisations and technology providers, in addition to relevant EU and national competent authorities. The workshop aimed to promote a common understanding of the uses, risks and opportunities associated with GPAl in the banking sector. During the workshop the EBA found that the use cases of GPAl are rather limited, with activity mainly focused on testing around a small number of use cases. The EBA found that the banking sector has limited tools to fully mitigate consumer protection concerns associated with GPAl, which justifies the cautious and gradual approach to the adoption of this technology.

While GPAl activity is still largely limited to testing, experimenting and piloting, the EBA RAQ data shows an increase in its use by banks since 2023. Approximately one-third of respondent EU banks

⁸² <https://www.eba.europa.eu/regulation-and-policy/digital-finance>

have already implemented GPAI in at least one-use case (Figure 75) highlighting the sector's growing recognition of its potential to drive efficiencies, enhance customer interactions, and generate new business insights. This rapid adoption reflects the banking sector's focus on leveraging cutting-edge technologies to remain competitive in a digital landscape. However, the increasing reliance on AI, and especially GPAI, may augment existing challenges and risks and bring new ones. This merits careful consideration and robust risk management strategies.

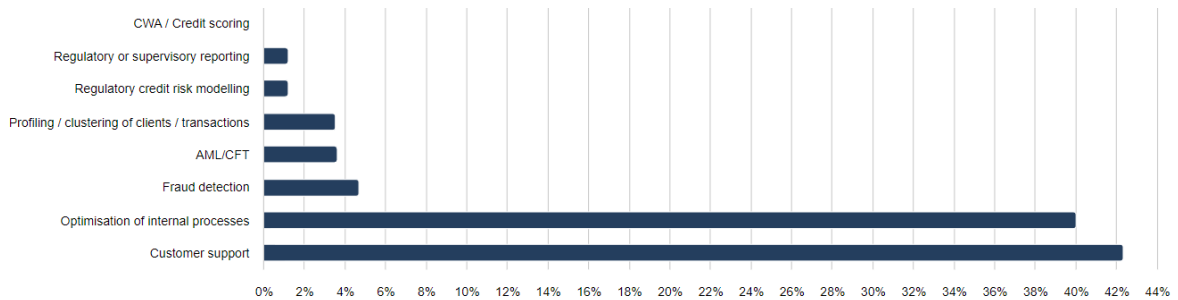
Consequently, the EBA is actively monitoring and assessing the vulnerabilities associated with a potential wider adoption of GPAI in the EU banking sector (see Box 11 above for more on the EBA's role and activities on GPAI). The EBA's objectives are to ensure that consumers continue to benefit from high-level standards of protection and that the supervisory and regulatory framework remains fit-for-purpose and harmonised across the EU, also taking account of the EU's new AI Act.

Adoption of GPAI in the EU banking sector

According to the EBA's RAQ responses, around 40% of EU banks are already using GPAI, with the adoption mainly reaching significant levels in the areas of customer support and the optimisation of internal processes (Figure 75). For instance, banks are engaging in the following non-exhaustive set of use cases:

- **Customer service (internal and external):** GPAI can help a bank improve the resolution of customer queries via chatbot, including for employees' questions about internal policies, procedures or allowances.
- **Call centres:** GPAI can improve the transcription and summarisation of contact centre audio calls into text and the assessment of the quality and outcome of interactions.
- **Programming and coding:** GPAI can improve a bank's technology and operations units by generating new code from natural language, detecting code errors, converting code from one programming language into another or helping migrate legacy code.
- **Legal analysis:** GPAI can help a bank's legal unit improve the monitoring of legal and regulatory changes, the summarisation of court rulings, the analysis of the impact of contractual clauses and the proposal of new clauses and conditions.

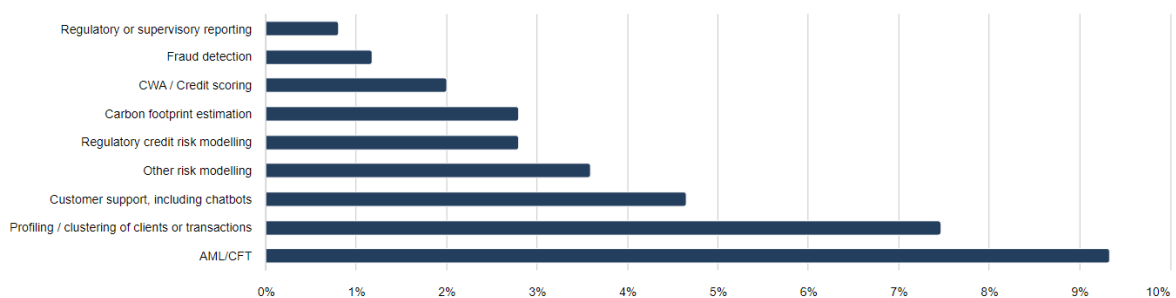
Figure 75: Proportion of EU banks indicating they are also using GPAI, per use case, autumn 2024



Source: EBA Risk Assessment Questionnaire

Overall, the adoption of GPAI in the EU banking sector is still at an early stage, with banks mostly testing and experimenting with GPAI via proof-of-concepts or a sandbox approach. According to the EBA's RAQ, around 10% of EU banks are already testing the use of GPAI for many other use cases, such as those related to AML/CFT and to the profiling and clustering of clients and transactions. Even in the domain of customer support, many banks are still testing and experimenting with GPAI before actively using it (Figure 76).

Figure 76: Proportion of banks testing GPAI, but still not using it in production, per use case, autumn 2024



Source: EBA Risk Assessment Questionnaire

Diverse approaches for the integration of GPAI systems and models

Banks are exploring and testing various deployment approaches to integrate AI and GPAI systems or models into their technical infrastructure. Notably, banks are assessing the potential of GPAI by testing use cases, or already integrating GPAI, following different approaches, such as developing the models or systems themselves, outsourcing the development of the models or systems, or using models or systems developed by third-parties and deploying them either via Cloud application programming interfaces (APIs)⁸³ or 'on-premises'⁸⁴. The choice of approach depends on factors such as scalability, cost, control over data security and compliance, need for internal resources, and internal skills and expertise. When choosing the approach, banks are also varying between relying on a single or multiple providers, or relying on proprietary or open-source models. Finally,

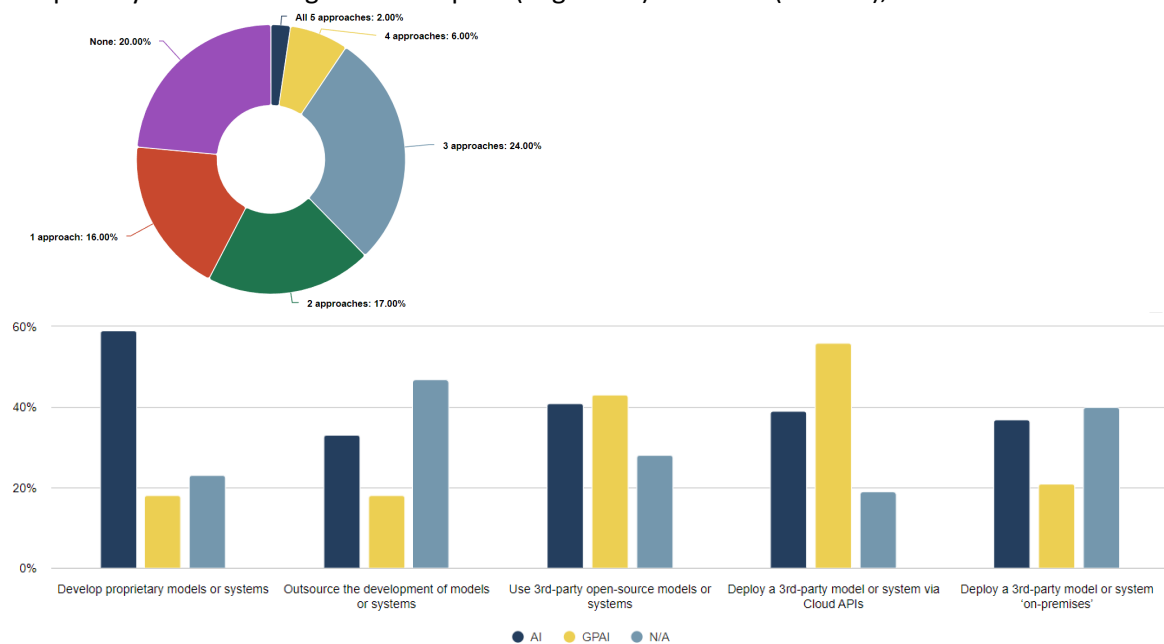
⁸³ The use of cloud-based APIs enables banks to access and integrate GPAI models into their systems without the need for extensive in-house infrastructure.

⁸⁴ The 'on-premises' solution involves installing and running GPAI models directly on a bank's own servers and infrastructure, providing greater control over data security and compliance, but requiring significant internal resources for maintenance and scalability.

regardless of the approach selected, to ensure and improve the performance and applicability of GPAI model for specific applications, banks are resorting to techniques such as RAG⁸⁵ or ‘fine-tuning’⁸⁶.

According to the EBA RAQ, EU banks most commonly deploy models and systems using between one and three different approaches. Notably, banks appear to be combining the use of third-party open-source models or systems with other methods, such as deploying third-party models via Cloud APIs or on-premises solutions and developing models in-house or outsourcing development to third parties. Generally, regardless of the combination of approaches followed, banks appear to be resorting to third parties to deploy GPAI. Most of respondent EU banks are already using third-party services, mainly via Cloud APIs offered by large model developers, due to the flexibility and scalability of doing so. A lower proportion of banks are integrating third-party GPAI systems or models ‘on-premises’, attracted by a higher degree of control in the hands of banks (which could benefit the scope of resources and costs dedicated to GPAI, and ultimately on the cost-effectiveness of deploying GPAI). However, many banks may face difficulties in following this deployment approach, due to limited technical skills and resources in-house. Finally, only a small number of respondent EU banks are developing proprietary GPAI models and systems, indicating the necessary financial and technical resources required as the main challenge (Figure 77).

Figure 77: Diversity of deployment approaches by banks for GPAI (top) and Deployment approaches adopted by banks to integrate or adopt AI (in general) and GPAI (bottom), autumn 2024



Source: EBA Risk Assessment Questionnaire

Hence, EU banks seem to be following a multimodal approach strategy, while assessing the effectiveness of each approach on a case-by-case basis. This may be indicative of the nascent stage of GPAI technology within the banking sector. Each approach entails different opportunities and

⁸⁵ RAG techniques aim to optimise the output of GPAI models with facts retrieved from authoritative sources distinct from training datasets, thus extending their capabilities to specific domains or an organisation’s internal knowledge base, without the need to retrain the model.

⁸⁶ Fine-tuning is a technique in which pre-trained GPAI models are customised to perform specific tasks or behaviours by using examples and instructions.

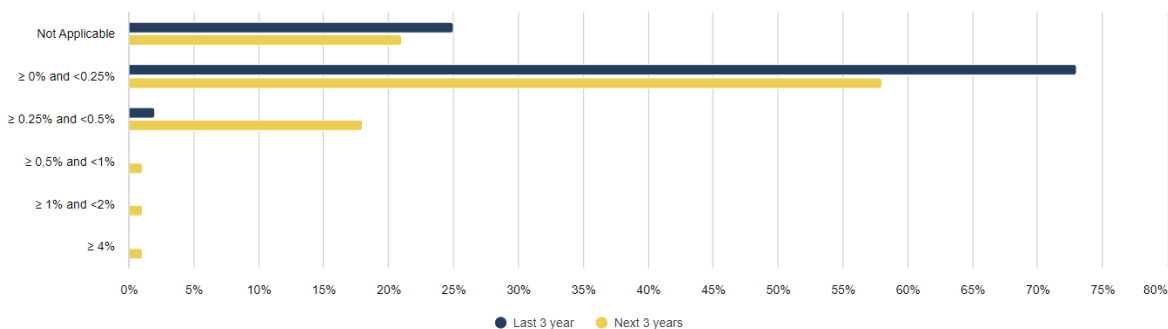
risks, and decisions are influenced by cost, security, skills availability in-house (and via third parties), quality of data available and data privacy considerations. As banks are still primarily in the testing and piloting phase, experimentation allows banks to assess the strengths and limitations of various approaches.

Drivers and obstacles to GPAI adoption in the EU banking sector

To-date, the EBA has observed that GPAI applications currently being tested and experimented with by banks focus on areas where the technology can bring operational efficiencies, either via increasing productivity, lowering costs, or supporting and improving the speed of back-office processes (such as, coding, programming, auditing or fraud detection). Banks appear to be attracted to GPAI adoption by efficiency gains in areas such as content intelligence, content generation, customer engagement or code generation.

In addition, some EU banks are engaging with GPAI as part of wider initiatives to foster an innovative culture and position their entity as innovation-friendly towards customers and other businesses. In this sense, banks across the EU are showing a considerable interest in exploring the potential of GPAI in financial terms as well. According to the EBA RAQ data, while more than half of the respondent banks plan to invest between 0% and 0.25% of their equity in GPAI, around 21% of respondent EU banks have indicated plans to invest above 0.25% of equity, with one bank in the sample planning a substantial investment exceeding 4% of equity into GPAI (Figure 78). These investment figures may suggest that EU banks are interested in the potential of GPAI but are approaching it with a measured level of financial commitment, likely reflecting the early stages of its adoption and the need to carefully assess the return on investment⁸⁷.

Figure 78: Proportion of banks investing or planning to invest in GPAI (investment levels as % of equity), autumn 2024



Source: EBA Risk Assessment Questionnaire

Despite the abovementioned drivers, the EBA observes that currently EU banks do not consider GPAI is sufficiently robust to be used in other use cases. However, the EBA notes that some are researching around the potential of GPAI in other areas such as AML/CFT, the profiling and

⁸⁷ However, the EBA notes that a quarter of the respondent banks have indicated plans to increase their investments in GPAI over the coming years. Nevertheless, most banks either do not plan to increase their investments in GPAI or were unable or unwilling to provide a response to this question. This may reflect ongoing uncertainties about the long-term strategic value of GPAI or signal that banks are still in the process of determining the role this technology will play in their broader digital transformation strategies

clustering of clients or risk modelling. In doing so, some EU banks are experimenting with GPAI in those use cases. Consequently, the EBA will keep monitoring those uses via surveys, workshops and desk-based research, as research and experience of the banking sector with GPAI improves.

Potential risks associated with the use of GPAI in the banking sector

In terms of the risks associated with GPAI, as compared to ‘other AI’ or ‘traditional AI’, based on engagement with competent authorities and industry, the EBA has identified potential risks regarding the following:

- **Explainability.** Several parameters are used to train GPAI models and randomness is a key feature of outputs. As a result, GPAI models and systems can be highly complex and opaque. Consequently, explainability techniques used for ‘traditional AI’, which are limited in efficiency, are not necessarily valid for GPAI. Besides, GPAI-specific explainability techniques (such as, RAG techniques or asking a GPAI model to point back to the source of an output) are not sufficient to comply with explainability expectations on consumer-facing interfaces. The explainability challenges therefore appear to be difficult to tackle considering the existing research and technical developments.
- **Reliability.** In addition to the abovementioned explainability challenges, most of the state-of-the-art GPAI models suffer from ‘hallucinations’ - i.e. output generated by GPAI which contains incorrect or misleading information presented as fact to the end-user, for which researchers have not yet found a solution. Consequently, the outputs of GPAI systems may face reliability issues, which may justify the cautious approach that banks are adopting towards the adoption of GPAI.
- **Transparency.** Transparency around the capabilities and limitations of GPAI models is particularly important for the banking sector, considering the requirements that banks face regarding model validation, privacy, security, accessibility or consumer protection. While GPAI model providers often develop GPAI-specific technical documentation (e.g. ‘model cards’), there are still some concerns observed related to privacy and intellectual property issues.
- **ICT risks.** GPAI models are often developed and provided by third-party technical providers. Therefore, the integration of GPAI into a credit institution’s technical architecture may enhance challenges to operational resilience, as well as security and privacy concerns. While banks face similar challenges when integrating other technical service providers, the complexity of GPAI applications and the limited explainability of their outputs may increase ICT risks.
- **Data governance.** GPAI models rely on training data that may have limitations in quality, reliability and privacy. Due to the extensive size of datasets used, GPAI could present challenges in ensuring sound data governance for banks.
- **Access to necessary skills.** The use of GPAI introduces challenges that require banks to adopt a ‘human-in-the-loop’ approach, involving human intervention throughout the

application's lifecycle. However, the rapid development in GPAI research and the limited availability of expertise in this area can make it difficult for banks to access the necessary skills and talent. This has led to an effort in upskilling and re-skilling efforts, especially among larger banks. Smaller banks, however, might face difficulties competing for the required skills and talent.

- **Other concerns:** GPAI also presents challenges such as environmental impacts from the development of GPAI models (i.e. water and electricity consumption) or concerns around competition and market concentration due to the substantial investments needed to compete in the development of state-of-the-art GPAI models and the limited number of technical services providers in the market.

Box 12: Consumer protection challenges associated to GPAI with the EU banking sector

Based on engagement with competent authorities, market stakeholders and consumer organisations, the EBA has identified that the following consumer protection issues could arise if banks adopt GPAI in consumer-facing use cases:

Accountability. The complexity and limited transparency associated with GPAI could raise challenges in terms of ensuring that providers of GPAI systems and models to banks are accountable for inaccurate or inappropriate outcomes, such as inaccurate, misleading or false information or advice to bank customers. However, as banks are accountable for inaccurate, misleading, or false information provided to consumers according to general financial protection legislation, consumers may seek compensation for harms through banks.

Bias, discrimination and financial exclusion. Training data used by GPAI model developers can, without mitigation, exacerbate discrimination and bias against minority or misrepresented groups, leading to risks of financial exclusion. Due to the randomness associated with GPAI outputs, banks deploying GPAI in customer-facing applications may face limited capabilities for understanding and explaining the logic behind biased outputs. Additionally, for instance, consumer support for speakers of minority languages may be impacted if such support gradually shifts from human to GPAI-powered virtual assistants, since GPAI models are mainly trained on the largest languages.

Transparency. The opacity of GPAI applications implies that informing consumers about the use of GPAI in consumer-facing interfaces may not be sufficient for raising their awareness. Therefore, banks might need to explore the use of other means (e.g. application-specific disclaimers) to provide more complete information to consumers.

Data security. The improved technical abilities of attackers (including new types of cyber attacks, prompt-related attacks, misinformation campaigns, data poisoning attacks, and data exfiltration techniques) can raise data security concerns for consumers. Use of GPAI can also contribute to data security risks for consumers via information leakage or inappropriate or non-factual responses. However, thanks to GPAI's potential benefits in areas such as programming script analysis or

malware detection and investigation, existing research⁸⁸ suggests that there is no substantial evidence yet suggesting that GPAI can automate sophisticated cybersecurity tasks which could tip the balance between cyberattackers and defenders in favour of attackers.

Other concerns. As GPAI can potentially change the threat landscape for banking consumers by boosting cyberattackers' technical skills, aiding social engineering or phishing attacks, and speeding up manipulation techniques through consumer personification and hyper-realistic scams, GPAI could introduce challenges in consumer experiences.

In view of these potential risks, EU banks appear to be adopting a risk-based and graduated approach to GPAI and are focusing on building out guardrails, controls and ensuring human intervention during the early adoption of GPAI. As a consequence, higher risk use cases are being tested by banks only after they have reached an advanced understanding of GPAI models, deployment methods and their potential effects and necessary mitigants.

⁸⁸ See the Interim International Scientific Report on the Safety of Advanced AI, published in May 2024: <https://www.gov.uk/government/publications/international-scientific-report-on-the-safety-of-advanced-ai>

8. Retail risk indicators

Article 9(1) of Regulation (EU) No 1093/2010 requires the EBA to develop 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). The indicators aim to facilitate the monitoring of the banking markets across the EU/EEA by measuring the risk of consumer harm arising 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 (Table 1)⁸⁹. The EBA published the RRIs for the first time in 2022 and updates them annually, which, over time, will allow the presentation of helpful time series and trends.

Table 1: EBA retail risk indicators

Product category	Name of indicator	Indicator number	Value – EU/EEA average	Reference period
I. Mortgage credit	Share of household loans with forbearance measures over total household loans	MC1	↓ 1.4% (1.5%)	30/06/2024 (30/06/2023)
	Share of NPLs collateralised by immovable property over total loans collateralised by immovable property	MC2	= 1.5% (1.5%)	30/06/2024 (30/06/2023)
II. Other consumer loans	Share of NPLs from credit for consumption over total credit for consumption	OCL1	↑ 5.4% (5.2%)	30/06/2024 (30/06/2023)
III. Payment and deposit accounts	Percentage of deposit interest expenses paid by banks to households over total household deposits	PDA1	↑ 1.6% (1.0%)	30/06/2024 (30/06/2023)
IV. Credit & debit cards	Share of fraudulent card payments over total card payments (in terms of volume and value of total transactions)	CDC1	0.01%	2023
			0.03%	2023
	Change to previous year of the fraud losses borne by card payment users	CDC2	-9%	Difference between 2022 and 2023
V. Other payment instruments	Share of fraudulent credit transfer payments over total transfer payments (in terms of volume and value of total transactions)	OPI1	0.002%	2023
			0.001%	2023
	Change to previous year of the fraud losses borne by consumers (credit transfers)	OPI2	11%	Difference between 2022 and 2023

⁸⁹ . An explanation of the methodology for the calculation of the RRIs, including related data limitations, can be found on the EBA website. [EBA Retail risk indicators - methodological note](#)

	The percentage of people aged 15+ who have an account at a bank or another type of financial institution	AFS1	↑ 92% (91%)	2021 (2017)
VI. Access to financial services	The percentage of respondents aged 15+ who report having a debit or credit card	AFS2	↑ 85% (84%)	2021 (2017)
	The percentage of respondents aged 15+ who report borrowing any money from family, relatives, or friends in the past year	AFS3	= 15% (15%)	2021 (2017)

Source: EBA supervisory reporting data, payment fraud reporting data, World Bank

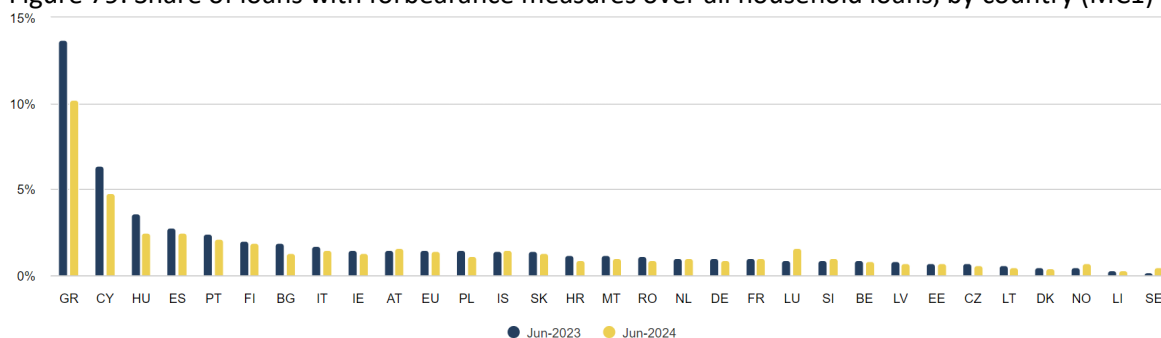
Mortgage credit and other consumer loans

For mortgage credit and consumer loans, the EBA's RRI's capture the risks to consumers by measuring consumers' ability to repay their loans (see also Chapter 2.2 on banks' asset quality). 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 in this ratio may indicate that consumers experience harm 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 2023 and June 2024, the share of household loans with forbearance measures over total household loans decreased from 1.5% to 1.4% across the EU/EEA. The fall was significant in Member States with a comparatively high level of such loans –Greece, Cyprus, and Hungary, as well as Bulgaria, Poland, Croatia and Liechtenstein. The proportion of such loans increased significantly in Sweden, Luxembourg and Norway (Figure 79).

Figure 79: Share of loans with forbearance measures over all household loans, by country (MC1)

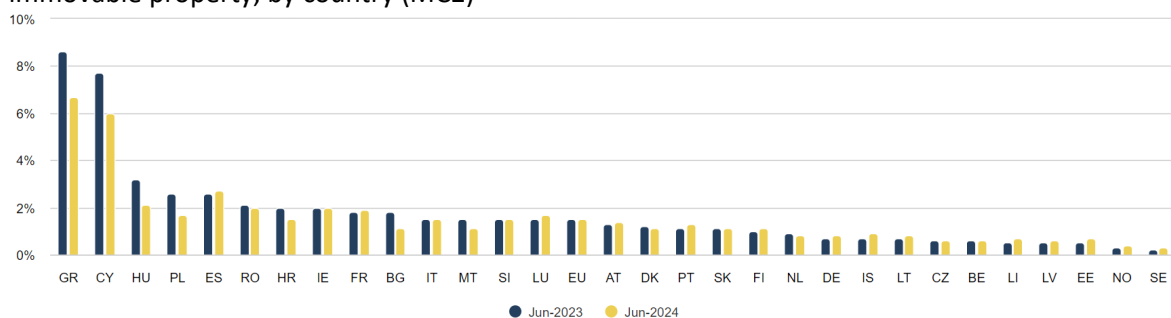


Source: EBA supervisory reporting data

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 in 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 2023 and June 2024, 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 Member States with a high proportion of NPLs, such as Greece, Cyprus and Hungary, as well as Bulgaria and Malta. The only countries where the proportion of such loans increased noticeably were those with a very low proportion of NPLs last year, such as Sweden, Estonia, Norway, and Liechtenstein (Figure 80).

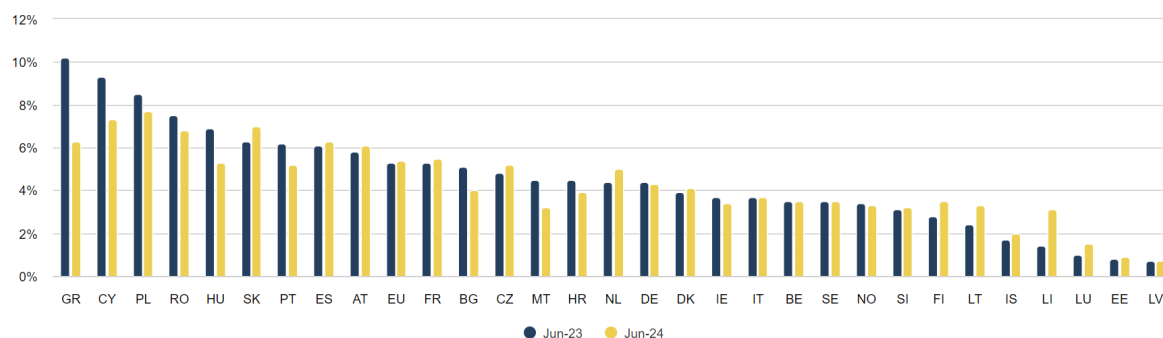
Figure 80: Share of NPLs collateralised by immovable property over all loans collateralised by immovable property, by country (MC2)



Source: EBA supervisory reporting data

The share of NPLs from credit for consumption increased slightly between June 2023 and June 2024, from 5.2% to 5.4%. The proportion of such NPLs decreased the most in Member States with high levels of NPLs, such as Greece, Hungary, and Cyprus, as well as Bulgaria and Malta, while increasing the most in Liechtenstein, Luxembourg, and Lithuania, albeit from among the lowest levels in the EU/EEA (Figure 81).

Figure 81: Share of NPLs from credit for consumption over all credit for consumption, by country (OCL1)



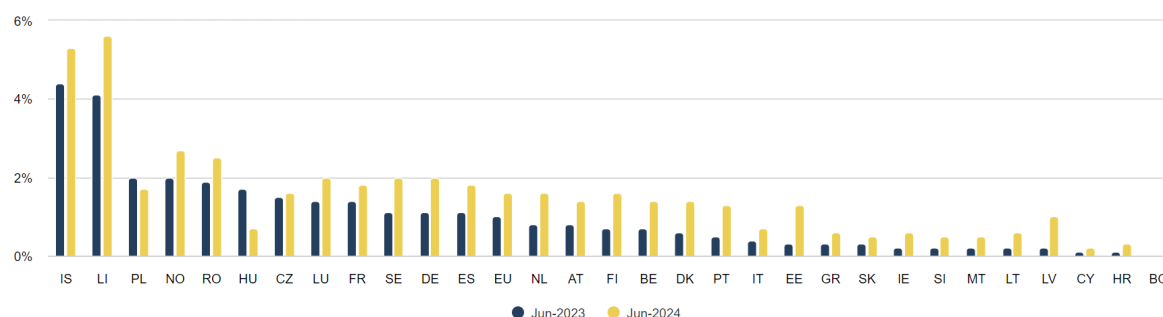
Source: EBA supervisory reporting data

Payment and deposit accounts

For payment and deposit accounts, the EBA's RRI captures 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 in 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 (see also Chapter 3 on the liability side of banks).

Between June 2023 and June 2024, the ratio increased from 1.0% to 1.6% indicating that deposits have become more profitable for consumers. The increase was noticeable in most Member States, and particularly so in Latvia, Estonia, Croatia, Bulgaria, Lithuania and Ireland, albeit from some of the lowest levels across the EU/EEA (Figure 82).

Figure 82: Percentage of deposit interest expenses paid by banks to households over total household deposits, by country (PDA1)



Source: EBA supervisory reporting data

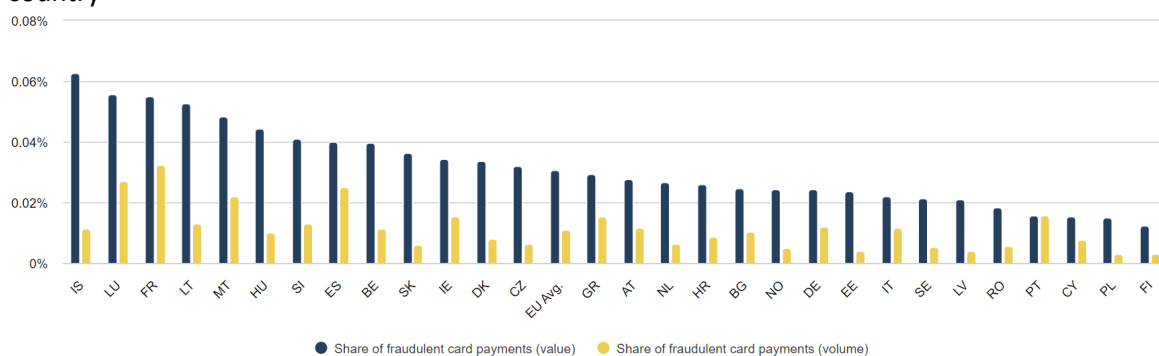
Payment services

For payment services, some of the risks to consumers are captured by measuring the ratio of fraudulent payments in general and the losses borne by consumers as a result of fraud in

particular⁹⁰. With regard to the former, 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 in this ratio would indicate that consumers are more exposed to fraud in the context of their card payments.

In 2023, 0.015% of the volume of card payments in the EU/EEA were fraudulent – the same as in 2022. It ranged from 0.03% in France and Luxembourg to close to zero in Finland, Poland, Estonia and Latvia (Figure 83). The value of fraudulent card payments compared to the total value of card payments was 0.034% in the EU/EEA, up from 0.027% in 2022. In four Member States – Iceland, Luxembourg, France and Lithuania – the value of fraudulent payments exceeded 0.05%.

Figure 83: Share of fraudulent card payments over total card payments - volume and value, by country



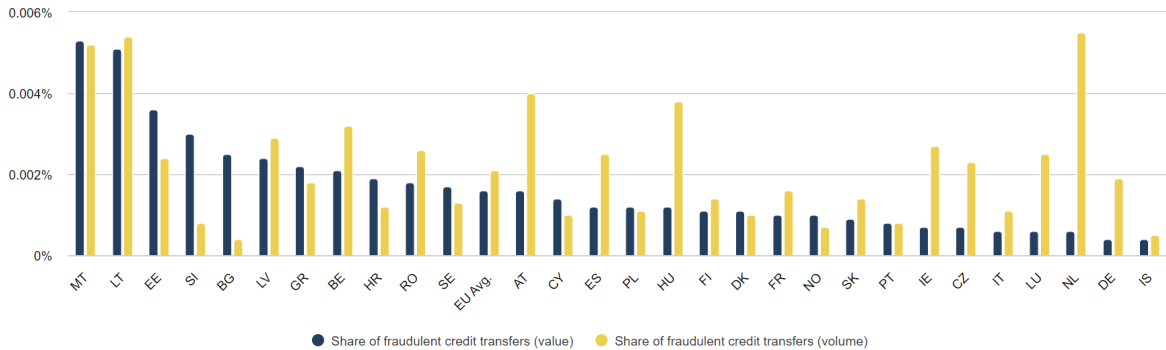
Source: EBA payment fraud reporting data

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

In 2023, 0.002% of credit transfers in the EU/EEA were fraudulent – similar to the figure in 2022. The proportion ranged from 0.005% in the Netherlands, Lithuania and Malta to close to zero in Bulgaria, Iceland, Norway, Slovenia and Portugal (Figure 84). The value of fraudulent credit transfers as a proportion of the value of all such transfers was 0.0009% in the EU/EEA in 2023, compared to 0.0006% 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.

⁹⁰ 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.

Figure 84: Share of fraudulent credit transfer over total credit transfers - volume and value, by country

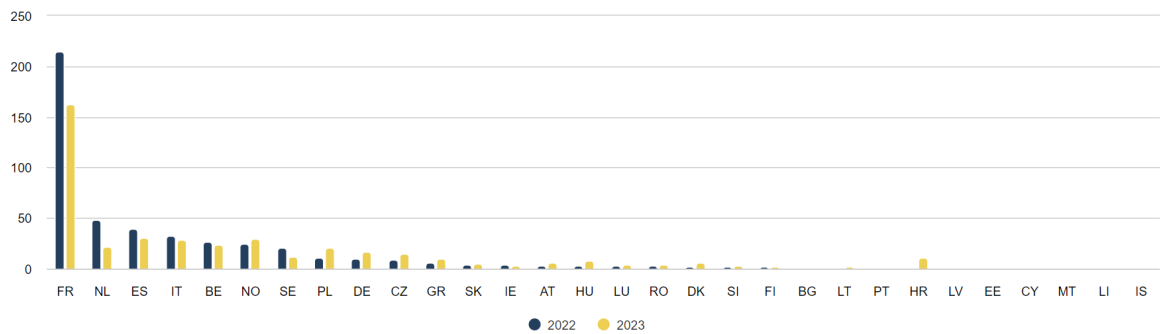


Source: EBA payment fraud reporting data

Furthermore, changes to the number of losses due to fraud that are borne by card payment services users are also monitored. From 2022 to 2023, the total value of losses from this type of payment dropped by 9% in the sample of 27 EEA countries for which EBA has data. This reduction was mainly driven by falls in Member States with the highest absolute levels of losses from this type of payment, such as France and the Netherlands (Figure 85).

Even though the total value of losses across the EU from this type of payment dropped by 9%, the total value of losses due to fraud borne by card payment services users increased in 17 of the 27 EEA countries between 2022 and 2023. The greatest percentage increase occurred in Estonia, Hungary and Denmark, while the greatest percentage reduction took place in Malta and the Netherlands. However, the quality of the data underlying this indicator requires further improvements to arrive at robust conclusions and, thus, results should be interpreted carefully.

Figure 85: Fraud losses borne by users of card payments in 2022 and 2023, by country (EUR mn)



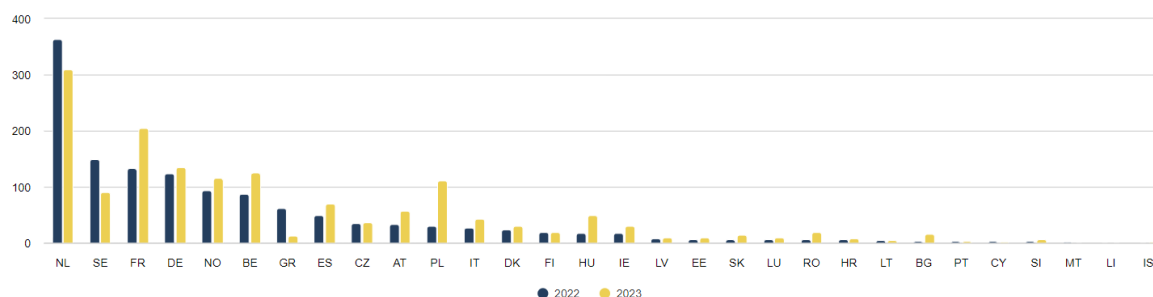
Source: EBA payment fraud reporting data

Data shows an 11% increase during the past year in the value of losses due to fraud that are borne by the users of credit transfers. The results seem to be driven mainly by a significant increase in losses in large Member States, such as France, Spain and, to a lesser extent, Germany (Figure 86).

Between 2022 and 2023, the total value of losses due to fraud borne by users of credit transfers increased in 21 of the 28 EEA countries for which the EBA has data for both years. The greatest percentage increase occurred in Bulgaria, Romania and Hungary, while the greatest percentage

reduction took place in Greece and Malta. However, akin to the caveat for Figure 85, the quality of the data underlying this indicator requires further improvements to arrive at robust conclusions and, thus, results should be interpreted carefully.

Figure 86: Fraud losses borne by users of credit transfers in 2022 and 2023, by country (EUR mn)



Source: EBA payment fraud reporting data

Access to financial services

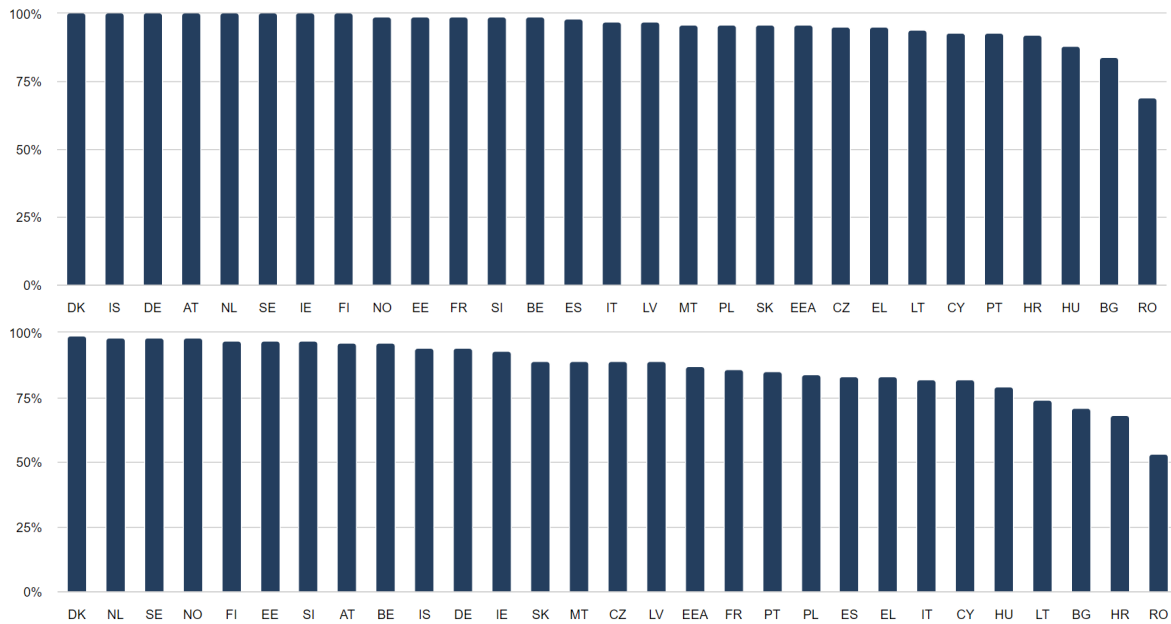
Concerning access to financial services, the EBA RRIs include three indicators based on World Bank data – i) the percentage of people aged 15+ who have an account at a bank or another type of financial institution; ii) those who report having a debit or credit card; and iii) those who report borrowing any money from family, relatives or friends in the past year. As the World Bank updates these indicators only every 3 to 4 years, but the EBA publishes its RRIs on an annual basis, these RRIs remain unchanged for several years.

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 percentage, 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.

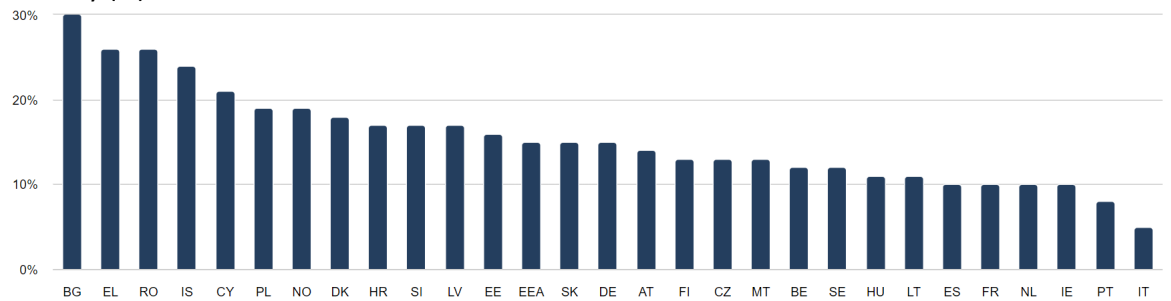
Finally, the percentage of people aged 15+ who report borrowing any money from family, relatives or friends in the past year is another RRI considered here. A higher percentage may indicate that fewer people have access to loans from financial institutions, and thus, resort to borrowing from family, relatives or friends. A high share 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 87: Percentage of people aged 15+ who have a bank account (AFS1) – 2021 (top) and percentage of people aged 15+ who have a debit card (AFS2) – 2021 (bottom), by country (%)



Source: World Bank

Figure 88: Percentage of people aged 15+ who borrowed from family or friends (AFS3) – 2021, by country (%)



Source: World Bank

9. Policy conclusions and suggested measures

The EBA's risk assessment report highlights the critical need for ongoing vigilance and proactive measures to tackle emerging risks in the banking sector. This involves ensuring that EU/EEA banks maintain strong capital and liquidity positions to withstand potential shocks, especially amid elevated macroeconomic uncertainty and increased geopolitical risks.

Monitoring should be fully embedded in banks' risk management. Given the materialisation of geopolitical risks in recent years, it is reasonable to assume that this risk will persist. Monitoring might include scenario analysis of the potential impact on capital, liquidity, funding, business model and operational resilience. Banks should be prepared to address risks related to cyberattacks but also to staff, operations, data and processes, which might result from the materialisation of geopolitical risks.

Enhancing credit risk management frameworks is essential for identifying and mitigating potential risks early. This entails regular stress testing, scenario analysis, and vigilant monitoring of credit exposures, particularly in vulnerable areas such as SMEs, CREs, and those sensitive to geopolitical developments. Recognising potential interactions with NBFIs is equally crucial. Maintaining stringent loan underwriting standards is also crucial for assessing new loans' quality through comprehensive credit evaluations, accurate collateral valuation, and adherence to prudent lending practices.

To monitor asset quality trends and detect early signs of deterioration, banks should implement robust monitoring and reporting systems. These include periodic reviews of loan portfolios, updated collateral valuations, prompt recognition of NPLs, and active management of distressed assets. Engaging with borrowers is also vital to comprehend their financial conditions and offer necessary support, such as restructuring options or financial advice.

Financial institutions are critical to the global economy, so their resilience to climate risks is essential. They must integrate climate risk into their risk management framework to maintain financial stability. This includes incorporating climate risk considerations into their credit risks assessment and underwriting practices and diversifying investment portfolios to mitigate exposure to high-risk geographical areas or sectors. An efficient pricing of physical and transition risks is crucial for supporting Europe's transition to a more sustainable economy.

Furthermore, banks need to focus on sustainable finance while effectively managing greenwashing risks. This involves developing precise internal guidelines and frameworks to encourage sustainable finance practices, transparent reporting, and compliance with established ESG standards. Diversifying funding sources is equally important to minimise reliance on a single source by tapping into various markets, including retail deposits, wholesale funding and capital markets.

Establishing robust liquidity risk management frameworks is imperative. This includes setting internal liquidity limits, regular monitoring, and having contingency plans to address potential

shortfalls. Banks should aim to maintain strong LCR and NSFR ratios and a sufficient buffer of high-quality liquid assets that are easily convertible into cash to meet short-term obligations, such as government bonds and other highly liquid securities.

Financial markets show a higher level of nervousness, which can affect banks' access to funding at reasonable prices. This is further amplified by banks higher reliance on market-based funding following the repayments of central bank funding. It remains crucial for banks to seize favourable moments to issue bonds, especially given the possibility of ongoing market volatility. Equally important is for banks to continue managing customer deposits at competitive rates.

Banks should diversify their revenue base and control costs in order to support profitability. With NII likely to decrease and both cost of risk and operational expenses potentially continuing to rise, it is crucial for banks to diversify their revenue sources, including generating income from fees and commissions. Additionally, they must maintain a tight rein on expenses, even as ongoing ICT investments are necessary. Consolidation could prove beneficial in managing some of these challenges.

Banks should bolster their operational resilience against increasing digital and cyber threats. They should further invest in advanced cybersecurity measures and governance, regularly update systems, and conduct frequent security audits to guard against breaches. It is important that banks and supervisors remain vigilant to operational and financial stability risks that could arise from cyber threats. With increased digitalisation and technological innovation, enhancing fraud detection and prevention mechanisms using AI and ML is crucial for identifying and thwarting fraudulent activities. Additionally, with the growing dependency on third-party services, strengthening third-party risk management frameworks, involving thorough due diligence, regular monitoring, and clear contractual agreements, is essential. As wider operational risk losses diverge significantly, it is important to gain a deeper understanding of drivers of such losses across countries and banks, and to identify possible drivers or lessons where losses are low.

Improving data governance is crucial for managing the complexities associated with AI adoption in the banking sector. Implementing robust data governance frameworks ensures the accuracy, reliability, and security of data used in and outputs of AI models, with regular audits and assessments of data quality being integral parts of these frameworks.

Banks should ensure sufficient resources to invest in their medium-term businesses, cautiously plan their distribution policies and capital allocations. Solid capital reserves are an important element of banks' capacity to handle emerging risks and ensuring investments are made for future business sustainability.

Annex: Sample of banks

Name	Country	Risk Indicators	2024 Transparency Exercise	RAQ, autumn 2024
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	
Raiffeisen-Holding Niederösterreich-Wien	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
Euroclear Holding	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
UniCredit Bulbank AD	Bulgaria		x	
United Bulgarian Bank AD	Bulgaria		x	
First investment 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
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
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
Banque centrale de compensation	France	x*	x	
ATLANTIC LUX HOLDCO S.A 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	
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	
MBH bankcsoport	Hungary	x	x	x
OTP-csoport	Hungary	x	x	x
Arion banki hf	Iceland	x	x	x
Íslandsbanki hf.	Iceland	x	x	x
Landsbankinn hf.	Iceland	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 Europe plc	Ireland	x	x	
Citibank Holdings Ireland Limited	Ireland			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	x
BANCO BPM SOCIETA' PER AZIONI	Italy	x	x	x
BPER Banca S.p.A.	Italy	x	x	x
CASSA CENTRALE BANCA - CREDITO COOPERATIVO ITALIANOSOCIETA' PER AZIONI (IN SIGLA CASSA CENTRALE BANCA)	Italy	x	x	
CREDITO EMILIANO HOLDING SOCIETA' PER AZIONI	Italy	x	x	
FINECOBANK BANCA FINECO S.P.A. (IN BREVE FINECOBANK S.P.A. OVVERO BANCA FINECO S.P.A. OVVERO FINECO BANCA S.P.A.)	Italy	x	x	
ICCREA BANCA S.P.A. - ISTITUTO CENTRALE DEL CREDITO COOPERATIVO (IN FORMA ABBREVIATA: ICCREA BANCA S.P.A.)	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 sabiedrība "Citadele banka"	Latvia	x	x	
AS "SEB banka"	Latvia		x	x
Swedbank Baltics AS	Latvia		x	x
LGT Group Foundation	Lichtenstein	x	x	
Liechtensteinische Landesbank AG	Lichtenstein	x	x	
VP Bank AG	Lichtenstein	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'Épargne de l'Etat, Luxembourg	Luxembourg	x	x	x
Banque Internationale à Luxembourg	Luxembourg	x	x	x
BGL BNP Paribas	Luxembourg		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	
RBS Holdings 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 Oszczedności 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, S.A.	Portugal	x	x	x
LSF NANI INVESTMENTS S.A 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	
CEC BANK SA	Romania	x	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 Ljubljanska Banka d.d., Ljubljana	Slovenia	x	x	x
OTP LUXEMBOURG S.A R.L.	Slovenia		x	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



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