



European
Commission

***EUROPEAN FINANCIAL
STABILITY AND
INTEGRATION
REVIEW 2024***

Banking and
Finance

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European Financial Stability and Integration Review 2024

European Commission

Directorate-General for Financial Stability, Financial Services and Capital Markets Union

European Commission

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European Financial Stability and Integration Review (EFSIR)

This document has been prepared by the European Commission's Directorate-General for Financial Stability, Financial Services and Capital Markets Union (DG FISMA).

This document is a European Commission staff working document for information purposes. It does not represent an official position of the Commission on this issue and does not anticipate such a position. It is informed by the international discussion on financial integration and stability, both among relevant bodies and in the academic literature. It presents these topics in a non-technical format that remains accessible to a non-specialist audience. For information on the methodology underlying, and the quality of, the data used in this publication, users should, where the source is neither Eurostat nor other Commission services, contact the referenced source.

CONTENTS

Acknowledgements	3
List of abbreviations	4
Executive summary	5
Chapter 1 The macroeconomy, market developments, financial stability and financial integration	7
1.1 Macroeconomic developments	7
1.2 Financial market developments	9
1.3 Financial stability	11
1.4 Financial integration.....	15
Chapter 2 Rise of the investment funds sector and its financial stability implications	18
2.1 The rise of investment funds	18
2.2 Financial stability risks.....	21
2.3 Recent enhanced EU regulatory policy toolkit.....	28
Chapter 3 Third-country dependencies in EU financial services	31
3.1 Introduction	31
3.2 Card payments	33
3.3 Banking.....	35
3.4 Insurance and reinsurance	43
3.5 Equity and bond markets	46
3.6 Asset management.....	49
3.7 Clearing and settlement services	51
3.8 Credit ratings market	53
3.9 Main conclusions.....	56
References	58

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LIST OF ABBREVIATIONS

Countries (in alphabetical order)

AL	Albania	IS	Iceland
AT	Austria	IT	Italy
BE	Belgium	JP	Japan
BA	Bosnia and Herzegovina	LT	Lithuania
BG	Bulgaria	LU	Luxembourg
BM	Bermuda	LV	Latvia
CA	Canada	MC	Monaco
CH	Switzerland	MK	Republic of North Macedonia
CN	China	ME	Montenegro
CY	Cyprus	MT	Malta
CZ	Czechia	NL	Netherlands
DE	Germany	NO	Norway
DK	Denmark	PL	Poland
EE	Estonia	PT	Portugal
EL	Greece	RO	Romania
ES	Spain	SE	Sweden
FI	Finland	SG	Singapore
FR	France	SI	Slovenia
HR	Croatia	SK	Slovakia
HU	Hungary	UK	United Kingdom
IE	Ireland	US	United States

Others

AIF	Alternative investment fund	IOSCO	International Organization of Securities Commissions
AIFMD	Alternative investment fund managers Directive	LBS	Locational banking statistics
BIS	Bank for International Settlements	LCR	Liquidity coverage ratio
CBS	Consolidated banking statistics	LMT	Liquidity management tool
CCP	Central counterparty	LTRO	Longer-term refinancing operations
CR	Credit rating	MFI	Monetary and financial institution
CRA	Credit rating agency	MMF	Money market fund
CRE	Commercial real estate	NAV	Net asset value
EA	Euro area	NCA	National competent authority
EBA	European Banking Authority	NFC	Non-financial corporation
ECB	European Central Bank	OECD	Organisation for Economic Co-operation and Development
EEA	European Economic Area	OEF	Open-end fund
EIOPA	European Insurance and Occupational Pensions Authority	OTC	Over-the-counter
ESMA	European supervisory authorities	PE	Private equity
ET	Exchange-traded	PEPP	Pandemic emergency purchase programme
ETF	Exchange-traded fund	PI	Portfolio investments
FDI	Foreign direct investments	RE	Real estate
FoFs	Funds of funds	REIF	Real estate investment fund
FSB	Financial Stability Board	RRE	Residential real estate
FX	Foreign exchange	RRF	Recovery and Resilience Facility
GDP	Gross domestic product	SME	Small and medium-sized enterprise
HF	Hedge fund	TNAs	Total net assets
HICP	Harmonised index of consumer prices	UCITS	Undertakings for collective investment in transferable securities
ICMA	International Capital Market Association	UCITSD	Undertakings for collective investment in transferable securities Directive
ICS	International card schemes	WHO	World Health Organization
IMF	International Monetary Fund		

EXECUTIVE SUMMARY

The European Financial Stability and Integration Review is published annually. It looks at recent economic and financial developments, and discusses specific issues pertaining to the financial sector that might pose challenges to financial integration and stability and raise policy issues.

Chapter 1 reports on recent economic and financial developments in the EU since 2023 up to the first quarter of 2024. Economic growth in the EU almost stagnated in 2023 as renewed geopolitical tensions, tighter financing conditions and subdued confidence weighed on economic activity. Headline inflation in the EU continued to decline over most of 2023 but increased slightly to 3.4% at the end of 2023. Gas and electricity prices are back at levels comparable with those before the recent energy crisis. Unemployment developed favourably, decreasing to 6.0% in the EU, its lowest level since the introduction of the euro.

Financial markets fluctuated considerably in 2023 on investors' monetary expectations and macroeconomic news. Overall, sovereign bond spreads diverged across the Member States, while corporate bond spreads (particularly high-yield bond spreads) narrowed over 2023 and into early 2024. EU stock markets started positively in 2023 but were set back by the abrupt market correction in March that was set in motion by the failure of three US medium-sized banks. Equity markets later recovered. In the last months of 2023 and in early 2024, markets rose on expectations of central bank rate cuts in the months ahead.

In that context, financial stability risks surged at the end of the first quarter of 2023, with the failure of several US banks and one Swiss bank, before receding by the end of the year. Overall, the financial system has been coping well with the normalisation of interest rates and the EU banking sector in particular has benefited from increased net interest margins, while containing risks on banks' balance sheets. Some risks nevertheless need to be monitored closely. In particular, vulnerabilities remain in the corporate sector due to tightened financial conditions and challenging macroeconomic conditions. Sovereign debt sustainability concerns have come down but remain high. Financial stability risks in commercial real estate have intensified. Rising interest rates reduced real estate valuations in some Member States and reduced the sector's debt-servicing capacity.

EU financial integration stabilised in 2023 following a decline in 2022 that was due to Russia's full-scale invasion of Ukraine and increased geopolitical uncertainty. Overall, financial integration has demonstrated substantial resilience in recent years in the face of major shocks, although some market segments such as banking have become more fragmented.

Chapter 2 focuses on the growth of the investment fund sector in the EU. Assets held by EU investment funds have tripled in value since the 2008 global financial crisis. This rapid rise has increased the sector's importance for the financing of the real economy and the functioning of the financial system but has also given rise to financial stability concerns. Liquidity mismatches and leverage in this sector can contribute to or exacerbate system-wide risks to financial stability. Monitoring liquidity and leverage can help in detecting risks to financial stability in a timely manner.

As for liquidity, effective surveillance of liquidity mismatches requires financial stability indicators to be comprehensive and to take account of the potential magnitude of liquidity shocks and the mitigating effects of liquidity management tools (LMTs). The recent amendment of the EU legislative framework for investment funds (the AIFMD and the UCITSD) obliges open-

ended investment funds to manage potential liquidity mismatches via at least two appropriate LMTs while money market fund managers are required to select one additional LMT.

As for leverage, risks can manifest themselves suddenly. Monitoring efforts therefore need to be sustained even if prevailing levels of leverage for most EU investment funds are currently low.

Chapter 3 analyses the reliance of EU financial services on third-country operators. This analysis confirms that the EU's financial system is open and very interconnected with global markets. Third-country operators, especially those located in G7 jurisdictions, participate significantly in EU's financial services markets and particularly in sectors such as commercial banking and reinsurance. Third-country operators also enjoy dominant positions in sectors such as derivatives clearing, credit ratings and card payments.

Sectors could be vulnerable if they depend too much on a limited number of providers, particularly if such providers cannot be easily replaced. When critical financial services are mainly provided by third-country operators, financial stability risks may arise (for example, in the event of abrupt termination of a business). Likewise, limited EU regulatory, supervisory and resolution powers over financial services providers located outside the EU may limit the EU's economic and financial autonomy (for example, in the event of regulatory divergence between the EU and third countries).

Monitoring the EU's dependencies on third countries remains important in the current context, although at present such dependencies mainly concern financial operators located in G7 partners' jurisdictions that implement internationally agreed standards and cooperate with the EU on regulatory and supervisory matters. Risk assessments should also consider potential difficulties in replacing third-country critical providers with EU-based or other third-country providers. In addition, continuing to advance the Capital Markets Union and Banking Union, and seeking to broaden clearing capacity in the EU would increase the EU's resilience and its ability to mobilise capital and attract foreign investment.

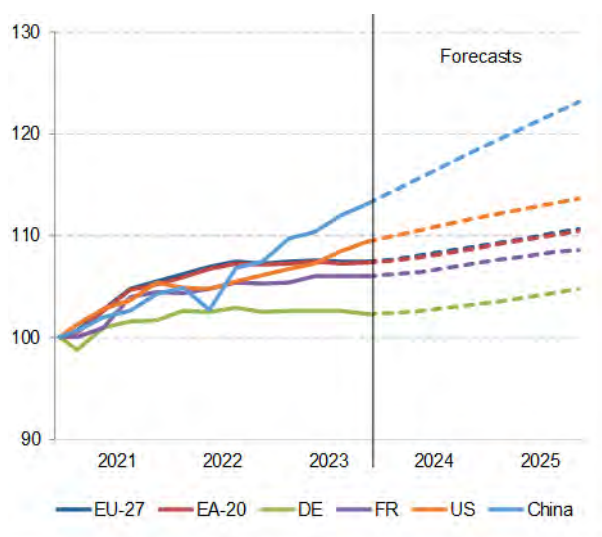
CHAPTER 1 THE MACROECONOMY, MARKET DEVELOPMENTS, FINANCIAL STABILITY AND FINANCIAL INTEGRATION

1.1 Macroeconomic developments

Economic activity broadly stagnated over 2023. There was modest year-on-year real GDP growth of 0.4% in the EU and the euro area (EA), as subdued confidence, continuing and new geopolitical tensions, and tighter financing conditions all weighed on activity (including investment and consumer spending).

Growth was subdued in the first half of 2023, with a quarter-on-quarter (q-o-q) growth rate of 0.1% (0.0%) in Q1 and 0.1% (0.1%) in Q2 in the EU (EA). Positive growth contributions from net trade were largely offset by negative contributions from private and public consumption, because inflation remained high and continued to limit disposable income and because fiscal support was partially withdrawn. The economy just avoided a technical recession in the second half of 2023¹. Changes in inventories were the main negative driver in Q3, in part due to the unwinding of the strong inventory build-up in Q2.

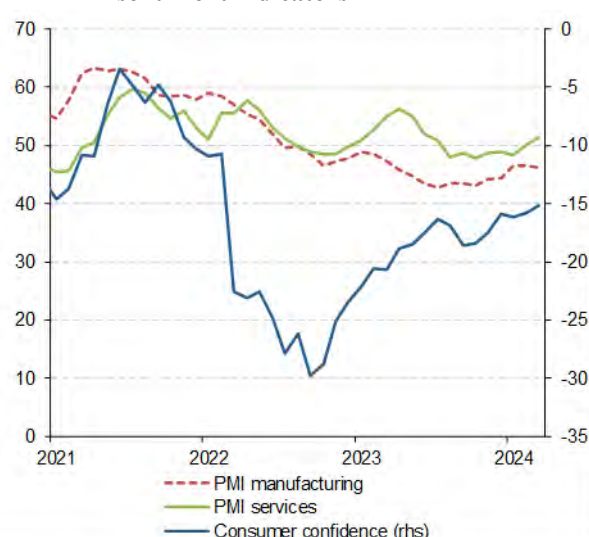
Chart 1.1: GDP growth



Sources: OECD and European Commission (2024), *European economic forecast winter 2024*; Institutional Paper 268, February 2024; and IMF, *World economic outlook update*, January 2024.

Note: indexed data (Q1 2021 = 100). Q-o-q growth of quarterly GDP, except that forecasts for US and China are based on y-o-y growth of yearly data.

Chart 1.2: Euro area business and consumer sentiment indicators



Sources: S&P Global; European Commission (DG ECFIN) (2024), *Business and consumer survey results*, 27 March 2024.

Note: monthly data, index points.

Weaker demand and tightening financing conditions weighed significantly on manufacturing and construction. Services (particularly leisure activities) were more resilient, especially at the start of 2023. Momentum also faded later in the services sector as the impact of higher interest rates broadened.

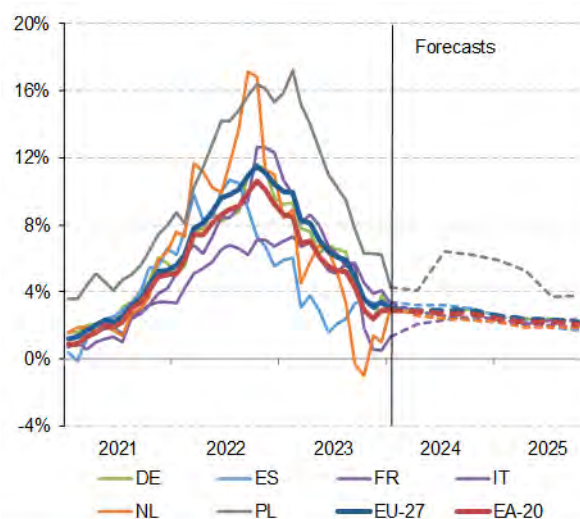
Overall growth figures also mask considerable divergence between Member States. Real GDP contracted slightly in Germany (-0.3%). By contrast, real GDP growth was moderately positive in Italy (+0.9%) and France (+0.7%) and stronger in Spain (+2.5%).

¹ Q-o-q real GDP growth in the EU (EA) was 0.0% (-0.1%) in Q3 and 0.0% (0.0%) in Q4.

Economic growth is expected to gradually pick up in 2024 due to a rebound in consumption² and an increase in export growth thanks to improving foreign demand (see Chart 1.1). The manufacturing sector is expected to drag on economic growth while services will continue to drive growth.

The impact of the economic slowdown on the labour market was cushioned in 2023 by labour market tightness driven by skill shortages and strong demand. The unemployment rate returned to its lowest levels since the introduction of the euro, decreasing to 6.5% in the EA and 6.0% in the EU in January 2024.

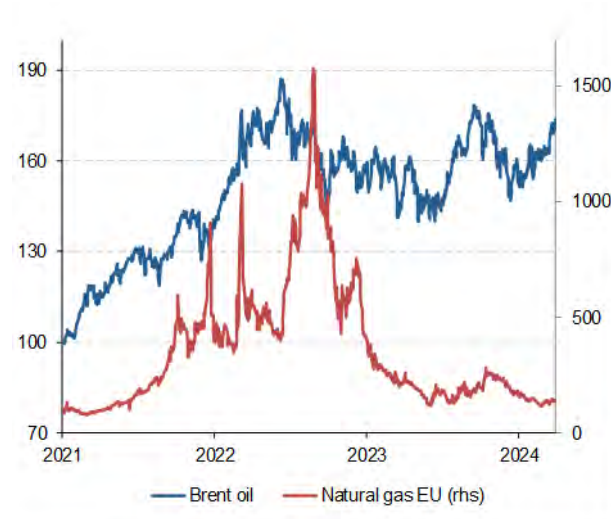
Chart 1.3: HICP inflation – EU Member States



Source: Eurostat and European Commission, *European economic forecast winter 2024*, Institutional Paper 268, February 2024.

Note: headline data, y-o-y % change. Monthly data (except forecasts which are based on quarterly data). HICP stands for harmonised index of consumer prices.

Chart 1.4: Brent oil prices and natural gas



Source: Bloomberg Finance L.P.

Note: daily data, indexed (Jan 2021 = 100). Brent oil in USD/barrel and natural gas in EUR/MWh.

Headline inflation continued to decline in 2023, ending the year at 3.4% y-o-y in the EU and 2.9% in the EA (see Chart 1.3). Gas and electricity prices have continued to decrease in the EU to levels close to those before the 2021-2022 energy crisis. EU headline inflation decreased further in line with expectations to 2.6% in April 2024, while inflation in the EA was at 2.4% in April 2024.

The progressive firming of core inflation in H1 2023 set the EU's monetary authorities on a path of more forceful monetary tightening. The European Central Bank (ECB) continued normalising its main monetary policy instruments until September 2023, lifting policy rates by 200 bps and bringing the interest rates on the main refinancing operations, the marginal lending facility and the deposit facility to 4.50%, 4.75% and 4.00% respectively. In line with this, the central banks in Sweden and Denmark increased their policy rates to 4.0% and 3.75% respectively. In central and eastern Europe, however, some central banks started to cut their policy rates³.

The latest available data for Q3 2023⁴ suggest that the general government deficit-to-GDP ratio in the EU declined over 2023, helped by the phasing-out of energy support measures to 2.8% of

² A rebound in consumption is expected following real wage growth in a context of decelerating inflation.

³ Poland cut policy rates from 6.75% in September 2023 to 5.75% in February 2024; Hungary cut them from 13% in October 2023 to 10% in January 2024; and Czechia cut them from 7.0% in December 2023 to 6.25% in February 2024.

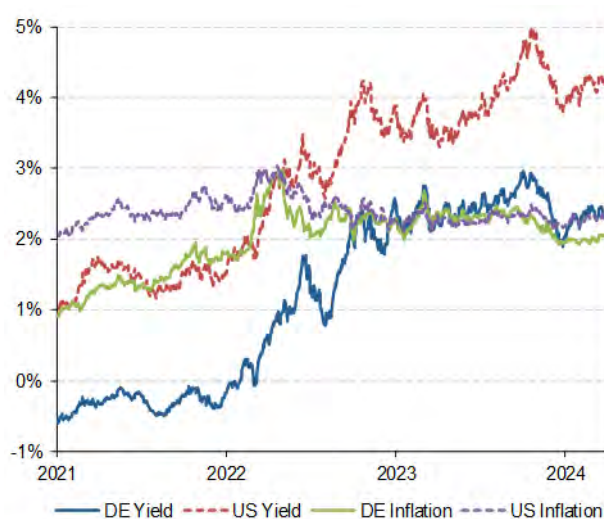
⁴ In the EA, the general government deficit-to-GDP ratio declined to 2.8% in Q3 2023 from 5.1% at the end of 2022, while the debt-to-GDP ratio declined to 90.0% in Q3 2023 from 91.0% at the end of 2022.

GDP, compared with 4.9% at the end of 2022. The EU debt-to-GDP ratio was 82.6% in Q3 2023, compared with 83.5% at the end of 2022.

1.2 Financial market developments

Financial markets swung in 2023 in accordance with investors' perceptions of future monetary policy actions and developments in the macroeconomic outlook. Headline inflation fell below its peak, so real yields moved higher. Returns on sovereign bonds and equity continued to move in the same direction, limiting investors' options to diversify. In March, however, the collapse of three medium-size US banks and the problems at Credit Suisse caused some turbulence in the banking sector and financial markets, including the EU's financial markets. Risk sentiment abated quickly, however, because EU banks were well-capitalised and supervised. In addition, the increased tensions in the Middle East in October had only a short-lived and moderate effect on markets.

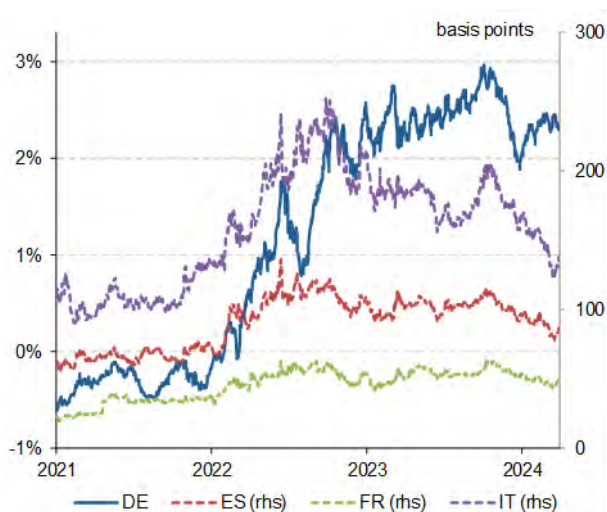
Chart 1.5: Sovereign bond yields and expected inflation



Source: Bloomberg Finance L.P.

Note: 10-year maturity bond daily data. 10-year inflation expectations based on the break-even inflation rate on inflation-linked bonds.

Chart 1.6: Sovereign bond spreads



Source: Bloomberg Finance L.P.; and DG FISMA calculations.

Note: spreads are calculated against the 10-year German Bund yield.

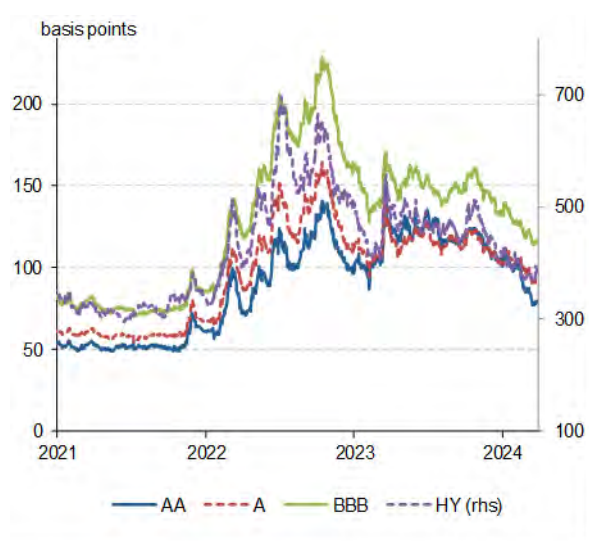
In bond markets, short- and long-term German Bund yields rose in the first months of 2023, driven by monetary expectations (see Charts 1.5 and 1.6). Investors expected a more pronounced and long-lasting monetary policy tightening because the underlying price pressures remained strong despite a decline in headline inflation. During the market turmoil in March, longer-term benchmark yields dropped significantly because investors took refuge in safe assets. As risk aversion later faded, benchmark bond yields rose again. The economic outlook clouded in Q4 2023 and longer-term risk-free rates decreased substantially due to an expectation that disinflation might be quicker than previously anticipated. All in all, 10-year German Bund yields ended 2023 15 bps lower than at the start of 2023 (see Chart 1.5). The inversion of the EA risk-free yield curve deepened further to -2.45% at the end of 2023. US Treasury yields rose in Q1 2024, while German Bund yields also increased slightly because market participants expected slightly higher inflation and less frequent and later ECB policy rate cuts.

EA sovereign bond spreads diverged significantly across Member States in 2023. In most Member States with the strongest credit profiles, they oscillated within a rather tight range and

ended the year just marginally tighter than they started, showing only short-lived and modest pressure during the US banking sector turmoil in March, and in the autumn amid a weakening economic outlook. By contrast, EA sovereign bond spreads with lower credit profiles tightened significantly over the year and some of the widening observed in 2022 was reversed. Among the peripheral EA spreads, Greek sovereign bond spreads narrowed the most over the year by about 90 bps, particularly in Q4 2023 when the Greek sovereign credit ratings were effectively raised to investment grade⁵. They ended 2023 100 bps above 10-year German Bund yields. Portuguese spreads also narrowed substantially, supported by credit rating upgrades by all three rating agencies. They increased by about 35 bps to end the year at 65 bps above the 10-year German Bund yield. Italian spreads widened after the summer due in part to a worsening economic outlook and domestic fiscal developments. Italian spreads narrowed by 40 bps in 2023 to end at 160 bps above the 10-year German Bund yield, and narrowed still further by 20 bps in Q1 2024. Overall, EA peripheral spreads to the 10-year German Bund yield decreased considerably in 2023, despite the end of reinvestment under the ECB's asset purchase programme⁶. Non-EA sovereign bond spreads narrowed over the year, particularly in Hungary (about 200 bps) and to a lesser extent Czechia and Poland (both about 100 bps).

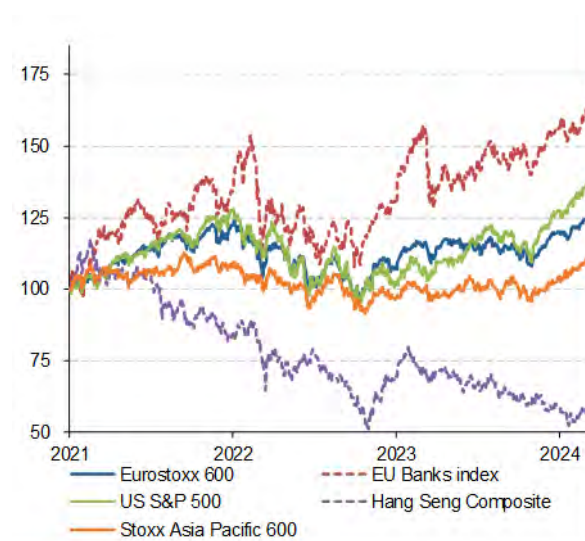
Corporate bond spreads narrowed in 2023, despite rising corporate funding costs, due to rather subdued corporate debt issuance, solid corporate balance sheets and an unusually long lag in the transmission from higher policy rates to the debt-servicing burden. High-yield corporate spreads tightened significantly over the year, while the spreads on investment-grade corporate bonds fluctuated only moderately and tightened slightly (see Chart 1.7). Within the investment-grade segment, spreads in financial corporate bonds narrowed the most.

Chart 1.7: Euro area corporate bond spreads



Sources: Bloomberg Finance L.P.; and DG FISMA calculations.
Note: 5-year maturity bond data. Daily data. Spreads are calculated against the 5-year German Bund yield. HY stands for high yield.

Chart 1.8: Stock market performance



Source: Bloomberg Finance L.P.
Note: daily data, indexed (January 2021 = 100).

⁵ In September, Moody's ratings agency upgraded the Greek credit rating by two notches from Ba3 to Ba1, just below investment grade. In October, S&P Global raised Greece's sovereign credit rating from BB+ (junk) to investment-grade BBB- in view of Greece's improved budgetary position. In December, Fitch followed suit, raising the rating to BBB-.

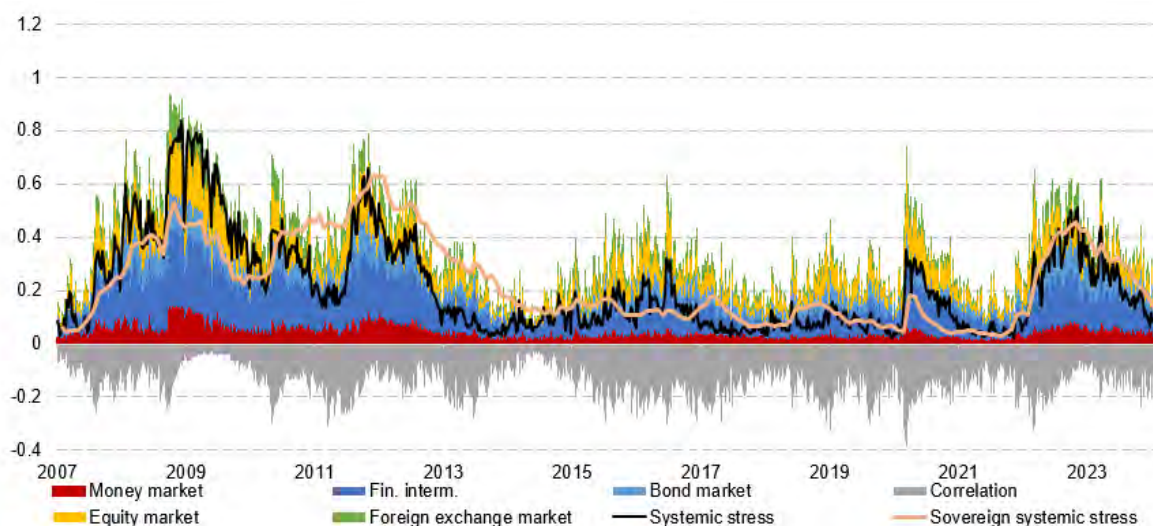
⁶ The flexibility of the pandemic emergency purchase programme (PEPP) reinvestment, the ECB's Transmission Protection Instrument (TPI) and the Recovery and Resilience Facility, whose absorption has increased over 2023, have prompted market participants to reassess credit risk.

EU stock markets started the year on a positive footing (see Chart 1.8), driven by incipient signs of improving macro-financial conditions related to declining energy prices, a softening of inflation and China's economic reopening. The banking sector index outperformed in 2023, fuelled by robust profitability and other strong bank fundamentals⁷. This positive risk sentiment disappeared abruptly in March following the failure of three US medium-size banks and UBS' takeover of the troubled Credit Suisse. A broad-based sell-off followed that erased the gains earlier in the year. Bank stocks were hit particularly hard, including in the EU. Risk appetite resurfaced at the end of March, leading to higher valuations in equity markets. Midsummer, equity markets declined amid a deteriorating macroeconomic outlook, increases in longer-term discount rates and downward revisions of corporate earnings expectations. In October, tensions in the Middle East weighed briefly on general risk sentiment. A rally started in the last 2 months of the year, supported by the expectations that the monetary-tightening cycle was coming to an end and a mild economic growth outlook. The stock market continued to rally in Q1 2024 amid upbeat market sentiment and a decline in equity risk premiums, which more than offset lower earnings forecasts and slightly higher discount rates.

1.3 Financial stability

Concerns about financial stability remained elevated in 2023 and early 2024, albeit they started to abate from the high levels reached during the period of normalisation of interest rates. The level of systemic stress increased briefly in March 2023 after the failure of three US medium-sized banks and the troubles of Credit Suisse, but receded soon afterwards and until the end of the year to levels comparable with those in most years both before and after the global financial crisis (see Chart 1.9). This shows that the financial system has been coping well with the normalisation of interest rates.

Chart 1.9: Composite indicator of systemic stress (CISS)



Source: European Systemic Risk Board.

Note: the Composite indicator of systemic stress (CISS) measures the current state of instability, which is defined as the current level of frictions, stresses and strains (or their absence) in the financial system as a whole or, as an equivalent, the level of 'systemic stress'. The CISS comprises the following five financial system segments: bank intermediaries, non-bank financial intermediaries, money markets, securities (equities and bonds) markets and foreign exchange markets.

⁷ Improving net interest margins outweighed expectations of higher provisions from a deteriorating asset quality outlook. The ECB assessment concluded that the large banks' distribution plans were sustainable and that most banks would remain above relevant capital thresholds even in a 'sufficiently conservative adverse scenario' for the economy. This further supported the stock market performance of banks.

Financial stability risks (especially in the non-financial, banking and real estate sectors) are nevertheless being monitored closely because they remain very much present amid tighter financing conditions. In summary, the strong increase in real interest rates will impact the debt-servicing capacity of economic actors, while subdued growth prospects make corporates (particularly non-financial corporates with weaker credit profiles) more vulnerable. The litmus test may come in 2024-25 when large amounts of debt will mature⁸. Financial markets have until now adjusted well to the tightening of monetary policy but remain sensitive to geopolitical risks, economic growth forecasts and interest rate developments. Market volatility might pick up again if sticky inflation leads to further monetary tightening. Financial stability risks in real estate markets have increased, in particular because commercial real estate has experienced a sustained drop in prices. The three main risks to financial stability are discussed in further detail below.

1.3.1 Risks in the non-financial private sector

Overall, the non-financial corporate sector has coped well with the inflation shock that was accompanied by higher production costs and the lift in interest rates that started in 2022. The profitability⁹ of non-financial corporations (NFCs) has been strong. Debt ratios have declined over time¹⁰ and the interest coverage ratio – measured by earnings over interest expenses – remains high notwithstanding its recent decline. The EA’s aggregate interest coverage ratio decreased from 12.1 in Q4 2022 to 9.5 in Q2 2023 but remained above its long-term average of 7.3.

External financing became more expensive and difficult to obtain in 2023 because banks’ credit standards tightened significantly. NFCs can now fall back on increased internal financing¹¹, but loan growth to NFCs slowed down to very low levels and came to a standstill in the second half of 2023 and early 2024.

Bankruptcies have been rising in the EU and this trend is expected to continue in the near future due to the weaker macro-financial conditions¹². Overall, there are now more bankruptcies than before the COVID-19 pandemic¹³, although bankruptcy figures do differ across sectors. This also reflects the liquidation of corporations that became insolvent during the pandemic and the resolution of unprofitable companies¹⁴ that had managed to continue their activities thanks to pandemic support schemes and previously favourable financing.

As to the household sector, overall low debt-servicing costs and favourable labour market conditions mitigated debt sustainability concerns. Household vulnerabilities could increase over time because banks are further tightening the credit standards for housing mortgages and consumer credit. Particularly vulnerable are households in Member States with high unemployment rates (EL and ES), overvalued residential property (a.o. EE, LV, LU, SK and SE), prevailing variable-rate mortgages (especially EE, CY, LV, LT, PT, FI and SE; and, to a lesser

⁸ See also ESMA, [Report on trends, risks and vulnerabilities](#), ESMA50-524821-3107, 31 January 2024.

⁹ NFCs’ ratio of gross entrepreneurial income to gross value added rose to the high level of 48.08% (Q2 2023). NFCs’ gross operating surplus as a percentage of gross value added has also remained strong, although it declined slightly to 41.6% in Q2 2023 from 42.2% in Q4 2022 (40.8% on average over the last 10 years). Source: Eurostat, institutional sector accounts.

¹⁰ The ratio of EA debt securities and loans to GDP was 67.6% in Q4 2023 (76% on average over the past 10 years). For further details, see ECB data warehouse, QSA.Q.N.I9.W0.S11.S1.C.L.LE.F3T4.T._Z.XDC_R_BIGQ_CY._T.S.V.N._T.

¹¹ See ECB, [Survey on the access to finance of enterprises](#), 7 June 2023.

¹² See also Allianz, [Global insolvency outlook 2023-25. From maul to ruck?](#), Allianz Research, 18 October 2023.

¹³ See Eurostat quarterly and monthly data on business registrations and bankruptcies. For an analysis of Q4 2023 data, see Eurostat, [Q4 2023: Bankruptcies slightly up, registrations stable](#), news articles, 15 February 2024.

¹⁴ See Albuquerque, B. and Iyer, R., [The rise of the walking dead: zombie firms around the world](#), IMF Working Paper 203/125, 16 June 2023.

extent, IE, EL, IT, MT, AT and SI) and/or high debt-to-disposable income ratios (DK, CY, LU, NL, FI and SE).

1.3.2 Risks in the real estate sector

Vulnerabilities in commercial real estate (CRE) increased in several Member States (particularly DE and SE) in 2023. The sharp increase in interest rates, including in long-term yields, decreased valuations and reduced the sector's debt-serving capacity. Prices in CRE declined, particularly in the office and retail segments. The latter face structural challenges that are exacerbating the cyclical downturn¹⁵. The price correction in EU CRE markets remained broadly contained and risks appear less severe than those experienced in the US and the UK. The price correction and increased funding costs nevertheless caused a sharp slowdown in CRE transaction volumes that even surpassed the decrease in volume due to the 2008 global financial crisis. Investment volumes in CRE markets also dropped sharply in several Member States. For instance, investment volumes in Germany fell by 68% compared with 2022. Overall, EU CRE firms remain in a challenging position, squeezed between declining profitability and elevated financing costs. The latter is particularly problematic because the sector faces relatively large refinancing needs in the upcoming years.

Residential real estate markets have seen modest and orderly price declines since Q4 2022, when residual real estate was significantly overvalued in many Member States. Pent-up demand and the large pool of private savings accumulated during the COVID-19 pandemic are keeping prices high in many Member States. Demand for mortgages nevertheless declined due to higher interest rates, tighter credit standards, low consumer confidence and increasingly weaker housing market prospects.

As regards financial stability, the financial system is significantly exposed to the real estate sector, but the diversification of funding across banks and non-banks has some positive implications for financial stability. Systemic risks of banks are expected to be limited thanks to an increase in capital buffers and exposures that are less risky than those prevalent during the 2008 global financial crisis. Real estate sector exposures have traditionally had more impaired assets (even in 'good times'), so banks have always applied stricter lending standards and will probably further reduce their risk tolerance, particularly with respect to CRE exposures. Three other factors are mitigating financial stability risks in the EU banking sector. Firstly, CRE exposures in the EU are spread more evenly across large and small banks than in the US, where CRE exposures are concentrated in regional banks. Secondly, cash flow risk is lower than during the 2008 global financial crisis and this is reducing the pressure to force liquidation. Thirdly, EU bank exposure to US CRE is rather limited.

As regards non-banks, there are some risks related to real estate investment funds (REIFs) due to reduced inflows, rising redemptions and a sharp rise in funding costs for levered REIFs. Some REIFs (especially open-ended REIFs that operate without appropriate notice periods or redemption terms) are also vulnerable to unrealised losses and liquidity mismatches. REIFs may face increasing outflows as yield prospects on other assets rise.

¹⁵ Risks are more prominent in the Nordic countries (particularly Finland and Sweden) and Germany. Several large property groups in Sweden have experienced rating downgrades and significant stock market losses due to their heavy reliance on bank funding and their preference for floating-rate loans.

1.3.3 Risks in parts of the banking sector

The EU banking sector proved resilient and benefited from the rapid increase in interest rates. Banks recorded strong profits and increased retained earnings thanks to substantially increased net interest income. Capital ratios remained solid¹⁶ and banks' liquidity coverage remained high, although it did decline after mid-2022 due to decreasing cash reserves.

As regards banks' asset quality, loans with increased credit risks which are not yet impaired (stage 2 loans) increased. The impact of the economic slowdown is expected to be more significant for exposures related to customers that are highly leveraged or sensitive to interest rate fluctuations (particularly those with unsecured corporate and retail exposures). CRE exposures – representing about 6.3% of total euro area banks' loans and 20% of their corporate loan portfolios – would be among the most affected. However, substantial credit losses in absolute terms could also result from exposures collateralised by residential real estate (RRE), which account for about 26% of banks' total loans and advances¹⁷. Contagion from the US CRE markets should be contained because the exposure is relatively low (albeit concentrated in some individual banks). Banks made additional provisions for household mortgages and CRE exposures while reducing their provisions for NFC loans.

A sharp repricing of financial assets may trigger a disorderly correction in financial markets that has systemic consequences. EA banks have hedged approximately 60% of the interest rate exposure in their portfolios against an increase in interest rates, but they are particularly exposed to a widening of sovereign credit spreads because these exposures are mainly unhedged¹⁸. This also emerged from the EBA and ECB 2023 stress test exercises. In particular, banks in Central and Eastern Europe and in Southern Europe have high ratios of sovereign exposures to capital, so would be vulnerable if stress in sovereign bond markets were to pick up again¹⁹. Falling asset values and rising funding costs could feed speculation about the liquidity buffers of those banks that were most affected by the repayment of longer-term refinancing operations (LTROs). Furthermore, vulnerabilities in the non-bank financial sector may spark adverse market dynamics and possible wider contagion risk through forced asset sales, low market liquidity and procyclical selling behaviour. This would exacerbate the risk of disorderly conditions in financial markets through failures to settle trades and meet margin calls.

Looking forward, banks' profitability and solvency could be hit by subdued EU (and global) economic growth. Competitive pressure to lift customer deposits' remuneration or an increase in the cost of wholesale funding may increase banks' funding costs. Besides net interest margins, the January 2024 ECB EA bank lending survey suggests that banks' income from loans may be compressed due to a decreasing demand for loans by NFCs and households and tighter credit standards for riskier loans.

1.3.4 Other challenges

Sovereign debt sustainability concerns came down but remained high. Increased issuance activity by sovereigns was well absorbed by the markets, despite reduced asset purchases by the Eurosystem, because investors were attracted by higher yields. The government-debt-to-GDP ratio is set to continue decreasing, helped by inflation. Debt dynamics are nevertheless becoming

¹⁶ The CET1 ratio was 15.8% in September 2023, a y-o-y increase of 0.6 pps.

¹⁷ Both for CRE and RRE, the impact will be different across Member States due to the different composition of loan portfolios, indexation and overvaluation.

¹⁸ ECB, *Unrealised losses in banks' portfolios of bonds measured at amortised cost*, 28 July 2023.

¹⁹ This may also lead to further fragmentation in EA banks' funding conditions via the sovereign-bank doom-loop.

less favourable due to slower real growth, gradually increasing interest payments and projected primary deficits in several Member States. Government gross financing needs were mitigated by the NextGenerationEU package and the Recovery and Resilience Facility (RRF). However, gross financing needs remain sizeable in several Member States, mainly due to debt amortisations falling due and budget deficits. Fiscal slippage could reignite sovereign debt sustainability concerns and lead investors to reassess sovereign credit risk, which would push sovereign bond yields higher across the yield curve. In addition, the sustained balance sheet reduction by the ECB may weigh on sovereign bond yields, in particular those of peripheral sovereigns.

Other cross-cutting stability risks (e.g. risks related to energy market volatility and climate and cybersecurity risks) also remain relevant in the current environment ²⁰.

1.4 Financial integration

EU financial integration ²¹ stabilised in 2023 following a decline in 2022 due to Russia's war of aggression against Ukraine and increased geopolitical uncertainty. Quantity-based and price-based composite indicators of financial integration ²² bottomed out in 2022 (see Chart 1.10) but increased in 2023 to levels that still remain below those observed before Russia's full-scale invasion of Ukraine and the outbreak of the COVID-19 pandemic.

Chart 1.10: Price-based and quantity-based composite indicators of euro area financial integration



Source: ECB.

Note: the price-based composite indicator aggregates 10 indicators. The quantity-based composite indicator aggregates 5 indicators. A value of 1 corresponds to the highest degree of integration. The quantity-based indicator uses quarterly data between Q1 1999 and Q1 2023. The price-based indicator uses monthly data (converted into quarterly values) between Q1 1999 and Q3 2023.

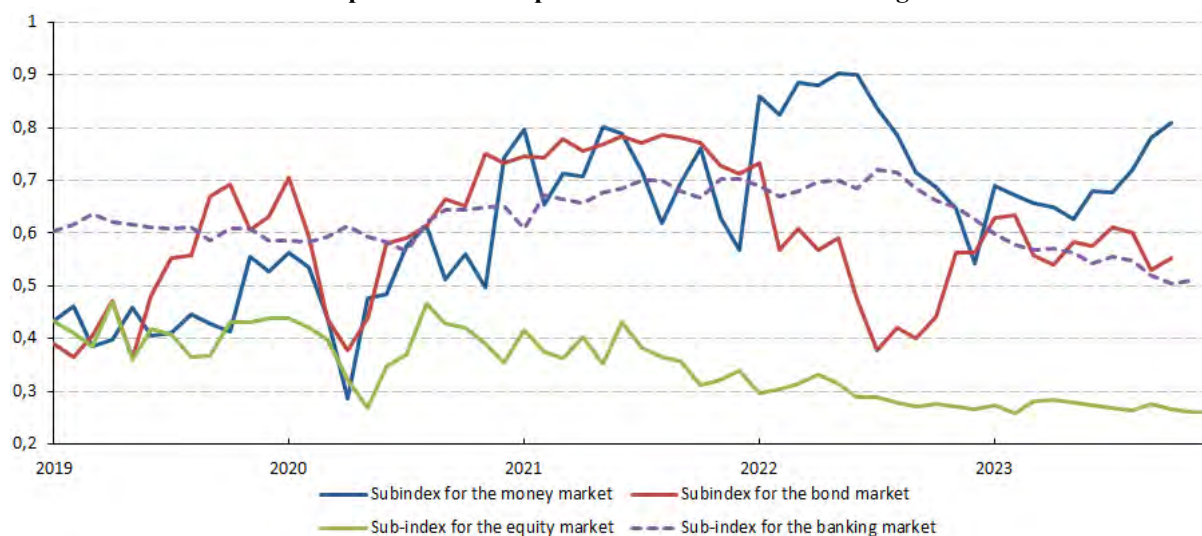
²⁰ See also European Commission, [European financial stability and integration review \(EFSIR\)](#), SWD(2023) 171 final of 7 June 2023.

²¹ For an in-depth analysis of integration in the euro area and more information on calculating the indicators, see European Central Bank (ECB), *Financial integration and structure in the euro area*, 18 June 2024. A further analysis for the EU-27 is included in the study prepared by CEPS for the European Commission: Alcidi, C., Postica, D. and Shamsfakhr, F., *Analysis of European capital flows in the global context*, March 2024.

²² The price-based composite indicator aggregates 10 indicators, while the quantity-based composite indicator aggregates five indicators. The indicators range from zero (full fragmentation) to one (full integration). For further details, see the statistical annex to the ECB, *Financial integration and structure in the euro area*, March 2020; and Hoffmann, P., Kremer, M. and Zaharia, S., *Financial integration in Europe through the lens of composite indicators*, ECB Working Paper 2319, September 2019.

Trends in price-based financial integration differed across financial market segments in 2023 (see Chart 1.11), partly due to geopolitical uncertainty and less favourable monetary and financing conditions. Money market integration has fluctuated the most since 2022. Following a sharp increase in the beginning of 2022 and a drop in the second half of 2022, it rebounded strongly in 2023. Bond market integration evolved in the opposite direction in 2022, decreasing in H1 2022 to rebound in H2 2022. This upward trend was not sustained in 2023, when bond market integration fluctuated in between 0.55 and 0.63. Equity market integration declined slightly in 2022-2023 and has not yet picked up. The banking market became steadily more fragmented after its previous peak in June 2022, but fragmentation slowed in Q3 2023.

Chart 1.11: Subindices of the price-based composite indicator of financial integration

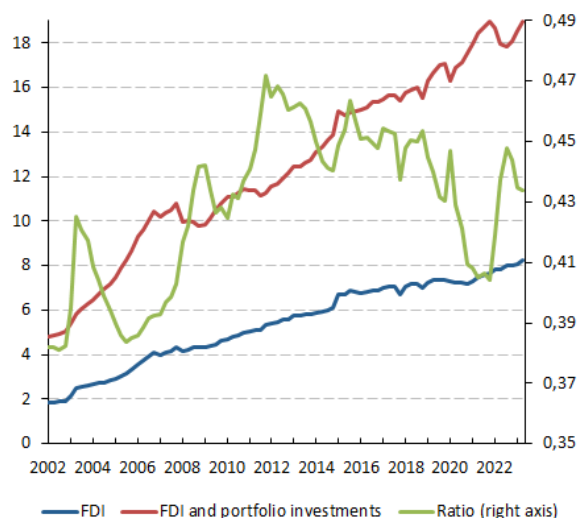
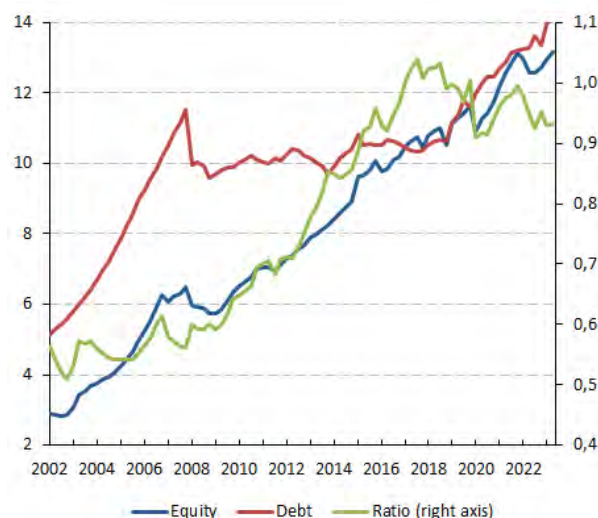


Source: ECB.

Note: monthly data for the period from January 2019 to September 2023.

Evaluating the quality and resilience of financial integration can provide further insights into structural developments in financial integration. Higher levels of foreign direct investment (FDI) and equity-like cross-border holdings are generally thought to promote high-quality and resilient financial integration²³. Financial resilience (as measured by the ratio of FDI to the total of FDI and portfolio investments – see Panel A of Chart 1.12) is currently close to its pre-COVID-19 levels. Total volume of FDI is following a steady long-term growth trajectory. Swings in the ratios of FDI to the total of FDI and portfolio investments therefore primarily reflect changes in cross-border portfolio holdings. A substantial decline in cross-border portfolio holdings in early 2022 caused the ratio to rise, reaching its local peak in Q3 2022 and then resuming a negative trend. The long-term upward trend in cross-border equity and debt investment has continued. The growth in cross-border equity holdings since the COVID-19 pandemic was interrupted in H1 2022 (see Panel B of Chart 1.12). It resumed in Q4 2022, but cross-border equity holdings have not yet caught up with cross-border debt holdings. Overall, the latter increased more steadily over the same period. Since the outbreak of the pandemic in the EU in Q1 2020, the ratio of intra-EU cross-border equity holdings to total holdings has fluctuated within a horizontal band below the pre-pandemic level and without showing any clear upward or downward trend.

²³ See also European Commission, [European financial stability and integration review \(EFSIR\)](#), SWD(2023) 171 final of 7 June 2023.

Chart 1.122: Cross-border investment in the EU by type of financial instrument**Panel A: Intra-EU-27 foreign direct investment and portfolio investment****Panel B: Intra-EU-27 cross-border holdings of equity and debt instruments**

Source: Alcidi, C., Postica, D. and Shamsfakhr, F., *Analysis of European capital flows in the global context*, March 2024.

Note: data are expressed in EUR trillion. The data period runs from Q1 2002 to Q2 2023. In Panel A, figures refer to end-of-period positions based on quarterly data for the EU (changing composition). Foreign direct investment (FDI) and aggregate FDI and portfolio investment in EUR trillion are on the left-hand side. The ratio (green line) is on the right-hand side. In Panel B, equity and debt figures in EUR trillion are on the left-hand side. The ratio (green line) is on the right-hand side. Equity is defined as the sum of FDI, portfolio equity investment and equity investment funds. Debt instruments are defined as debt securities in portfolio investment and other investment loans. Debt securities in FDI, which are intra-group operations and cannot lead to default, are excluded. The figures are based on quarterly data for the EU (changing composition) between Q1 2002 and Q2 2023.

Overall, both the indicators related to financial integration resilience and quality have fluctuated but have been resilient to major recent shocks such as the COVID-19 pandemic and Russia's full-scale invasion of Ukraine. The important regulatory and supervisory reforms of the last decade have reduced the risk of disintegration but continued efforts to promote measures to strengthen structural financial integration such as the Banking Union and Capital Markets Union remain important.

Chapter 2 RISE OF THE INVESTMENT FUNDS SECTOR AND ITS FINANCIAL STABILITY IMPLICATIONS

EU investment funds' assets have tripled in value since the 2008 global financial crisis. The role of the investment fund sector within the EU financial sector and in providing financial services to the real economy has therefore increased proportionately. This is in line with the Capital Markets Union objective of further developing market-based finance as an alternative diversified source of funding. The sector's growth has also raised financial stability concerns. Similar trends have been observed in other jurisdictions and concerns have been raised at the global level. This chapter analyses the rise of the investment fund sector in the EU and its financial stability implications, and discusses recent enhancements to the EU regulatory framework.

2.1 The rise of investment funds

The investment fund sector in the EU has grown significantly since the 2008 global financial crisis. Investment funds held less than 9% of EU financial corporations' assets in 2009 but almost 16% by the end of 2023. The share of assets held by monetary and financial institutions (MFIs) (i.e. central banks, commercial banks and money market funds (MMFs)) declined by about 10 pps. In nominal terms, investment funds' financial asset holdings increased from around EUR 5 trillion to over EUR 17 trillion. This was broadly in line with global developments²⁴. It reflected the fact that the tightening of bank capital requirements in the aftermath of the global financial crisis limited the expansionary capacity of the banking sector (for example, bank credit to euro area residents declined in 2013-2014) and thus supported the rise of market-based funding alternatives²⁵. This underscores the pivotal role of the investment fund industry in providing finance to the economy, for both the private and public sector.

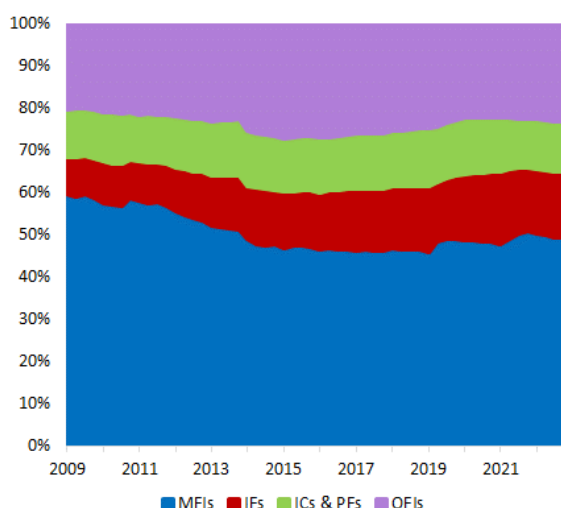
The growing value of assets held by investment funds was driven both by net inflows (i.e. subscriptions net of redemptions) and by positive valuation effects. EU open-ended funds (OEFs) and exchange-traded funds (ETFs) recorded positive net (i.e. excluding price changes, distributions and reinvested dividends) funding inflows in most years after 2009 (the exceptions were 2011 and 2022). Overall, net funding inflows accounted for about 64% of the total increase in these funds' nominal asset holdings between 2009 and 2023²⁶. They also benefited from positive asset price changes and investment returns (except in 2011, 2018 and 2022). This suggests a strong correlation between valuation effects and net funding flows.

²⁴ Financial Stability Board, [Global monitoring report on non-bank financial intermediation](#), 18 December 2023.

²⁵ See e.g. Darmouni, O. and Papoutsis, M., [The rise of bond financing in Europe: five facts about new and small issuers](#), ECB Working Paper 2663, December 2023.

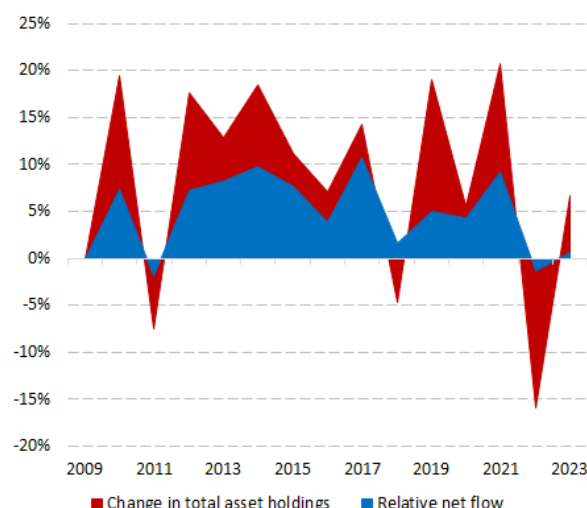
²⁶ Based on Morningstar data.

Chart 2.1: Market share of main financial sectors



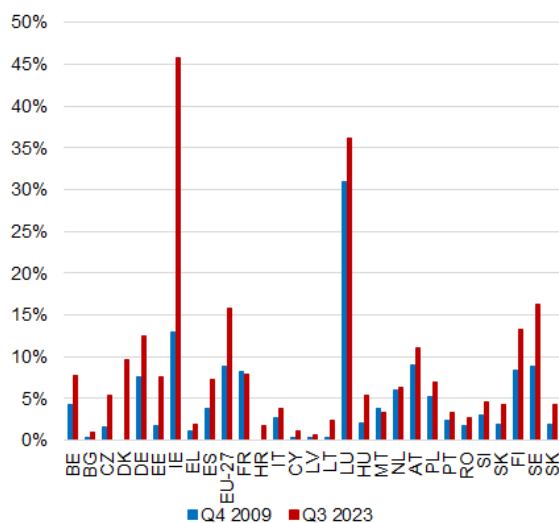
Sources: ECB; and DG FISMA calculations.
 Note: market share based on total financial assets using non-seasonally-adjusted and non-calendar-adjusted data. Figures are included for non-MMF investment funds (IFs), insurance corporations and pension funds (ICs and PFs), monetary financial institutions (MFIs) and other financial institutions (OFIs).

Chart 2.2: Changes in total assets and net flows



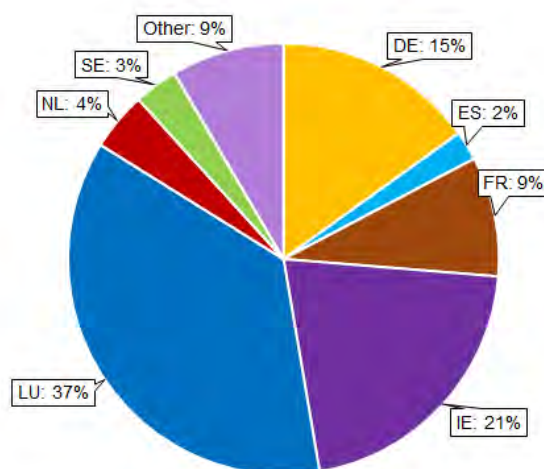
Sources: Morningstar; and DG FISMA calculations.
 Note: data refer to open-ended and exchange-traded funds. Changes in total net assets (TNAs) and relative net flows are expressed as a percentage of TNAs in the previous year. The difference between the two series reflects valuation effects.

Chart 2.3: Share of financial sector assets held by investment funds



Sources: ECB; and DG FISMA calculations.
 Note: figures represent the ratio of total financial assets held by investment funds relative to total financial assets held by all financial corporations.

Chart 2.4: Member States' shares of assets held by investment funds



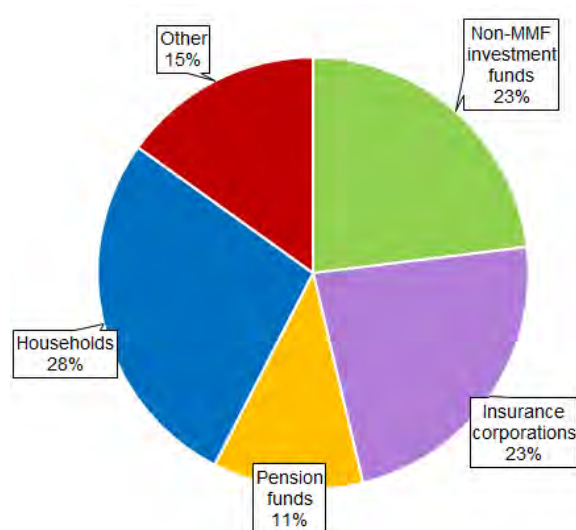
Sources: ECB; and DG FISMA calculations.
 Note: ratio of total financial assets held by investment funds in a given Member State to total financial assets held by EU investment funds in Q3 2023. Member States with a value below 2% are included in the 'Other' category. These Member States are (in descending order): DK, IT, BE, AT, FI, PL, HU, PT, MT, EL, SK, RO, EE, CY, SI, HR, LT, BG and LV.

The role of investment funds within the financial sector has increased in all Member States. However, the share of assets held by investment funds varies considerably between Member States. Investment funds hold almost half of the assets held by financial corporations in Ireland and a third of financial sector assets in Luxembourg, but they account for less than 10% of the assets held by financial corporations in 21 Member States. More than half of the EU investment fund assets are therefore held by investment funds located in Ireland and Luxembourg. This shows the role of these countries as fund domiciliation hubs. Furthermore, the fact that the

investment fund sector is highly interconnected with other financial sectors and the real economy underlines its growing systemic importance. Households were the largest direct investor group, holding 28% of EU investment fund shares in 2023. They were followed by insurance corporations and investment funds which both held 23% of EU investment fund shares/units, while pension funds held 11%. This shows that the investment fund sector is, together with insurers and pension funds, a major intermediation channel through which funding from households is transferred to other parts of the economy.

In terms of different fund types, the share of equity funds increased from 29% in 2009 to 33% in 2023; the share of bond funds decreased from 31% in 2009 to 22% in 2023; and the share of mixed funds decreased from 25% to 22% in 2023. Equity funds outperformed bond funds because low interest rates in the 2010s supported the return on equity investments²⁷. Market shares of real estate and other funds have also increased since 2009.

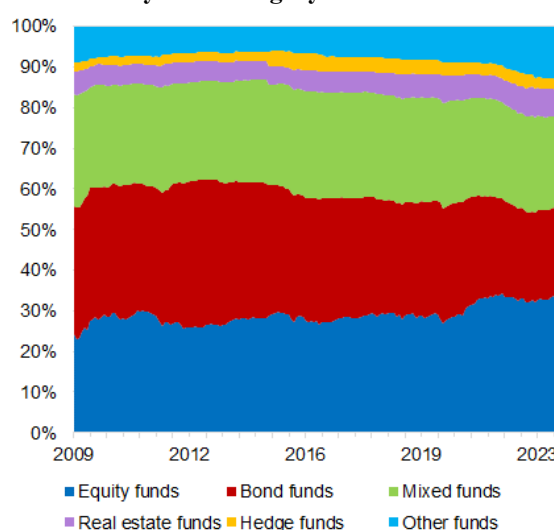
Chart 2.5: Investment fund ownership by sector



Sources: ECB; and DG FISMA calculations.

Note: quarterly data for Q3 2023. Ownership of investment funds units/shares by sector as a percentage of total units/shares. Sectors with a value below 5% are included in the 'Other' category. These sectors are (in descending order) non-financial corporations, general government, OFIs, banks and securitisation FVCs (financial vehicle corporations).

Chart 2.6: EU investment fund shares/units issued by fund category



Sources: ECB; and DG FISMA calculations.

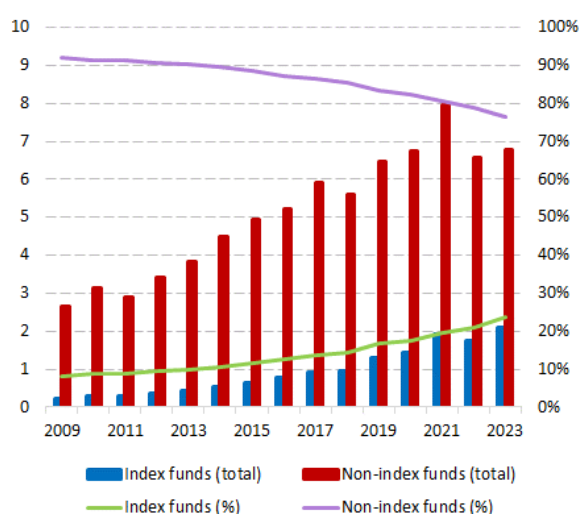
Note: shares and units issued by fund category as a percentage of total issued fund shares and units. Based on monthly data.

The growth of the EU investment fund sector has also been driven by its gradually shifting composition as assets held by passively managed funds have expanded faster than assets of actively managed funds. In particular, the share of passively managed index funds (i.e. funds tracking a certain index) increased from 8% in 2009 to almost 24% in 2023 (it exceeded 50% in the US²⁸). This reflects the fact that such funds provide simple access to diversified portfolios, even for small investors at favourable costs. For example, recent Morningstar data indicate that management fees of indexed funds in the EU were on average 65bps lower than for actively managed funds. ESMA has also concluded that, in terms of annual performance net of ongoing costs, the top 25% best-performing active equity funds underperformed the top 25% best-performing passive peers at the 10-year horizon²⁹.

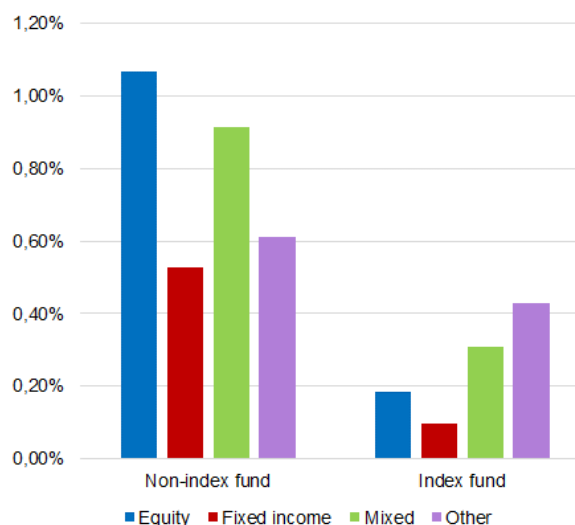
²⁷ ESMA, *Costs and performance of EU retail investment products 2023*, 18 December 2023.

²⁸ Cox, J., *Passive investing rules Wall Street now, topping actively managed assets in stock, bond and other funds*, CNBC, 18 January 2024.

²⁹ See footnote 27.

Chart 2.7: Market share of index and non-index funds in the EU

Sources: Morningstar; and DG FISMA calculations.
 Note: total net assets (TNAs) of index funds and non-index funds in EUR trillion (bar chart, left scale) and relative to total TNAs (line plots, right scale). Annual data.

Chart 2.8: Fund management fees

Sources: Morningstar; and DG FISMA calculations.
 Note: average management fees (excluding distribution fees) of open-ended and exchange-traded funds with assets under management greater than USD 100 million. Data as of 29 November 2023.

2.2 Financial stability risks

The growth of investment funds has made this sector more important for the functioning of the financial system and the financing of the real economy. The fact that credit risks borne by investment funds are directly passed on to end-investors prevents a larger concentration of risks. This can be seen as increasing financial stability. Liquidity mismatch and leverage are usually identified as two main sources of vulnerabilities within the investment fund sector having the potential to contribute to or even amplify system-wide financial stability risks³⁰. Liquidity mismatch means the difference between the liquidity of a fund's assets and liabilities and is therefore a source of liquidity risk. This can be compounded by leverage (i.e. increasing a fund's exposure to underlying investments beyond its net asset value).

At global level, the Financial Stability Board (FSB) issued its first recommendations on liquidity mismatch in open-ended funds in 2017. In its 2022 assessment of their effectiveness, it did not find any measurable reduction in the degree of structural liquidity mismatch³¹. It nevertheless acknowledged that the lack of data availability (e.g. on notice or settlement periods) constrained its analysis. The FSB issued revised policy recommendations to address structural vulnerabilities from liquidity mismatch in open-ended funds in December 2023³².

The European Systemic Risk Board³³ has shown that liquidity transformation by EU investment funds declined moderately in 2022, as they increased their cash holdings to their highest levels since 2012. However, some investment funds remained exposed to potential liquidity mismatches. For instance, open-ended real estate alternative investment funds (AIFs) invest in

³⁰ Financial Stability Board, [Enhancing the resilience of non-bank financial intermediation, progress report](#), 6 September 2023.

³¹ Financial Stability Board, [Assessment of the effectiveness of the FSB's 2017 recommendations on liquidity mismatch](#), 14 December 2022.

³² Financial Stability Board, [Revised policy recommendations to address structural vulnerabilities from liquidity mismatch in open-ended funds](#), 20 December 2023.

³³ European Systemic Risk Board, [EU non-bank financial intermediation risk monitor 2023](#), 8 June 2023.

assets which are inherently illiquid, but around 25% of them were offering daily redemptions to investors. Hedge funds also had high levels of leverage, with a gross leverage close to four times the net asset value (NAV), mainly due to derivatives exposures.

Systemic liquidity shortages can arise from unexpected jumps in liquidity needs (for example, due to margin calls that are larger than foreseen) and can be further amplified by unsustainable leverage levels that require sudden deleveraging via fire sales of assets and thus increase downward pressures in markets that are already strained. This happened, for example, during the March 2020 global financial market turmoil when all major central banks had to step in massively³⁴; and during the UK gilt market tensions in September 2022, which necessitated direct intervention by the Bank of England³⁵.

The magnitude of underlying financial vulnerabilities at a fund cohort level, specifically in terms of leverage and liquidity mismatch, is therefore useful for assessing potential systemic risk implications. The following two sections look in more detail at risks related to liquidity mismatches and leverage in the EU investment fund sector.

2.2.1 Liquidity mismatch and liquidity risk

Liquidity risk is the potential inability of a fund to meet payments (e.g. margin calls) or redemption requests according to the fund's rules (e.g. considering the redemption frequency, the notice period and the gates announced in advance to investors). It covers cases where a fund is unable to liquidate assets within a time frame compatible with its liabilities, or where a fund may be forced to sell assets at significantly reduced prices in order to gain liquidity. Such price declines can exacerbate financial instability. In addition, liquidity risks in investment funds can trigger significant market disruptions by eroding investor confidence, which often leads to increased redemption requests that drive asset prices further down. This chain reaction can create a feedback loop, where declining prices trigger more redemptions and thus increase financial instability.

Liquidity mismatch is one component of liquidity risk. It is the discrepancy between the redemption terms offered by a fund and the time required for its fund manager to liquidate its holdings in an orderly fashion. Liquidity mismatches and liquidity risks are closely intertwined but are distinctly different concepts.

Liquidity mismatches do not automatically lead to liquidity risks, which are driven by two key factors:

- the likely level of liquidity shock compared with the liquidity mismatch: for example, a redemption shock depends on various parameters, ranging from the type of investor to anti-dilution tools deployed by the fund (see also Section 2.3);
- the transmission of the liquidity shock to the investment fund: for instance, the use of some quantity-based liquidity management tools (LMTs³⁶) such as a redemption gate or

³⁴ For further details, see Financial Stability Board, [Holistic review of the march market turmoil](#), 17 November 2020.

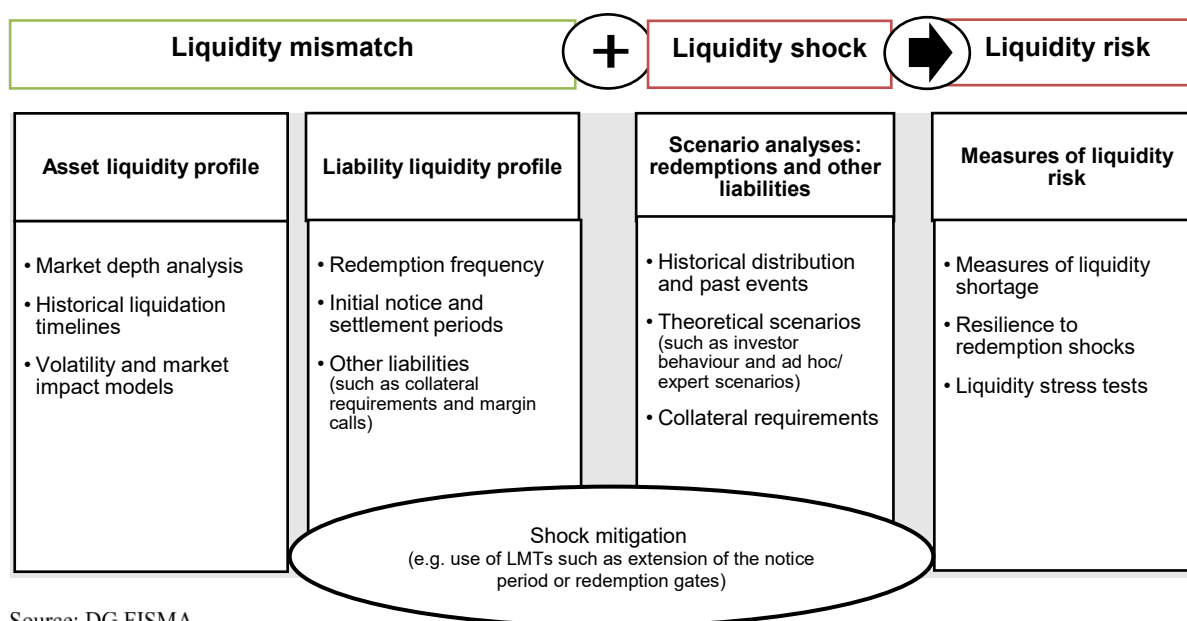
³⁵ Bank of England, [Bank of England announces gilt market operation](#), News Release, 28 September 2022.

³⁶ LMTs are a range of instruments designed to aid fund managers with the management of funds' liquidity needs or to alleviate the impact of redemptions. These include price-based anti-dilutions tools that pass transaction costs on to the subscribing/redeeming investors (e.g. redemptions fees, anti-dilution levies, and swing or dual pricing) as well as quantity-based tools that restrict or slow access to investor capital (e.g. extendable notice periods, redemption gates and suspension of redemptions).

an extendable notice period can delay the full transmission of redemption shocks, leaving more time for the fund manager to sell assets in line with its (active or passive) mandate.

Conflation of ‘liquidity mismatch’ and ‘liquidity risks’ often results in the inaccurate assumption that all investors could redeem their investments simultaneously and to the maximum possible extent, neglecting the mitigating role of available LMTs.

Figure 2.1: Liquidity risk stemming from liquidity mismatch



Source: DG FISMA.

Effective surveillance starts with an accurate diagnosis. It is therefore essential to clearly distinguish between liquidity mismatch and liquidity risks, and to employ comprehensive indicators that capture the complexity and multifaceted nature of liquidity risks. Such indicators measure, for example, the impact of LMTs on the level of liquidity risk and its evolution. They also identify funds and market segments where further measures should be taken to enhance preparedness and resilience against potential redemption shocks, thereby contributing to greater market stability (see Box 2.1 for details).

The AIFM and UCITS Directives³⁷ require asset managers to implement a robust liquidity risks management system that includes liquidity stress tests, which are an important tool for assessing potential liquidity risks. They are based on guidelines³⁸ issued by the European Securities and Markets Authority (ESMA), with test parameters determined by fund managers. These guidelines state that liquidity stress testing should be tailored to the individual fund; reflect the most applicable risks to a fund; be sufficiently extreme or unfavourable (yet plausible); sufficiently model how a manager is likely to act in times of stressed market conditions; and be embedded in the fund’s risk management framework.

³⁷ Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Fund Managers, OJ L 174, 1.7.2011 and Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS), OJ L 302, 17.11.2009.

³⁸ ESMA (2020), [Guidelines on liquidity stress testing in UCITS and AIFs](#), ESMA34-39-897, 16 July 2020.

Box 2.1: Liquidity risk indicators

A fund's liquidity mismatch indicator measures the difference between investors' redemption rights and the fund's capacity to liquidate assets in an orderly manner. For instance, Table 2.1 presents an extreme hypothetical example of a fund that allows its investors to redeem their shares daily without any prior notice while having 10% of its asset holdings in (or convertible to) cash within a day, implying a liquidity mismatch indicator (LMI) of 90%. If the fund required a longer notice period (e.g. 30 days), the LMI would be 50%.

Table 2.1: Example of a fund's liquidity profile

Time window	1 day	7 days	30 days	90 days	180 days
Liquidity profile of fund's assets (% of net asset value)	10	25	50	75	100
Redemption rights of fund's investors (% of total units/shares)	100				
Liquidity mismatch indicator (% of total units/shares)	90				

Source: DG FISMA.

Note: The liquidity mismatch indicator reports the percentage of redemptions that could be covered by the fund's available liquid assets in a scenario where all investors ask to redeem all of their shares or units on the same given day.

Other indicators that account for the size of the liquidity shock can refine the assessment of a fund's liquidity risks. The liquidity shortage indicator LS(X%) measures the liquidity gap to fully satisfy an aggregate redemption request of a specific size (X%). For example, a value of 15% for the measure LS (25%) indicates that the fund lacks 15% of liquid assets needed to meet a 25% redemption request. In addition, the use of LMTs can mitigate a fund's liquidity risk. The LS indicator makes it possible to consider this effect. For instance, in Table 2.2, a 15% redemption gate would reduce the liquidity shortage for a 25% redemption shock to 5%. Finally, the resilience-to-redemption shocks indicator (RRS) that gives the maximum redemption scenario that would not result in liquidity shortages can be used as an additional liquidity risk measure.

Table 2.2: Example of a fund's liquidity risk based on other liquidity mismatch indicators

Fund/liquidity indicators	without LMTs in place	with a 15% gate in place	with a notice period extended to 1 week
Liquidity shortage			
for a 10% redemption shock	0%	0%	0%
for a 25% redemption shock	15%	5%	0%
Resilience to redemption shock	10%	10%	25%

Source: DG FISMA.

For example, in Table 2.2, the fund would not face liquidity shortages if redemptions do not exceed 10% of total units/shares (RRS of 10%), while its resilience would increase to a 25% if the fund extends the notice period to 1 week (RRS of 25%).

As discussed above, when quantifying liquidity risks, it is important to understand the liquidity profiles of different fund types. The following analysis presents redemption levels for different types of EU domiciled funds, both within a longer time frame (from the beginning of 2019 until the end of 2023), and separately and in more detail for the most significant recent stress period around March 2020. The redemptions were calculated as monthly and daily net fund flows as a percentage of the previous month's net asset value (NAV), based on available Morningstar data

for EU domiciled funds. The analysis focused on the 10th percentile and the 1st quartile of funds experiencing the largest net outflows (i.e. funds with the largest 10% and 25% net redemptions in a given time period).

The key findings are summarised in Table 2.3 which captures net redemptions across different fund types and highlights the fact that UCITS equity and UCITS bond funds experienced the largest net outflows. However, the overall funding of REIFs and other AIFs remained more stable, with similar maximum monthly and daily net redemptions. The analysis underscores the importance of understanding the liquidity profiles and redemption behaviour for various fund types, especially in the face of increased market fluctuations and tensions.

Table 2.3: Dynamics of redemptions

	Monthly redemptions (%) 2019-2023		Daily redemptions (%) March 2020	
	1st quartile	10th percentile	1st quartile	10th percentile
UCITS equity	-3.33 to -0.41	-7.31 to -1.81	-0.49 to -0.02	-2.53 to -0.20
UCITS bonds	-6.77 to -0.36	-12.76 to -1.5	-1.02 to -0.01	-3.97 to -0.18
REIFs	-2.18 to 0.07	-4.49 to -0.01	-0.08 to 0.00	-0.66 to 0.00
Other AIFs	-1.87 to -0.26	-4.69 to -0.93	-0.24 to 0.01	-0.67 to -0.06

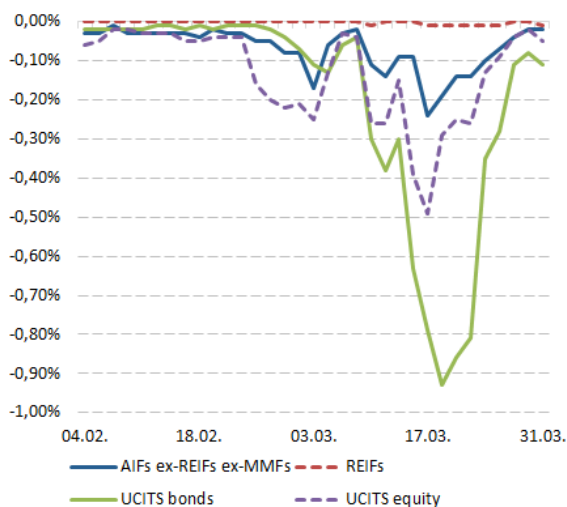
Sources: Morningstar; and DG FISMA calculations.

Notes: UCITS, REIFs and AIFs are undertakings for collective investment in transferable securities, real estate investment funds and alternative investment funds, respectively.

Looking more closely at the net daily flows during March 2020, there were some modest initial outflows at the beginning of the month which spiked following the announcement by the World Health Organization (WHO) of a global pandemic on 11 March. Net outflows significantly declined following the start of the ECB's pandemic emergency purchase programme (PEPP) on 26 March, which helped to calm the markets. Net daily outflows from all four fund segments were rather moderate, although their size differed between fund types and peaked at different dates. For both the 10th percentile and 1st quartile of funds, net daily redemptions were stronger for UCITS bond funds, followed by UCITS equity funds. The lowest net redemptions were recorded for REIFs, even though real estate sectors such as offices or shopping malls were heavily affected by the COVID-19 crisis. This is probably due to different redemption rules set by these funds (e.g. longer notice periods) as well as the tendency for their share prices to lag behind the valuation of the underlying assets.

Focusing on the 10th percentile of funds, net daily outflows from UCITS bond funds peaked on 20 March at around 4% of NAV. UCITS equity funds recorded smaller net redemptions, peaking at approximately 2.5% of NAV on 17 March. For AIFs other than MMFs and REIFs, net daily outflows were generally more muted and had already peaked (at 0.67% of NAV) on 3 March. REIFs experienced a peak net outflow of 0.66% of NAV on 20 March but, except for this day, their net daily redemptions did not exceed 0.085% of NAV in March 2020. Net daily redemptions for the 1st quartile of funds were generally much smaller, but overall reflected the pattern recorded by the 10th percentile. This demonstrates that, when estimating likely redemption shocks, it is essential to distinguish between different fund types and to take into account applicable redemption terms, such as notice and settlement periods.

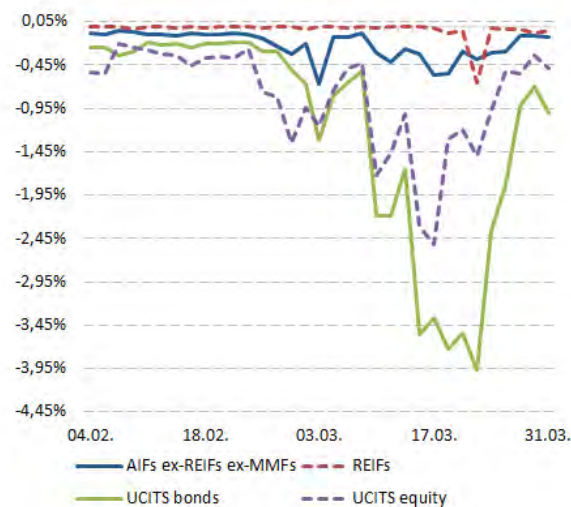
Chart 2.9: Net redemptions of investment funds with highest outflows (25% worst performing funds)



Source: Morningstar; and DG FISMA calculations.

Note: figures refer to investment funds belonging to the 1st quartile based on the size of the funds' net outflows to net asset value. Based on daily data for the period between 4 February and 31 March 2020. AIFs: alternative investment funds; REIFs: real estate investment funds; and MMFs: money market funds.

Chart 2.10: Net redemptions of investment funds with highest outflows (10% worst performing funds)



Source: Morningstar; and DG FISMA calculations.

Note: figures refer to investment funds belonging to the 1st percentile based on the size of the funds' net outflows to net asset value. Based on daily data for the period between 4 February and 31 March 2020. AIFs: alternative investment funds; REIFs: real estate investment funds; and MMFs: money market funds.

2.2.2 Leverage

Leverage can play an important economic role because it can magnify both returns and losses. In the case of investment funds, leverage takes the form of increasing the exposure to underlying investments beyond the net asset value. This may lead to higher returns for investors (e.g. on the underlying real estate portfolio), but leverage also poses risks to financial stability. In particular, various factors (e.g. a change in economic conditions or market sentiment, or margin calls) may trigger the sudden unwinding of leveraged positions in stress periods, with spill-over effects on other parts of the financial system and the economy.

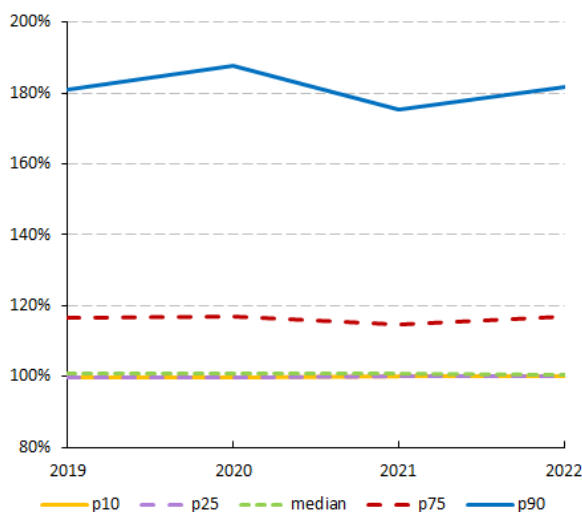
There are two types of leverage in investment funds. Firstly, financial leverage takes the form of cash borrowing³⁹ or securities financing transactions (e.g. repurchase or reverse repurchase agreements where the collateral is reinvested in another transaction). Secondly, synthetic leverage is obtained using derivatives or securities with embedded derivatives. Only those derivatives that are not used for hedging purposes generate leverage.

Data on leverage are only available for AIFs, which must disclose the level of leverage and are subject to regular monitoring by national competent authorities (NCAs) acting under the coordination of ESMA. In addition, NCAs have powers to introduce leverage limits for specific AIFs. In the case of UCITS, however, leverage levels are subject to strict limitations. UCITS should ensure that their global exposure relating to derivative instruments does not exceed the net value of their portfolio. Member States may authorise UCITS to borrow up to 15% of assets under certain circumstances. For MMFs, leverage is effectively prohibited because they can only use derivatives for hedging purposes and cannot reuse the collateral from securities lending transactions. They are also not allowed to borrow money.

³⁹ This assumes that the acquired cash is not kept as cash or cash equivalent but is used to gain exposure to other investments.

Overall, EU AIFs do not show substantial levels of leverage and most do not use leverage or do so only to a small degree. EU-wide data across AIF types show that the median adjusted leverage (measured as the ratio of regulatory assets under management to NAV excluding interest rate derivatives) hovers just above 100%, which indicates almost no use of leverage (median adjusted leverage was 100.8% of NAV in 2022). The top quartile indicates that overall AIF leverage rarely exceeds 120% of NAV.

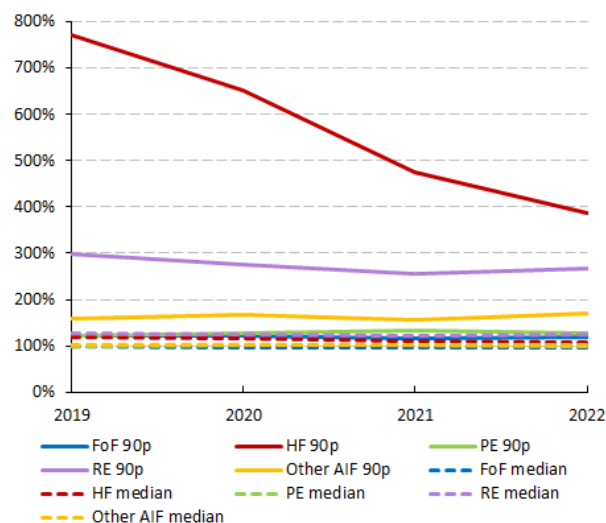
Chart 2.11: Leverage of EU AIFs



Source: ESMA calculations based on AIFMD data.

Note: adjusted leverage of EU AIFS. The adjusted leverage is based on the ratio of regulatory assets under management to net asset value excluding interest rate derivatives. Median value and values for the selected percentiles are reported in percentage of net asset value. A value of 100% indicates that the fund is unleveraged.

Chart 2.12: Leverage of AIFs by typ



Source: ESMA calculations based on AIFMD data.

Note: adjusted leverage of EU AIFS per fund category. The adjusted leverage is based on the ratio of regulatory assets under management to net asset value and excludes interest rate derivatives. Median value and values for the selected percentiles are reported as a percentage of NAV for funds of funds (FoFs), private equity (PE), hedge funds (HF), real estate (RE) and other AIFs.

As illustrated by Chart 2.11, no significant time trend can be observed for the overall AIF market in 2019-2022 (for which ESMA data are available), even as economic and financial market conditions changed substantially. The 10th, 25th, 75th percentile and median values were all remarkably stable. There were only some fluctuations in the level of leverage for the 10% of AIFs with the highest leverage, but there was no clear trend for leverage to increase or decrease.

Looking at different types of AIFs, private equity (PE), funds of funds (FoFs) and other AIFs have median leverage very close to 100% of NAV. By contrast, leverage tends to be somewhat higher among hedge funds (HFs) and real estate (RE) AIFs (median leverage of 106% and 123% of NAV in 2022 respectively). Median leverage declined somewhat for both types after 2019 (from 118.6% of NAV for HFs and 128.6% for RE AIFs).

Despite the overall low levels of leverage for most AIFs, there are some cases of AIFs with much higher leverage. To assess these, the 90th leverage percentile for the different AIF types is considered. This shows that for hedge funds the 90th leverage percentile of 388% was significantly higher in 2022 than for any other AIF segment and also well above the median level (see Chart 2.12). Nevertheless, the leverage of the 10% most leveraged hedge funds has decreased significantly from about 772% of NAV in 2019. This also notably contrasts with earlier

figures for HF leverage from ESMA, which were significantly driven by UK-domiciled hedge funds⁴⁰.

Leverage indicators are subject to limitations, which should be taken into account in order to correctly assess a fund's risk exposure. Firstly, leverage indicators are not adjusted for the risk profiles of funds. Two funds may have the same leverage but widely diverging risk profiles (for instance, due to different assessments of leverage on derivatives via the equivalent underlying approach). Under this approach, the impact of a derivative is calculated as if it were a direct investment in the underlying asset. The underlying asset can nevertheless respond differently to market factors. Secondly, the assessment of leverage is typically based on linear models that are not well suited to dealing with exposures to derivatives with non-linear pay-offs, such as binary options. The UCITS framework therefore permits the use of an absolute value at risk (VaR) limitation in such cases. Thirdly, leverage can be subject to mechanical increases or decreases during crisis periods.

In general, risk indicators such as VaR should complement more traditional leverage indicators to obtain a deeper understanding of the related financial stability risks. Despite the overall low leverage of EU AIFs, monitoring leverage of different segments of the investment funds market remains important because the related risks can build up quickly.

2.3 Recent enhancements of the EU regulatory policy toolkit

To mitigate the vulnerabilities related to liquidity and leverage risks, the EU has put in place a broad set of rules for investment funds, notably under the AIFM and UCITS Directives. These include rules on liquidity management that cover stress testing, disclosure and product governance. The EU policy toolbox has been further strengthened through the recent amendment of the AIFMD and UCITSD frameworks⁴¹. The amendments harmonise the rules for AIFMs that manage loan-originating funds, optimise supervisory data collection and increase the availability of liquidity management tools (LMTs) across the EU.

LMTs include price-based anti-dilution tools that pass on the transaction costs to subscribing/redeeming investors (e.g. redemption fees, swing or dual pricing⁴²) as well as quantity-based tools that restrict or slow down access to investor capital (e.g. via extendable notice periods, redemption gates or suspension of redemptions). Recent international discussions in the FSB and the International Organization of Securities Commissions (IOSCO) have emphasised the role of anti-dilution tools in passing liquidity cost on to investors when they sell their fund shares, particularly during stress periods. In its July 2023 consultation report, the FSB highlighted the risks associated with dilution in open-ended funds and the potential impact they may have on financial stability⁴³. In December 2023, the FSB issued updated recommendations for OEFs, which were complemented by IOSCO guidance⁴⁴. They suggest that OEFs should

⁴⁰ In the EU, the average adjusted leverage of hedge funds (including UK-domiciled funds) was 991% of NAV in 2019.

⁴¹ [Directive \(EU\) 2024/927 of the European Parliament and of the Council of 13 March 2024 amending Directives 2011/61/EU and 2009/65/EC as regards delegation arrangements, liquidity risk management, supervisory reporting, the provision of depositary and custody services and loan origination by alternative investment funds](#), OJ 2024/927, 26.3.2024.

⁴² Swing pricing is a pre-determined mechanism by which the net asset value of the units or shares of an investment fund is adjusted by the application of a factor ('swing factor') that reflects the cost of liquidity. Dual pricing is a pre-determined mechanism by which the subscription, repurchase and redemption prices of the units or shares of an investment fund are set by adjusting the net asset value per unit or share by a factor that reflects the cost of liquidity.

⁴³ Financial Stability Board, [Addressing structural vulnerabilities from liquidity mismatch in open-ended funds –revisions to the FSB's 2017 policy recommendations. consultation report](#), 5 July 2023.

⁴⁴ FSB and IOSCO publish policies to address vulnerabilities from liquidity mismatch in open-ended funds', [Financial Stability Board press release](#), 20 December 2023.

consider and use anti-dilution tools where appropriate to mitigate material investor dilution⁴⁵ and potential first-mover advantages arising from structural liquidity mismatches⁴⁶.

Following the recent amendment of the AIFMD and UCITSD frameworks, a common set of LMTs will become available for managers of open-ended funds (OEFs). These common tools include suspension of redemptions and subscriptions, side pockets, redemption gates, extension of notice periods, redemptions in kind as well as anti-dilution tools such as redemption fees, swing pricing, dual pricing and anti-dilution levies. OEF managers will have authority to suspend redemptions and activate side pockets in exceptional circumstances and will be required to select two additional LMTs (MMF managers will only be required to select one additional LMT) that are appropriate to their investment strategy, liquidity profile and redemption policy.

In order to ensure a uniform level of investor protection in the EU, ESMA has been tasked with developing guidelines on the selection and calibration of LMTs by OEF managers and draft regulatory technical standards specifying the characteristics of the LMTs listed in the amendments. ESMA will also develop guidelines for the national competent authorities when exercising their powers to request an OEF manager, after it has been consulted, to suspend redemptions where there are risks to investor protection or financial stability.

The new regulatory framework also addresses the leverage of a specific type of investment fund which has become more prominent in recent years. The rules described above have been complemented by new harmonised rules for loan-originating funds, which have also become subject to leverage limits⁴⁷. In particular, an AIFM must ensure that the leverage of a loan-originating fund that it manages represents no more than 175% of its NAV when it is open-ended and 300% of its NAV when it is closed-ended. NCAs can impose stricter leverage limits where necessary in order to safeguard the stability and integrity of the financial system.

2.4 Conclusion

The value of EU investment funds' assets has tripled since the 2008 global financial crisis and the role of investment funds within the financial sector has increased in all Member States. The growing value of assets held by investment funds has been driven both by net funding inflows and by positive valuation effects. The investment fund sector's high level of interconnectedness with other financial sectors and the real economy underlines its growing systemic importance. Liquidity mismatches and leverage are two main potential sources of vulnerabilities within the investment fund sector that have been identified as having the potential to contribute to or even amplify system-wide financial stability risks.

Effective surveillance of financial stability risks stemming from liquidity mismatches requires comprehensive indicators which take into account the potential magnitude of liquidity shocks and the mitigating effects of available LMTs. It is crucial to employ robust methodologies (including for constructing liquidity profiles) that assess the size of liquidity shocks and the

⁴⁵ The existing evidence on the size of investment fund dilution is very limited. For instance, Stahel concludes that dilution in UCITS bonds funds is on average small. For further details, see Stahel, C.W., [Dilution in UCITS funds: A shareholder protection or systemic risk concern?](#), 5 March 2024.

⁴⁶ A 'first-mover advantage' may occur when the redemption price for a fund's shares does not completely reflect the selling price of the underlying assets, leading to an anticipation of a further decrease in the fund's share price. Some investors (usually institutional investors), may then sell their shares before redemption costs are fully factored into the fund's share price.

⁴⁷ The leverage of a loan-originating AIF is expressed as the ratio of the AIF's exposure (calculated using the commitment method) to its NAV.

impact of LMTs promoted by recent regulatory reviews. Once the new EU rules have entered into application, OEF managers will be obliged to select at least two appropriate LMTs and MMF managers one additional LMT. They should thus have tools to manage risks related to potential liquidity mismatches. This is also in line with the recently revised FSB recommendations to address vulnerabilities from liquidity mismatch in OEFs.

EU AIFs are overall not highly leveraged. Most either do not use leverage at all or do so only to a small degree. No significant trend was observable for the overall AIF market in 2019-2022, even though economic and financial market conditions changed considerably. Despite the overall low leverage levels of EU AIFs, their monitoring remains important because related risks can build up quickly.

Chapter 3 THIRD-COUNTRY DEPENDENCIES IN EU FINANCIAL SERVICES

3.1 Introduction

In early 2021, the Commission published its communication on fostering the openness, strength and resilience of the European economic and financial system in the EU⁴⁸, which aimed to achieve a fair balance between the benefits and risks of open markets and economic interconnectedness with the rest of the world, at a time of intense discussion on the established economic international governance and an increasing trend towards fragmentation. One of the drivers of economic growth and financial stability is the presence of an effective financial system that allocates productive capital efficiently across the economy. Companies that have expanded their businesses into foreign markets have been supported in this process by investors willing to take risks. Over the past centuries, several financial centres have emerged across the globe, such as Amsterdam, Paris, Frankfurt, Geneva and London in Europe; Chicago, New York and San Francisco in the US; and Hong Kong, Singapore, Shanghai and Tokyo in Asia.

The strong interconnectedness between those financial centres and the web of financial institutions have prompted the international supervisory community to acknowledge the risks of contagion across borders and financial sectors; and to establish common standards and principles for the supervision and crisis management of banks, other financial institutions and market infrastructures.

The opening of EU markets to third-country operators has allowed markets to benefit from greater competition, risk diversification, and greater financing opportunities for both EU companies and citizens. The participation of third-country operators in the provision of EU financial services spans all the sectors and is well-known in the derivatives markets, credit ratings and retail payments. As noted in the Commission's 2021 communication, the EU's openness might nevertheless entail vulnerabilities in a context of heightened geopolitical uncertainty or in times of economic or financial stress.

Third-country financial service providers may scale back their business and focus on their domestic market when facing financial distress or under the coercion of their domestic government (e.g. when subject to diverging regulations or restrictive measures). Geopolitical events might also intrude, as observed in the EU following the start of Russia's full-scale invasion of Ukraine, when some subsidiaries of Russian banks had to be resolved at short notice and were unable to continue providing their services in the EU.

It must be noted that the discontinuity in the provision of services by third-country operators may potentially harm the EU economy. If critical services are interrupted or if such third-country operators have a systemic footprint at EU or national level, financial stability might be at risk.

The risks associated with the EU's dependencies on third-country financial service providers are driven by two main factors. Firstly, vulnerabilities arise when dependencies relate to highly concentrated sectors and there are limited alternative suppliers in the host country or in other third jurisdictions. This is obviously the case for critical market infrastructures. Secondly, dependencies are less likely to lead to critical vulnerabilities when jurisdictions maintain a high level of regulatory cooperation in the financial sector and their foreign policies are strongly

⁴⁸ Communication from the Commission to the European Parliament, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions: The European economic and financial system: fostering openness, strength and resilience, COM(2021) 32 final of 19 January 2021.

aligned. In that regard, it is to be noted that EU dependencies in the financial sector mainly relate to G7 partners that implement international standards and cooperate closely with the EU on regulatory and supervisory matters.

However, as the geopolitical climate points towards further fragmentation of the world economy, it is right to take stock of the provision of financial services in the EU by third-country entities and to assess whether this may create vulnerabilities in certain markets.

3.1.1 Type of dependencies

Some financial services related to international trade (such as borrowing in foreign currencies, international payments, and trading in international securities and derivatives) inherently rely on the exchange of financial services between international institutions and entail the development of a web of financial interconnections across the globe.

Third-country financial institutions can provide a broad range of services in the EU, subject to relevant authorisation regimes and regulatory requirements.

These services include services related to the clearing and settlement of financial transactions, as well as to secured financial messages. These services are prime examples of businesses activities that benefit from network effects and economies of scale, thus leading to the development of natural monopolies. In such cases, market leaders operating from outside the EU might provide EU businesses and institutions with critical services that they may not necessarily be able to source from EU operators on the same terms. The more critical the services and products, the greater the risks that a disruption of service by a third-country operator or divergences in financial regulations (or foreign policies) may negatively impair EU financial stability and open strategic autonomy. Another example of market concentration is the area of card payments, where the two prominent international card schemes hold two thirds of the EU card payments market (and nearly all intra-EU cross-border card payments), at a time when cards-based payments still account for about half of all payments processed in the EU.

3.1.2 *Measuring dependencies*

The analysis in this chapter aims to identify financial sectors where non-EU institutions play such a significant role that EU financial operators and the general economy rely on them for the provision of essential or difficult-to-substitute services or products, and to assess whether that reliance could pose vulnerabilities.

Third-country dependencies are multifaceted and challenging to measure, particularly in the case of peer-to-peer relationships. Firstly, the parties involved in a transaction are often simply two counterparties with opposite and matching needs (e.g. in the case of derivatives, foreign exchange and trading of securities), so neither is providing a service to the other. Secondly, the degree of dependence can be measured with different metrics depending on the activity or service involved, and some can be more appropriate than others. Thirdly, not all data are retrievable from public or private sources, if only because there may not be any systematic collection due to a lack of any supervisory interest, therefore not all dependencies can be measured. Cross-border services are the most difficult to identify and measure, because information on the cross-border origin of

income, assets and liabilities is not always available from companies' annual reports or from supervisory reporting⁴⁹.

The analysis in this chapter therefore relies on a simple measure of dependence obtained by calculating the EU's market share of financial services provided by third-country firms. This measure can be expressed in terms of notional or market value of assets, liabilities or income, depending on the type of service or product considered and on the channel used to provide a service (i.e. cross-border, by EU branches or by EU subsidiaries). Aggregate figures⁵⁰ are classified according to third countries of origin, by EU Member States where services are provided or branches and subsidiaries are established, and by services and products.

3.2 Card payments

The retail payments market segment is one area in which there is concentrated reliance on third-country providers due to the special role played by the international card schemes (ICS). Payment cards are the most widely used electronic payment instrument in the EU. There were almost more than 70 billion card payments in 2022, representing 52.54% of all non-cash transactions – well ahead of credit transfers (24.21%) and direct debits (19.16%)⁵¹. The retail payments market segment is one area in which there is concentrated reliance on third-country providers due to the special role played by the international card schemes (ICS). Moreover, according to the latest data available, in the first half of 2023, the ICS accounted for almost 67.5% of transactions with payment cards issued in the EU⁵². Several factors have contributed to the predominance of Visa and Mastercard⁵³. Firstly, customers have a clear preference for a means of payment that offers wide access to merchants worldwide. This leads card issuers, even those under national schemes, to ensure interconnectedness with the ICS, notably through co-badging, so that their clients have the widest possible cross-border access. Secondly, the ICS seem to have gained a comparative advantage because they quickly provided users with new payment opportunities and led the way in implementing started an early implementation of online and contactless payments. This type of innovation further increased their attractiveness and market shares, thereby creating additional incentives for new market entrants to opt for co-badging. Thirdly, national schemes could charge lower fees than international schemes until the introduction of caps on interchange fees in 2015, but the regulatory price caps have *de facto* removed their price advantage since then. However, national schemes were lagging significantly behind the ICS on payment cards issued in the EU even before 2015. Indeed, while starting with about the same number of serviced transactions in 2009, national schemes progressed by only 35% in the 7 years to 2016, while the ICS expanded by more than 150%.

The buoyant development of the ICS confirms the importance of network effects for payments. This also explains why there are only a few ICS. However, the lack of an EU ICS now raises some questions about potential vulnerabilities. This is especially true for the EU customer, because the role of a limited number of operators offering cross-border services in electronic payments and e-commerce might have negative consequences, including for the EU's open

⁴⁹ Some data and information could be present in the annual reports of individual banks, but retrieving this data would be excessively burdensome and would not ensure completeness.

⁵⁰ An analysis based on more granular data is beyond the scope of this chapter. In some cases, such analysis may be feasible (for instance, based on individual entity and transaction level data in the ORBIS and Refinitiv databases respectively).

⁵¹ In terms of value, credit transfers represented the 93% of all non-cash payments in the first half of 2023.

⁵² In value terms the ICS's share should be even higher because the average size of a cross-border transaction is typically larger than the average size of a national transaction.

⁵³ European Central Bank (ECB), [Card payments in Europe – Current landscape and future prospects – A Eurosystem perspective](#), April 2019.

strategic autonomy in payments. For instance, it has been estimated that ICS fees in the EU increased by EUR 1.46 billion from 2016 to January 2021 (all types of fees taken together) ⁵⁴.

3.2.1 Recent EU initiatives in the area of retail payments

To address the growing digitalisation of and demand for cashless payments, several initiatives have been launched in recent years that will widen the EU retail payment landscape.

In 2024, the EU approved the Instant Payments Regulation ⁵⁵, which will allow EU cross-border instant payments to take off. This is a service that was limited to domestic credit transfers. Banks and other payment providers will be required to offer this service continuously (round the clock and 7 days per week) and will not be permitted to charge fees higher than fees for standard credit transfers. It is expected that this solution will foster competition in the retail payment and payment cards market, potentially reducing the transaction costs for merchants and customers that are embedded in the prices of goods and services. This initiative could also allow payment service providers in the EU to extend their range of services to customers and merchants. A concrete example of intra-EU cross-border instant payment solutions, the European Payment Initiative (EPI)⁵⁶ has recently launched a digital wallet allowing the customers of participating banks to instantly transfer money from their bank accounts across several EU countries.

Along with the development of private digital money payment solutions, the EU has also, together with the ECB, been making progress on digital public money solutions and notably on the digital euro. In June 2023, the Commission submitted two proposals for regulations ⁵⁷ to lay the legal basis for the issuance, distribution and use of the digital euro, and the provision of services linked to it in EU Member States outside the EA.

The objective of the proposals is to ensure that, in a context of a growing number of cashless payments in physical and online shops, central bank money with the status of legal tender remains available to the general public – while at the same time offering a state-of-the-art and cost-efficient payment means, ensuring a high level of privacy in digital payments, maintaining financial stability and promoting accessibility and financial inclusion. According to the ECB, a digital euro would: (i) ensure that citizens can continue to trust the monetary anchor securing their digital payments; (ii) protect the open strategic autonomy of EU payments and its monetary sovereignty, providing a fall-back solution if needed in the case of service disruption; and (iii) improve the efficiency of the payment system and foster innovation in the private sector.

⁵⁴ See the study commissioned by Eurocommerce, CMSPI and Zephire, [Scheme fee study](#), 7 December 2020.

⁵⁵ Regulation (EU) 2024/886 of the European Parliament and of the Council of 13 March 2024 amending Regulations (EU) No 260/2012 and (EU) 2021/1230 and Directives 98/26/EC and (EU) 2015/2366 as regards instant credit transfers in euro, OJ L, 2024/886, 19.3.2024.

⁵⁶ The European payments initiative was launched by 16 banks and financial service companies to create a new digital wallet ([Wero](#)) and a unified account-to-account solution. The initiative aims to becoming a new standard in payments for European consumers and merchants for all types of retail transactions.

⁵⁷ Proposal for a regulation of the European Parliament and of the Council on the establishment of the digital euro, COM(2023) 369 final of 28 June 2023; and proposal for a regulation of the European Parliament and of the Council on the provision of digital euro services by payment services providers incorporated in Member States whose currency is not the euro and amending Regulation (EU) 2021/1230 of the European Parliament and the Council, COM(2023) 368 final of 28 June 2023.

3.3 Banking

The banking sector lies at the core of the EU financial system. Besides playing a key role in providing deposits and loans, it often acts as a gatekeeper (or main intermediary) for access to other financial services (e.g. asset management, securities trading, payments, insurance services, and services related to derivatives and capital markets).

Bank financing has declined but still represented about 60% of the total funding of euro area NFCs⁵⁸ in 2022 and probably a much larger share in the case of small and medium-sized enterprises (SMEs). These data chime with the share of market-based financing, which has fluctuated between 30% and 40% over the last 20 years⁵⁹. The share of bank lending is less significant in the US⁶⁰.

The banking sector is important for the financial stability and economic resilience of the EU. Moreover, banks remain fundamental in facilitating intra and extra-EU trade through the provision of payment, trade credit, derivatives hedging and foreign exchange services. In the second half of 2022, at least 97% of non-cash payment services in the EA were intermediated by banks⁶¹. EU banks also have sizeable holdings of, and provide market liquidity for, EU sovereign bonds (particularly those issued by home Member States⁶²). During the expansion of globalisation⁶³, the banking sector played a pivotal role in facilitating global trade and remittances, thanks in particular to the correspondent banking network and the establishment of subsidiaries and branches in third countries to support international trade, as well as foreign direct investment. The size and openness of the Single Market have led many third-country banking groups to establish subsidiaries and branches in EU Member States in order to support trade between the third countries' home businesses and the EU, and to diversify their business and take advantage of profit opportunities and synergies. In 2023, 461 third-country groups from 47 countries were operating in the EU/EEA. 2 of these were operating via intermediate parent undertakings⁶⁴ and 65 via a total of 105 credit institution branches⁶⁵.

The global financial crisis caused the network of correspondent banks to shrink. This decline has not affected the flow of international payments (the value of payments in USD increased by 40% in the same period), but it has increased the concentration of banks offering correspondent banking services⁶⁶.

This concentration has further increased the role of global banks that are present in multiple countries and that can provide financial services across several currencies. In this respect, US

⁵⁸ ECB, *Financial integration and structure in the euro area*, April 2022.

⁵⁹ According to the Commission's *Monitoring progress towards a Capital Markets Union: a toolkit of indicators – 2023 update*, SWD(2021) 544 of 16 August 2023, market-based funding was around 50%, but these data do not include (among others) trade credit, non-bank credit and non-listed equities among the liabilities.

⁶⁰ ECB, *Economic Bulletin*, Issue 5/2016, 1 May 2016.

⁶¹ For details, see https://www.ecb.europa.eu/press/pdf/pis/ecb.pis231109_annex~2f3134380.en.pdf.

⁶² For example, in June 2023, banks in DE, EL, ES, FR and IT had more than 50% of the EU banks' holdings of the sovereign bonds issued by their respective home countries (total gross carrying amount of non-derivative financial assets). For further details, see [EBA 2023 transparency exercise](#).

⁶³ IMF, *Charting globalization's turn to slowbalization after global financial crisis*, IMF blog, 8 February 2023.

⁶⁴ Article 21b of Directive 2013/36/EU (the Capital Requirements Directive – CRD) requires banks and investment firms in the EU that are subsidiaries of third-country groups to set up a single EU intermediate parent undertaking (IPU). This requirement applies if the third-country group has two or more institutions (banks and investment firms) established in the EU with a combined total asset value, within the EU, of at least EUR 40 billion, including the assets of the third-country group's branches in the EU.

⁶⁵ Updated list of all third-country groups (TCGs) with intermediate EU parent undertakings IPU(s), where applicable, and the list of all third-country branches (TCBs) operating in the EU and EEA. See EBA, [List of third country groups with IPUs and third country branches](#), 4 October 2023.

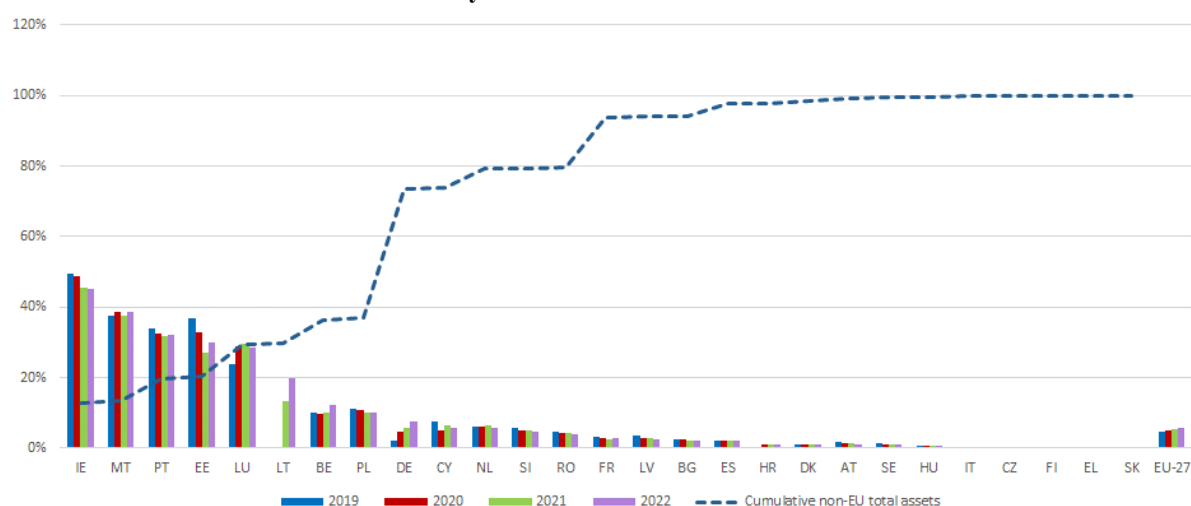
⁶⁶ See Financial Stability Board, *FSB correspondent banking data report – Update*, 16 November 2018.

banks and, to a lesser extent, EA and UK banks have had a competitive advantage in correspondent banking, thanks to the prominence of their currencies and economies in financial markets and global trade. Synergies with correspondent banking and trade finance businesses have helped those banks to build cross-banking relationships and develop a global leadership position in other areas of the banking sector and the broader financial sector.

Similarly, Chinese banks may play a more important role in the EU and international financial system going forward thanks to the increased importance of renminbi for regional⁶⁷ and international trade, and China's increased role on the global economic and political stage.

The analysis shows that in 2022, 202 third-country banks⁶⁸ with total assets of EUR 2.3 trillion were established in the EU (out of a total of more than 3 000 banks established in the EU⁶⁹ with total assets of EUR 39.81 trillion)⁷⁰. Their corresponding market share of 5.8% does not suggest a significant reliance on third-country banks at the EU level (see Chart 3.1)⁷¹.

Chart 3.1: Market share of third-country banks in EU Member States



Sources: ORBIS; and DG FISMA calculations.

Note: market share is measured by total assets. In the case of EU banking groups, total assets of the groups (i.e. on a consolidated basis) are allocated to the Member States of the parent companies. Total assets of subsidiaries in the home Member States of their parent companies are not considered. Total assets of subsidiaries in other Member States are considered on an individual basis.

This could indicate that, while the EU banking market is open, the credit supply by EU banks is sufficient to meet the EU demand (taking into consideration lending standards, as well as operational and regulatory constraints) and that EU domestic banks have the capacity and sufficient competitiveness to finance the domestic economy at large. Another consideration is that, particularly in the case of greenfield investments, third-country financial institutions

⁶⁷ See Perez-Saiz, H. and Zhang, L., *Renminbi usage in cross-border payments: regional patterns and the role of swaps lines and offshore clearing banks*, IMF working paper WP/23/77, 31 March 2023.

⁶⁸ Based on ORBIS data. Third-country banks include EU subsidiaries of third-country banking groups as well as EU banks with ultimate beneficial owners from a third country.

⁶⁹ The subset is narrower than the 243 legal entities belonging to third-country groups according to the EBA's June 2021 data and narrower than the total number of approximately 4 400 credit institutions in the EBA's European Centralised Infrastructure for Supervisory Data (EUCLID). Possible reasons included the fact that the extraction from ORBIS data filtered in only financial institutions with known ultimate beneficiary owners.

⁷⁰ According to ECB [data](#), the total assets of EA banks at the end of 2022 amounted to EUR 37.49 trillion (consolidated at Member State level).

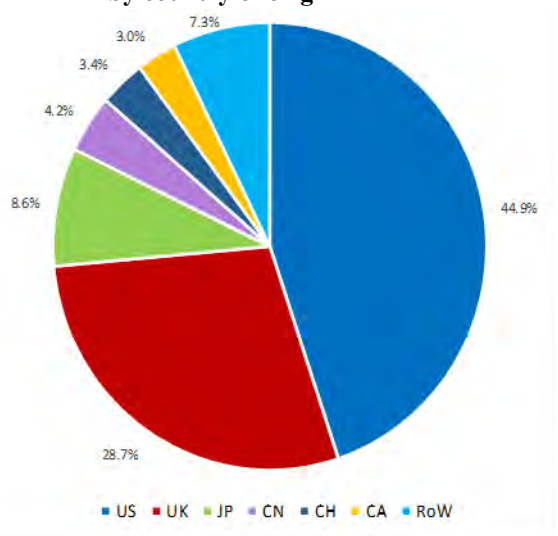
⁷¹ One could argue that the actual share of assets of third-country banks is higher than observed, because some assets of EU banks are invested outside the EU, while third-country banks' assets booked in the EU are focused on serving the local market. In addition, the assets of third-country banks operating in the EU via branches (and therefore consolidating their accounts in the third country) are not captured by these data.

generally operate in a few Member States and business lines, often serving medium-to-large customers with international business and trading with other financial institutions, or providing more specialised services and products⁷².

Overall dependence is low at EU level, but dependence on third-country banks is higher in some Member States and in specific services and products.

IE is the EU Member State where third-country financial institutions have the highest share of the banking market in terms of total assets (45.24% in 2022), while EE, LT, LU, MT, and PT have values in the 20%-40% range. Non-EU banks operating in IE and LU often act as EU hubs for their banking groups and global operations. This explains why the share of third-country banks established in these Member States have a larger share of the EU total interbank deposits compared to their share of the EU total assets. This is also the case for BE and MT.

Chart 3.2: Third-country banks' EU market share by country of origin



Sources: ORBIS; and DG FISMA calculations.
 Note: market share based on total assets. Balance sheet data of banks established in the EU, consolidated at the highest level in the EU. Data as of end 2022.

In the last 4 years, third-country banks' EU market share has increased overall, notably because of Brexit. However, this trend has been more pronounced in some Member States like DE, FR and LU, where almost 60% of the total assets of third-country banks are located⁷³.

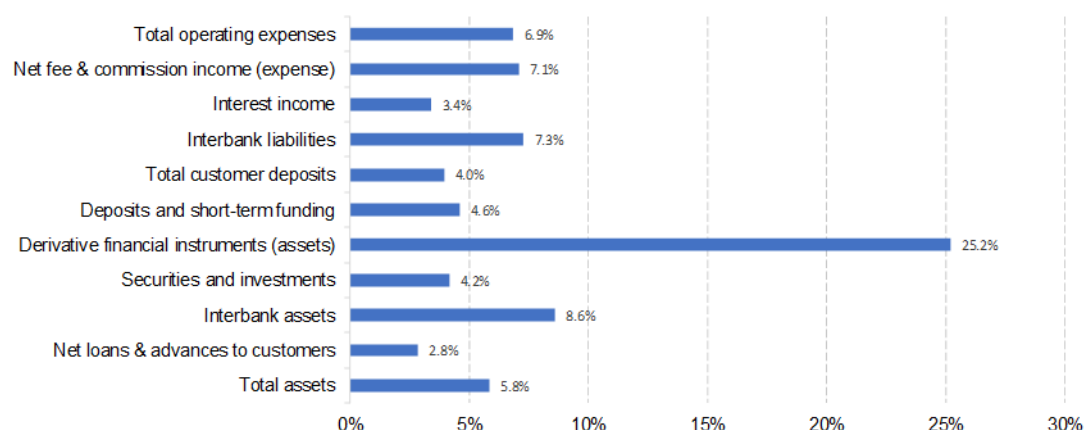
When looking at the geographical composition of third-country financial institutions, more than 80% of third-country banks' total assets⁷⁴ in 2022 were held by banks from the US (44.9%), the UK (28.7%) and Japan (8.6%). Chinese banks (4.2%) were the only large third-country banks operating in the EU (by total assets) from non-G7 countries and were ahead of Swiss (3.4%) and Canadian (3.0%) banks.

Analysing the market share by service and product sheds light on the main business models of third-country banks operating in the EU, as well as on possible areas of EU dependence.

⁷² Third-country financial institutions have highly concentrated positions in credit institutions and other financial corporations. They represent 60% of total exposures and 72% of total liabilities. Households only account for 7% of exposures and 11% of total liabilities. European Banking Authority, [Analysis of the EU dependence on non-EU banks and of EU banks' dependence on funding in foreign currency](#), EBA/REP/2022/22.

⁷³ In the run-up to and immediate aftermath of the Brexit, some of the largest third-country banks moved around EUR 1 trillion away from the UK to the EU. See Hamre, E. and Wright, W., [Brexit & the City: the impact so far. An updated analysis of how the banking & finance industry has responded to Brexit and who is moving what to where](#), New Financial, April 2021.

⁷⁴ EU subsidiaries of third-country banks or with third-country ultimate beneficiary owner.

Chart 3.3: Third-country banks' EU market share by main balance sheet and income statement items

Sources: ORBIS; and DG FISMA calculations.

Note: data as at the end of 2022. Balance sheet data of banks incorporated in the same Member State as the controlling company are included in the consolidated balance sheet of that controlling entity.

Third-country banks' market share in terms of derivatives assets (25%) is highly significant and much larger than the overall size of the share of third-country banks' total assets. Conversely, loans represent only a smaller portion of their assets. This is also reflected on the income side, as the portion of EU total net fees and commission income earned by third-country banks is larger than the corresponding portion of interest income. Overall, these data suggest that trading, investment and wholesale banking are the main business models of those banks ⁷⁵.

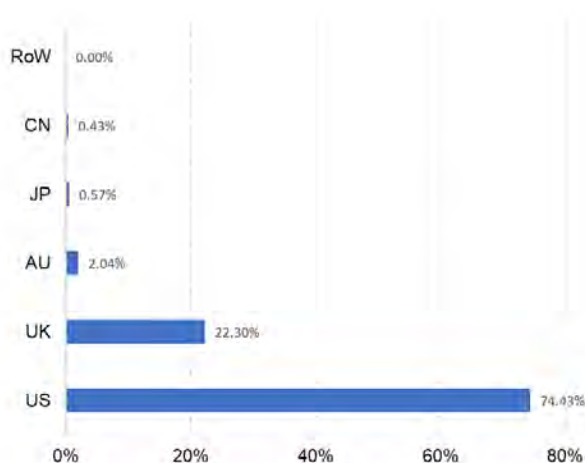
The geographical distribution of third-country providers shows some noticeable sectoral patterns. The derivatives business is almost entirely conducted by US (74%) and UK banks (22%) ⁷⁶. To a lesser extent, these two third countries also lead on securities (31% and 40% respectively) and interbank assets (33% and 32% respectively). JP and CN banks are more focused on traditional banking, which is implicit in their larger share of third-country banks' loans (15% and 8% respectively) and net interest income (16% and 7%) compared with their weight in terms of total assets (9% and 4%). JP banks also have an above-average share of interbank assets (20%).

In terms of net fees and commissions, it is worth noting the larger weight of CH banks (8%), which may imply a higher focus on fee-generating activities.

⁷⁵ See European Banking Authority (2022), [Analysis of the EU dependence on non-EU banks and of EU banks' dependence on funding in foreign currency](#), EBA/REP/2022/22

⁷⁶ While this is not necessarily accurate, we use the book value of derivatives as a proxy for their notional values and therefore for the business involved.

Chart 3.4: Third-country banks' EU market share of derivatives assets by country of origin of third-country banks



Sources: ORBIS; and DG FISMA calculations.
 Note: balance sheet data of banks established in the EU, consolidated at the highest level in the EU. Data as at the end of 2022.

The analysis conducted by the EBA in 2022 and based on supervisory data shed light on some services where third-country banks have important market shares. The EBA noted that '[...] by activity, non-EU entities account for a significant market share in commodities (63.5%), corporate finance (51.5%), central administrative services for collective investment (47.7%), custody (35.1%) and foreign exchange (32.4%)'.

Moreover, the EBA analysis also highlighted the importance of foreign exchange funding for EU banks, which accounted for more than 25% of overall EU bank funding, of which 20% was in USD. At the same time, the EU banks' liquidity coverage ratio (LCR) in foreign significant currencies showed that high-quality liquid assets were on average insufficient to cover potential short-term outflows in those same currencies

(including the USD), so EU banks were vulnerable to stress and disruption in foreign-currency-denominated capital markets. If EU banks were to lose access to market funding in those currencies, they might need to resort to EU central banks' extraordinary facilities or might default on those liabilities.

3.3.1 Cross-border banking

The Bank for International Settlements' (BIS) consolidated banking statistics (CBS) and locational banking statistics (LBS)⁷⁷ on banks' foreign claims provide a comprehensive overview of cross-border banking between the EU and the rest of the world. The datasets cover the cross-border exposure of internationally active banks from a large set of reporting countries, including 12 from the EU⁷⁸ ('the EU-12'), to more than 200 countries, although without the same degree of detail as those provided by ORBIS in terms of asset categories, and without any information on income⁷⁹.

Overall, when one combines CBS data with Eurostat data on private⁸⁰ and public⁸¹ sector debt statistics at the end of 2022, third-country banks held 4.13% of the EU's private sector liabilities and 10.1% of the EU's general government total gross debt (on a guarantor basis). This shows

⁷⁷ The CBS data are organised according to the concept of banks' nationality and on a consolidated basis. The LBS data are organised according to the concept of banks' residence and on an unconsolidated basis. In practice, this means, for example, that an EU subsidiary of a US bank would be treated as a US bank in the CBS dataset but as an EU bank in the LBS dataset.

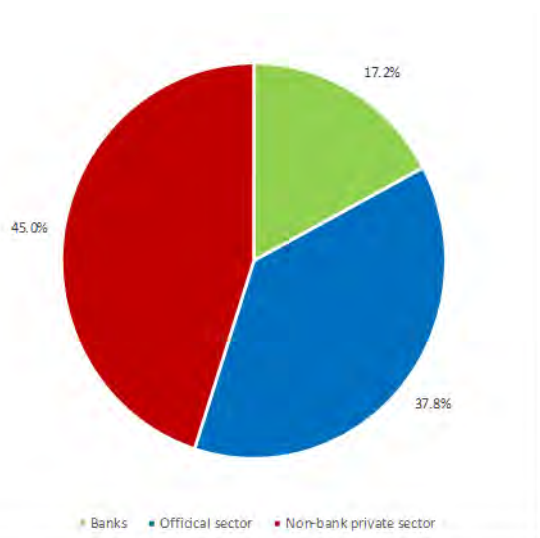
⁷⁸ The EU reporting countries are BE, DE, IE, EL, ES, FR, IT, NL, AT, PT, FI and SE. Combined, they accounted for 86% of total EU GDP and 92% of EU financial assets in 2022 (DG FISMA calculations based on World Bank Group 2022 data and EBA 2022 transparency exercise).

⁷⁹ In terms of scope, the BIS dataset is more comprehensive than ORBIS as because it also covers third-country branches and provides data classified by the main sectors of counterparties (banks, the official sector and the non-bank private sector). However, the dataset contains limited information on the asset categories and no information on income generated by cross-border banking.

⁸⁰ Eurostat, Financial balance sheets – annual data, [nasa_10_f_bs](#).

⁸¹ Eurostat, Government deficit/surplus, debt and associated data, [gov_10dd_edpt1](#).

Chart 3.5: Third-country banks' claims by sector of EU counterparties



Source: BIS consolidated bank statistics (CBS); and DG FISMA calculations.

Note: Q4 2022 data. Data refer to claims and liabilities of banks that are active internationally and have an origin in one of the BIS CBS reporting countries. The 12 EU CBS reporting countries are BE, DE, IE, EL, ES, FR, IT, NL, AT, PT, FI and SE.

that foreign banks play a relatively marginal role in the financing of the EU's economy and its public sector.

In terms of allocation, more than 60% of third-country banks' claims concerned the EU private sector, 17.2% of which were towards EU banks. Interestingly, around 70% of the overall claims (on immediate counterparty basis) was denominated in non-EU currencies.

Derivatives are the area where third-country banks have the largest share of claims. This reflects the international character of this market. In this case, third-country claims vis-à-vis EU-12 counterparties (across all economic sectors) amounted to 42.5% of all EU-12 derivatives liabilities, with Greece (8.7%) and Portugal (69.8%) at the two ends of the spectrum.

UK and US counterparts held the largest share of derivatives claims (14.2% and 8.2% respectively). However, the location of the counterparties is rather diversified, with the share of counterparties located in the rest of the world (RoW) standing at 12.4%.

By way of comparison, it is noteworthy that EU-12 banks had a higher share of all derivatives claims towards counterparts in the UK (35.1%), CH (22.8%) and the US (18.3%).

Focusing on interbank exposures, EU banks (as a whole) were net borrowers at the end of 2022⁸². On average, third-country banks claims were 16.8% of the EU-12 banks' overall interbank funding (mostly from UK banks (7.8%)). This exposure does not raise concerns in general. At Member State level, banks in BE (41.5%), NL (41.4%), IE (36.7%), FR (35.8%) and FI (31.6%) were reliant on funding from third-country banks for a significant part of their overall needs. These higher figures for some Member States may partly result from significant funding in foreign currencies that amounted to 19% of the EU banks' overall funding in H1 2021⁸³.

To put this in perspective, at the end of 2022, BIS data indicate that EU banks were responsible for 42.4% of the UK banks' interbank funding, and for 22.3%, 11.6% and 8.1% of the interbank funding of CA, US and CH banks respectively.

⁸² The calculation of the interbank exposure between EU and third-country banks in the BIS CBS database is done on the basis of consolidated data. This implies that foreign subsidiaries and branches are allocated to the home countries. EU banks' interbank liabilities are also approximated by the third-country banks' claims on EU banks.

⁸³ For further details, see European Banking Authority, *Analysis of the EU dependence on non-EU banks and of EU banks' dependence on funding in foreign currency*, EBA/REP/2022/22. According to this report, funding in foreign currencies was about 60% for banks in FI, about 30% in BE and FR, and 25% for banks in IE and NL.

It is to be noted that, while BIS data include bank claims on central banks of third countries, the CBS reporting population is limited to commercial banks (i.e. central banks' claims on commercial banks and other central banks are not reported).

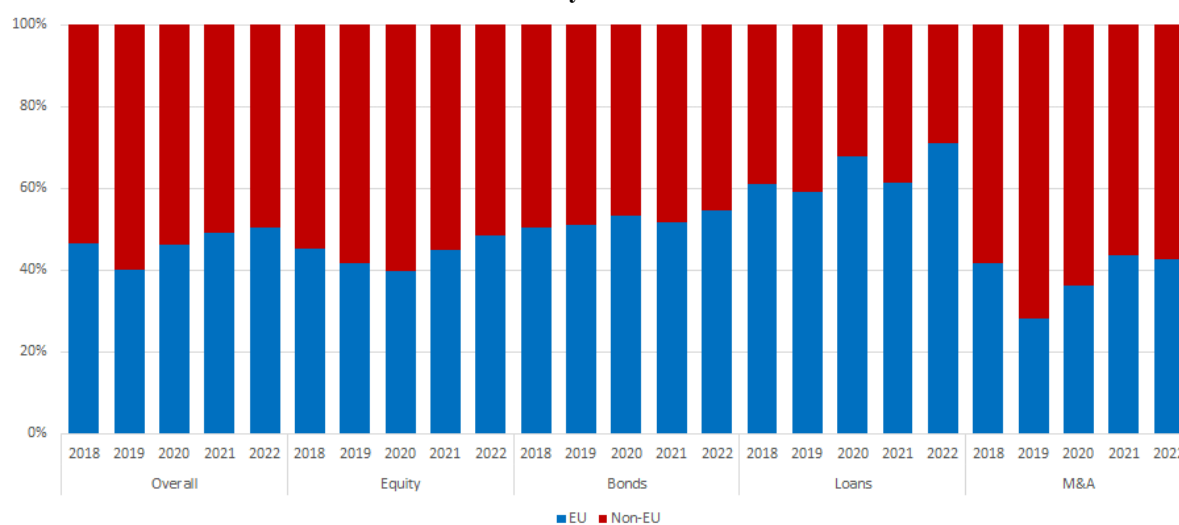
EU banks were net borrowers in the cross-border interbank market and the share of third-country banks' interbank claims on EU banks were at the same time smaller than the corresponding EU banks' share. These two facts may either suggest a comparatively greater reliance of EU banks on (both EU and extra-EU) interbank funding; or reflect a significant share of EU banks' claims on third-country central banks. The large share of EU banks' claims on UK banks could also be related to the cash collateral posted for the purposes of derivatives settlement.

Overall, the BIS data do not seem to suggest any significant EU dependence on third countries but rather a fair degree of interconnectedness between the EU's banking sector and those of other G7 countries and Switzerland.

3.3.2 Investment banking

The data⁸⁴ retrieved from Refinitiv⁸⁵ based on fees for 2018-2022 provide a split of investment banking services to EU issuers by country of financial service providers and by production categories⁸⁶.

Chart 3.6: Investment banks' EU market shares by business line



Sources: Refinitiv; and DG FISMA calculations.

Note: market share based on proceeds. Data as at the end of 2022. Data based on fees collected on investment banking transactions concerning EU issuers.

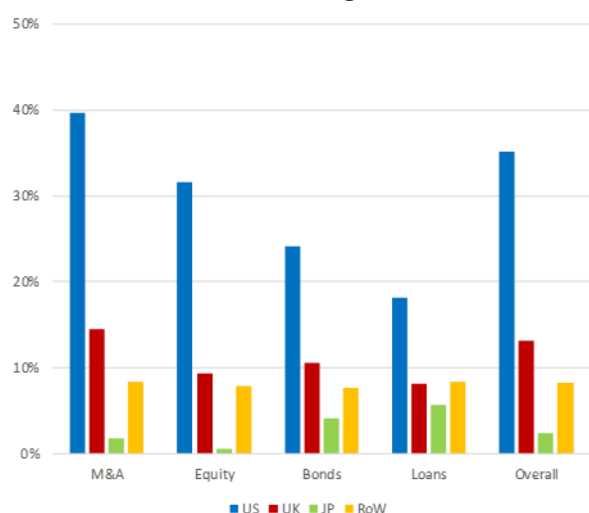
Except for syndicated loans (where EU banks have a clear lead) and bond issuances (where EU and third-country banks have an equal share), third-country banks lead in equity issuances and, more markedly, in M&A services.

Chart 3.6 shows a generally increasing market share of EU financial institutions since 2020. Overall, roughly half of EU investment banking revenues are booked by third-country banks.

⁸⁴ The data does not include revenues from capital markets trading activities.

⁸⁵ Refinitiv. DG FISMA calculations are based on the Refinitiv deal-screening app.

⁸⁶ M&A, and other services in the context of loans, bonds and equities issuance.

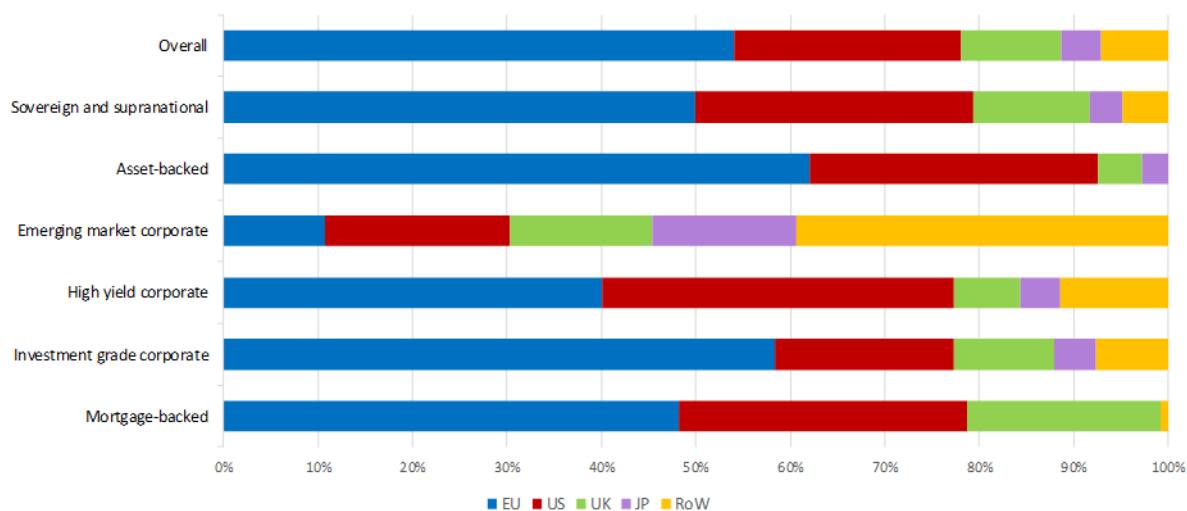
Chart 3.7: Investment banking EU market share

Sources: Refinitiv; and DG FISMA calculations.

Note: data as at the end of 2022. Market share based on fees collected on investment banking transactions concerning EU issuers.

In this case also, the financial institutions of third countries such as the US and, to a lesser extent, the UK dominate the market across all areas, distantly followed by JP ones, based on 2022 data. The data provide a breakdown of bond issuances by type of issuer and issuance.

As regards bond issuances, with the exception of asset-backed and investment-grade corporate bond issuances, third-country banks had a larger market share of EU bond issuances, including in the case of sovereign and supranational bond issuances.

Chart 3.8: EU investment banking bond market shares by bond type

Sources: Refinitiv; and DG FISMA calculations.

Note: data as at the end of 2022. Market share based on fees collected on investment banking transactions concerning EU issuers.

The analysis of third-country markets in 2022 shows that the overall market share of EU banks in the US (7.49%) was much smaller than the respective market share of US counterparties in the EU (35.15%) but larger as regards the UK (23.75% vs 13.15%), CH (29.53% vs 3.13%) and JP (5.3% vs 2.44%). The share of EU banks in the domestic market (43.87%) is also much higher than the share of UK (20.66%) and CH (24.66%) banks in their respective markets. This indicates the global leading role of US investment banks, followed by EU ones. The data are not limited to domestic markets⁸⁷. The analysis therefore not only points to a certain dependence on third-country investment banks in the EU but also reveals the global nature and integration of capital markets, which foreign investors use to diversify their holdings by location and currency. Moreover, when placing securities in a third country, dependency on local banks may be both

⁸⁷ Data refer to issuances from EU entities without any restrictions on the location of the placement of those financial instruments. The same applies to the analysis of the other markets.

unavoidable (e.g. in the case of securities available to the retail market) and convenient (given their market knowledge and customer basis).

Overall, non-EU banks play a limited role in the overall EU banking market but play a pivotal role in investment banking and derivatives products, which are key for the functioning of capital markets and risk transfer and, ultimately, for promoting growth and trade. In view of the role played by EU banks in global capital markets and the low impact of investment banking business (advisory and placement of securities) on banks' capital requirements, it can be concluded that EU banks may have the capacity to mitigate the impact of the withdrawal of third-country banks from the EU market, but may not have the same capital-raising capacity from third-country investors. The gap on the derivatives front might be more difficult to fill, given the possible operational and balance sheet constraints of EU banks. Under an exit or scaling-down scenario of third-country banks, the EU demand for those services may no longer be met and the EU economy may be negatively impacted.

3.4 Insurance and reinsurance

The analysis of the primary insurance sector is based on 446 insurance companies operating in the EU in 2022, using data extracted from ORBIS⁸⁸. After adjustments for situations where financial statements of some subsidiaries are also included in the consolidated statements of their parent companies, our dataset covers EUR 1.45 trillion in gross written premiums (GWPs) in 2022⁸⁹. This amounts to 99% of GWPs in 2022 (EUR 1.47 trillion) according to EIOPA statistics⁹⁰.

The outcome of the analysis is in line with the generally accepted premise that the primary insurance sector in EU is dominated by domestic entities. Insurers belonging to third-country groups ('third-country insurers') hold a negligible share (1.96%) of all insurers' assets in EU. A similar conclusion can be drawn if one uses GWPs as the measure of dependency, because third-country insurers collect only 2.07% of all GWPs in the EU.

The market share of third-country insurers has been very stable over the last 5 years. The non-EU share of GWPs written in the EU increased slightly from 1.92% in 2018 to 2.07% in 2022.

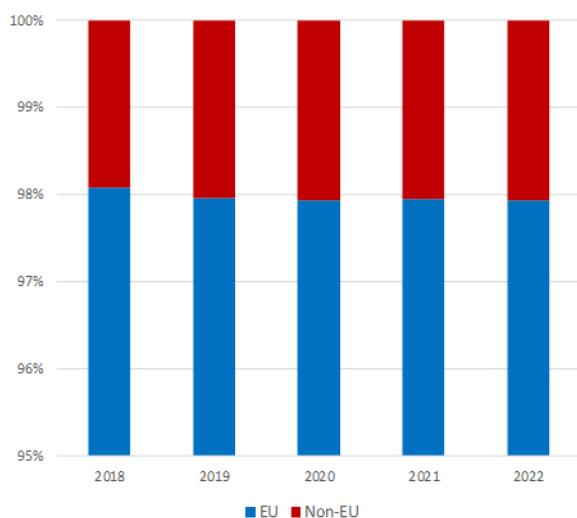
47% of the third-country GWPs for primary insurance in EU in 2022 were collected by CH insurers, 12% by UK insurers, 12% by CN insurers (including Hong Kong), 9% by US insurers, 8% by Australian (AU) insurers and 8% by Bermudan (BM) insurers.

⁸⁸ The analysis considers only insurers whose ownership structure is known. The final dataset contains 396 insurers, which together represent 99% of the assets of the full sample. Thousands of insurers are operating in the EU, but the insurers not represented in the ORBIS database are of low significance or accounted for in consolidated statements of their parent companies. The sample limitations based on ORBIS do not have a significant effect on aggregated figures but may distort findings at Member State level, especially for smaller economies.

⁸⁹ The latest available data in ORBIS for some insurers are for earlier years but the data are relatively static (as shown in our time series analysis).

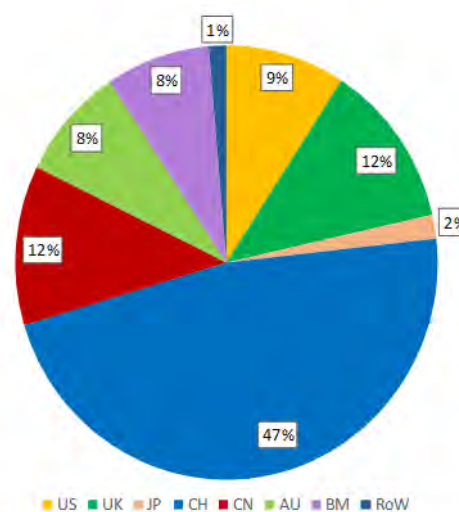
⁹⁰ EIOPA, [Insurance statistics](#).

Chart 3.9: Gross written premiums (GWPs) in the EU



Sources: ORBIS; and DG FISMA calculations.
Note: data as at the end of 2022. Balance sheet data at highest level of consolidation in the EU.

Chart 3.10: Third-country insurers' EU market share by country of origin

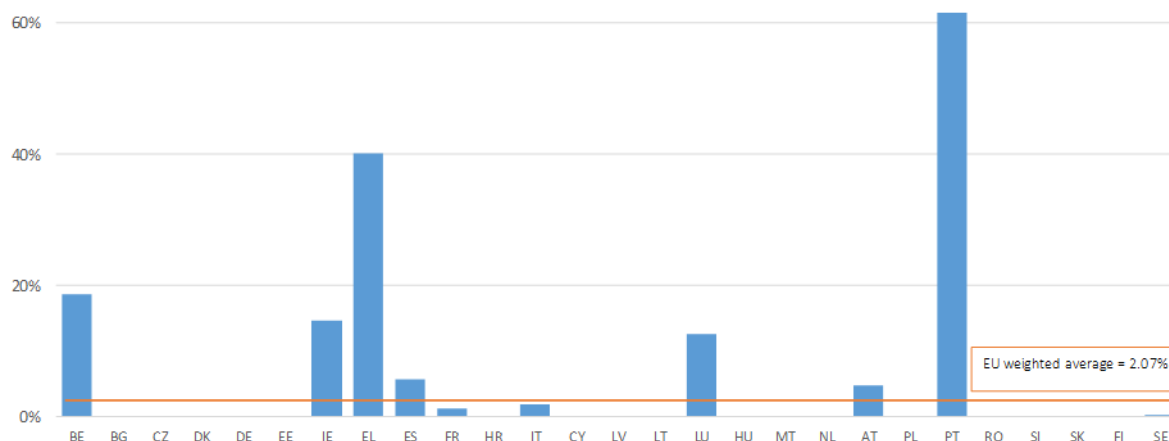


Sources: ORBIS; and DG FISMA calculations.
Note: data as at the end of 2022. Balance sheet data at highest level of consolidation in the EU.

There were also minor differences between product categories but an analysis of the EU market share of third-country insurers in terms of GWPs indicates that third-country insurers in the EU were slightly more specialised in non-life insurance products (2.46%) than in life insurance products (1.83%). Two further points are worth noting. Firstly, life insurance GWPs collected by third-country insurers in EU were dominated by CH entities to an even greater extent than general insurance premiums (63%). Secondly, CN insurers wrote a larger portion of premiums for non-life products (21%, compared with only 4% for life insurance and 12% overall). Similarly, US insurers wrote 19% of third-country GWPs for non-life products (but only 1% in the life insurance sector and 9% overall).

There were significant differences between Member States. All the GWPs written in 15 out of 25 Member States⁹¹ ultimately ended up with EU companies, but third-country insurers did write a relatively large proportion of premiums in some other Member States. The largest share of GWPs written by third-country insurers was in PT (62%), because the largest Portuguese insurer was a subsidiary of a Chinese parent company. EL also had a high third-country insurer share (40%), because the market leader was a subsidiary of a UK buy-out fund. Three other Member States had a third-country insurer share larger than 10%: BE (19%), IE (15%) and LU (13%).

⁹¹ The sample does not include any insurance groups or stand-alone insurers from EE and LV.

Chart 3.11: Market share of third-country insurers in EU Member States

Sources: ORBIS; and DG FISMA calculations.

Note: data as at the end of 2022. Balance sheet data of insurance subsidiaries incorporated in the same Member State as the parent are included in the parent's consolidated balance sheet. EU average weighted by GWPs.

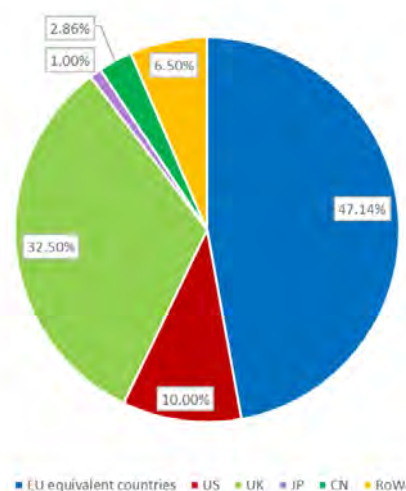
Another aspect to consider is concentration. Within the EU as a whole, the top five insurers' share of GWPs in 2022 was 34.32%, and those top five insurers were all EU insurers (3 DE, 1 FR and 1 IT). In line with the previous paragraph, the biggest risks were in PT, where the top 5 insurers held 100% of the market and 62% was held by a third-country financial institution (i.e. one controlled by a third-country entity); and in EL, where the top five held 92% of the market and 40% was held by a third-country controlled insurer. Third-country insurers were present in the top five for only three other Member States, but their market shares were relatively small: BE (8.14%), IE (13.79 %) and LU (8.92%).

Member States where the ORBIS data indicate that the top five insurers dominated the whole market were understandably some of the smaller economies: CY, LT, MT, PL, RO, SI and FI. The lowest concentration was in FR, where the top five insurers had a 49% market share. The shares of the top five in other large economies – DE, IT, ES – were 76%, 83% and 72% respectively. These data are consolidated, however, so the top five's market share may be overstated in the Member States where the insurance group parents are established.

Overall, the data clearly show that there is no significant reliance on third-country operators in the insurance sector; and that the high market share of third-country operators in some Member States is largely attributable to the shareholding structure of some of the biggest insurers rather than to their ownership by third-country insurance groups.

In the reinsurance sector, the level of EU dependence on third countries was very different. EIOPA supervisory data for 2021 indicate that 35% of reinsurance business in the EU was conducted by reinsurers from third countries or reinsurers belonging to third-country groups (collectively 'third-country reinsurers'). Almost half of those third-country reinsurers operate in third countries that have been granted EU equivalence for reinsurance under Solvency II (Switzerland and Bermuda – both prominent global reinsurance hubs). Behind those third countries that have an equivalence regime in place, the biggest third-country share of the EU reinsurance market was held by the UK (32.5%) and the US (10%), which do not have an equivalence regime in place.

Chart 3.12: Reinsurance in EU provided by non-EU reinsurers



Sources: EIOPA; and DG FISMA calculations.
Note: EU-equivalent countries are Switzerland and Bermuda.

Overall, the EU's reliance on third countries for reinsurance is significant. As regards implications for financial stability, two points are worth considering. Firstly, the risks ceded by EU insurers are not necessarily underwritten in the EU, given the global reach of some of EU insurers. Secondly, the transfer of risk outside the EU helps EU insurers to diversify their risks away from the EU and to mitigate the systemic risk related to insured losses that arise within the EU.

The EU's insurance sector is largely dominated by domestic insurers, so the provision of reinsurance by third-country operators is generally beneficial for financial stability. This is because it allows greater risk diversification, provided that risks are

ceded to operators that have sound capital positions and risk management, and that are subject to high-standard supervisory and regulatory frameworks. Potential vulnerabilities would only arise if third-country reinsurers were located in high-risk jurisdictions, and if adverse geopolitical developments could raise doubts regarding the future availability of coverage or the settlement of reinsurance claims. This is not the case at present and the risk currently seems extremely remote.

3.5 Equity and bond markets

According to Statista data ⁹², nearly every EU Member State had a stock exchange in June 2023, but only five of these stock exchanges were considered major and had a market capitalisation over USD 1 trillion. Only two of these were based in the EU and not owned by a third-country group. However, the market leader was the EU-based Euronext, with a market capitalisation of USD 6.65 trillion. Euronext was followed by the UK's London Stock Exchange (USD 3.18 trillion), Germany's Deutsche Börse, (USD 2.16 trillion), Switzerland's SIX Swiss Exchange (USD 1.96 trillion) and Nasdaq's Nordic and Baltic Exchanges (USD 1.91 trillion), itself a subsidiary of the US-based Nasdaq, Inc. For comparison, Statista ⁹³ data for September 2023 indicate that the largest stock exchange in the world was the New York Stock Exchange (NYSE), with a market capitalisation of listed companies of USD 25.24 trillion. Worldwide, Euronext is the fourth largest stock exchange and the London Stock Exchange ranks ninth.

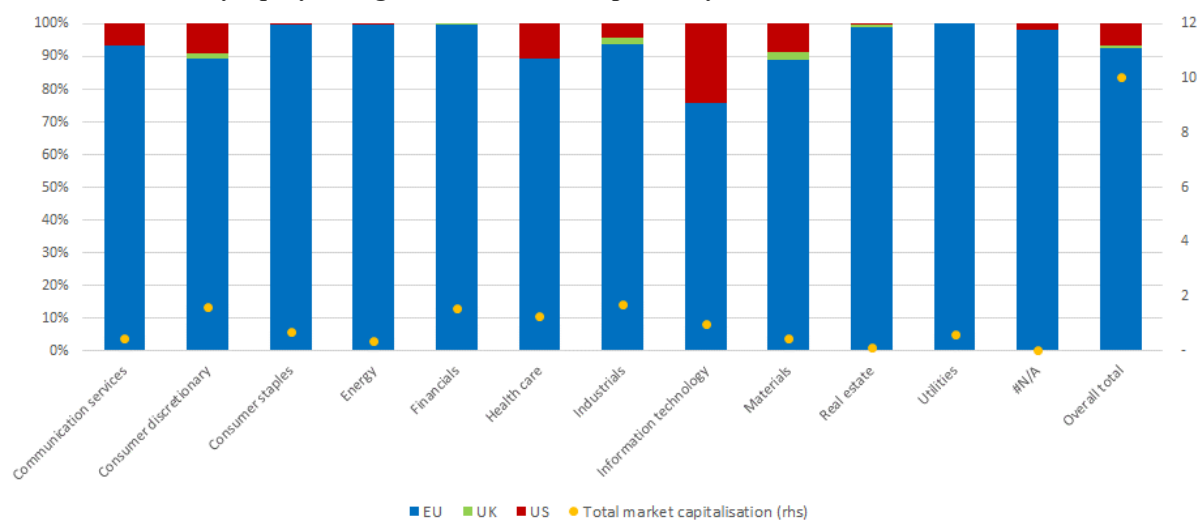
The dependency of EU equity markets on third countries was analysed by considering the primary listing locations of EU issuers, using market capitalisation as the measure. Results show that only 7.47% of EU companies are primarily listed on a foreign stock exchange, and that the US-based venues (6.67%) outweighed UK-based venues (0.81%). No EU-based company was primarily listed elsewhere than the EU, the US or the UK.

⁹² Statista, [Largest stock exchanges in Europe as of June 2023, by domestic market capitalization](#)

⁹³ Statista, [Largest stock exchange operators worldwide as of December 2023, by market capitalization of listed companies.](#)

In many sectors, EU stock exchanges were the primary equity listing location for more than 99% of EU companies⁹⁴ in the following sectors: consumer staples, energy, financials, real estate and utilities. Their share was between 89% and 99% for communication services, consumer discretionary, healthcare, industrial (the largest sector in terms of EU market capitalisation at EUR 1.73 trillion) and materials. The largest share (by market capitalisation) of EU companies listed primarily outside the EU was in the information technology sector (24% of them were primarily listed in the US). However, in terms of number and of capital raised through initial public offerings (IPOs) by EU information and technology companies, foreign markets were much less important (2.4% and 1.5% respectively).

Chart 3.13: Primary equity listing location of EU companies by sector



Sources: Bloomberg Finance L.P.; and DG FISMA calculations.

Note: market capitalisation (rhs) in EUR trillions.

More generally, the overwhelming majority of IPOs completed by EU issuers in 2021-2023⁹⁵ took place in the EU. Indeed, 95% of EU issuers (accounting for 90% of the total capital raised via initial offerings) chose EU markets as their primary listing location. Almost 3% of EU companies' IPOs took place in US markets (6.4% of the total capital raised). At the sectoral level, healthcare was the most reliant on third-country exchanges (notably US ones), which accounted for 14% of all EU healthcare IPOs (32% in terms of capital raised). 5% of EU consumer companies, 1% of EU industrial companies (4% if one also considers EEA exchanges) and 0.8% of EU technology, media and telecommunication companies (corresponding to 15.4%, 0.7% and 0.1% of the total capital raised by those sectors respectively) also chose third-country exchanges of their IPOs. However, it is to be noted that those figures might underestimate reliance on non-EU markets, because they do not take account of IPOs and capital raised by the subsidiaries of EU parent companies in third countries.

Overall, the analysis in this chapter suggests that EU issuers prefer EU capital markets. The relative importance of the US markets for some sectors might remain a challenge for the competitiveness of EU capital markets, but the decision to list on a third-country exchange seems

⁹⁴ Share in terms of market capitalisation.

⁹⁵ Commission calculation based on S&P Capital IQ data.

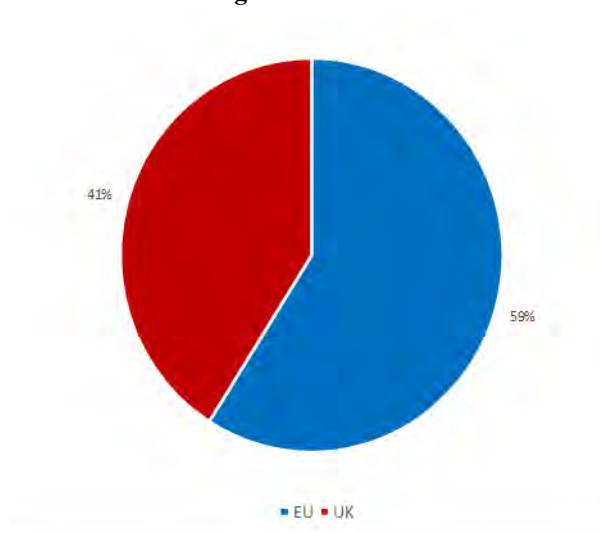
to reflect specific business needs or more structural global operations and market considerations, as in the healthcare sector⁹⁶.

The analysis of the bond market in this chapter is based on International Capital Market Association (ICMA) data from 2022⁹⁷. It looks at the share of trading volumes (in nominal terms) in sovereign bonds issued by EU Member States and in corporate bonds denominated in EUR, and therefore includes EUR bonds issued by non-EU companies. The underlying data cover an estimated 80% of total bond trading and only refer to EU and UK trading volumes.

59% of EU sovereign bonds were traded in the EU, but the volume traded in the UK (41%) remained significant. 55% of EUR-denominated corporate bonds were traded in the EU, and the difference with the UK share (45%) was even smaller.

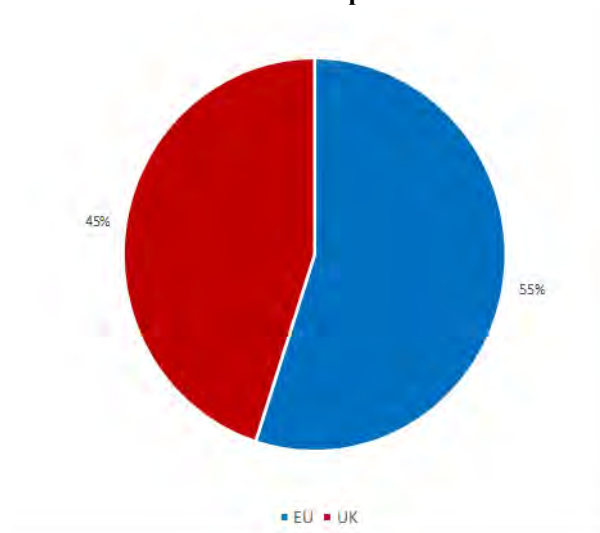
Most trading (in notional value terms) in both EU sovereign (53.1%) and EUR corporate (51%) bonds occurs on systematic internalisers and this share increases with the size of the trades. The rest is mainly traded on dealer-to-customer trading venues (28% of sovereign bonds and 49% of corporate bonds).

Chart 3.14: Share of traded volume of EU sovereign bonds



Source: ICMA (2023), European secondary bond market data H2 2022.

Chart 3.15: Share of traded volume of EUR-denominated corporate bonds



Source: ICMA (2023), European secondary bond market data H2 2022.

The data indicate that UK markets play a significant role in trading and therefore in providing liquidity to EU and EUR-denominated bonds. However, it is not possible to tell from this data whether trading activity in the EU and in the UK originates from EU or non-EU investors. One could expect that, in the event of disruption in the trading of EU/EUR-denominated bonds on UK markets, EU-based platforms would be able to absorb the trading activity of those securities. However, the same cannot be said for market-making activity performed by third-country operators active in either the UK or the EU because it requires both operational and capital resources.

⁹⁶ According to the European Federation of Pharmaceutical Industries and Associations (EFPIA), in 2022 52.3% of the global sales of pharmaceutical products took place in the US (22.4% in the EU). For further details, see EFPIA, [The Pharmaceutical Industry in Figures, Key Data 2023](#), 2023.

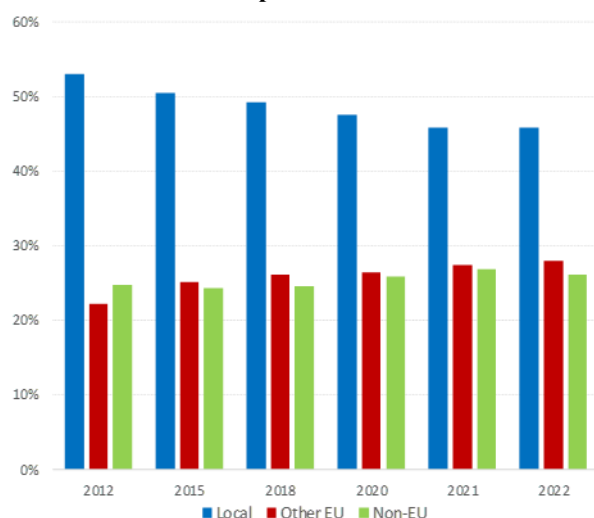
⁹⁷ International Capital Market Association (ICMA), [European secondary bond market data H2 2022](#), 2023.

3.6 Asset management

Investment funds are crucial for the effective accumulation of long-term savings and contribute to the efficient allocation of capital. They also provide wide and diverse investment opportunities for retail and institutional investors.

Asset management tends to be very international and indeed global. The EU investment funds industry more than doubled between 2012 and 2022, from EUR 8.1 trillion to EUR 16.8 trillion in terms of assets under management – despite a contraction of almost 12% between 2021 and 2022. This growth has attracted more foreign investors. 53.1% of investment in funds originated from national sources in 2012, but the share of local (national) ownership declined to 45.8% in 2022 (see Chart 3.16). The share owned by investors from other EU countries rose from EUR 1.8 trillion (22.2%) to EUR 4.7 trillion (28%) in this period – i.e. by 5.6 percentage points. The relative share of non-EU investors rose at a slower rate, by 1.5 pps only, following an increase from EUR 2.0 trillion in 2012 to EUR 4.4 trillion in 2022. The available data therefore suggests that European funds have become increasingly attractive for foreign investors, so much so that in 2022 under half of the funds were bought domestically and more than a quarter were acquired by non-EU investors. This decade-long trend shows how EU capital markets have deepened and investment opportunities in the EU have become increasingly attractive for foreign investors.

Chart 3.16: Ownership of EU investment funds



Source: EFAMA, *Factbook 2023*.

The stronger international demand for funds is matched by an even stronger internationalisation of the supply of funds (as measured by the regional distribution of their assets). The share of European stocks in UCITS equity funds declined from 51% in 2012 to 35% in 2022⁹⁸. The stronger performance of the US economy and US stock markets (largely driven by big tech stocks) explains the impressive spike in the share of US assets from 19% to 42%. The Asia-Pacific and Rest of the World regions have both declined by 3 pps over the last decade (to 19% and 14% respectively). The

regional distribution of investments in UCITS bond funds shows a similar trend toward growing internationalisation, probably driven by diversification concerns. The share of European bonds has thus declined from 61% to 53% over the last decade, while US and Asia-Pacific bonds rose by 5 and 2 pps to 28% and 9% respectively⁹⁹.

The growing internationalisation of EU funds (both in terms of demand (ownership structure) and supply (regional exposure)) raises the question of whether the growing openness and global interconnectedness between savings and investments go together with an increased reliance on foreign providers for key functions such as risk assessment and portfolio allocation. In the absence of hard data on the actual delegation of asset management to managers located outside the EU, it is worth comparing countries of domiciliation with countries of management in terms

⁹⁸ See EFAMA (2023), *Factbook 2023*.

⁹⁹ See footnote 98.

of outstanding volumes of assets (see Table 3.1). This shows that some jurisdictions (led by FR and IT) are emerging as financial centres that are developing expertise in fund management, while other jurisdictions (particularly IE and LU) are specialising in the domiciliation of funds¹⁰⁰.

Table 3.1: Investment funds by country of management and country of domiciliation

Member State	Ratio of managed to domiciled assets (%)	Net assets of funds by country of management (EUR billion)	Net assets of funds by country of domiciliation (EUR billion)
Belgium	114	209	183
Bulgaria	100	1	1
Czechia	105	22	21
Denmark	111	314	282
Germany	87	2 252	2 591
Greece	77	10	13
Spain	106	341	323
France	138	2 890	2 096
Croatia	75	3	4
Italy	143	488	341
Hungary	100	23	23
Netherlands	100	773	773
Austria	89	177	199
Poland	100	57	57
Portugal	83	24	29
Slovenia	100	4	4
Average			
Other EU Member States	20	1 884	9 581
EU	57	9 475	16 527

Source: EFAMA, *Asset management in Europe: an overview of the asset management industry*, December 2023.

Note: Other EU Member States' includes IE, LU and SE, where the total domiciled assets of these three Member States exceeds EUR 9.5 trillion (i.e. about 58% of all EU funds).

The fact that, on average, more than 40% of fund assets domiciled in the EU are managed outside the EU shows the high degree of global interconnectedness in asset management. However, this does not imply that the EU is critically dependent on foreign providers of financial services. Firstly, by application of the EU passport, the specialised domiciliation services developed by jurisdictions such as IE and LU make it easier for foreign investors to access the EU's fund industry. This concentration of domiciliation explains why four fifths of the assets booked in IE and LU are managed elsewhere. Secondly, as exemplified by the Member States that have a ratio of managed to domiciled assets above 100%, the EU does not lack financial expertise in the area of risk and portfolio management¹⁰¹. Thirdly, EU imports of services in portfolio and risk management are not limited to a single foreign company or jurisdiction that would have a monopoly. Taken together, these elements suggest that the high degree of internationalisation of

¹⁰⁰ Domiciliation is the original legal incorporation of the fund and its subsequent legal and accounting follow-up in order to guarantee investors' legal protection. Management is financial engineering in terms of asset selection and portfolio re-allocation. Both activities are very important, but management is perceived as the high added value end of asset management (because it relies on highly specialised skills) while domiciliation is perceived as a back-office activity.

¹⁰¹ A jurisdiction like the UK, which has a ratio of 250%, has arguably specialised even more in attracting and retaining this type of expertise.

asset management in the EU does not make the fund industry specifically vulnerable. Moreover, this industry has recently developed thanks to its openness and attractiveness to foreign capital.

3.7 Clearing and settlement services

Derivatives are important self-standing financial products, even though their value depends on an underlying financial asset. Firstly, they allow firms and individuals to transfer risks in a way that would have been impossible otherwise and therefore improve risk allocation within the financial system and contribute to more complete financial markets. This in turn stimulates investment and economic growth. Secondly, the underlying financial markets are becoming more efficient because derivatives produce new information and allow investors to easily act on it ¹⁰².

In addition to these aggregate benefits to the economy, derivatives also bring specific risks, especially when the counterparties to a transaction do not fully know each other's aggregate obligations. Counterparty credit default risk and the risk of triggering a systemic crisis via contagion are therefore considered to be key risks. To reduce this risk and to improve transparency in the market, clearing derivatives through central counterparties (CCPs) has become the norm for exchange-traded (ET) and standardised over-the-counter (OTC) derivatives ¹⁰³. CCPs are clearing houses that expressly guarantee the execution of a contract in the event that a member defaults or fails ¹⁰⁴. They are deemed to be part of the critical infrastructure of the derivatives market because they can reduce aggregate counterparty credit risk by reducing net credit exposures via multilateral netting and via their capacity to manage defaults in an orderly way by means of a pre-defined default waterfall ¹⁰⁵.

This naturally raises the question of the extent to which the EU derivatives market depends on CCPs that are located outside the EU. In terms of total outstanding notional amounts, the EU's derivatives market grew by 29% from EUR 244 trillion at the end of 2020 ¹⁰⁶ to EUR 314 trillion at the end of 2022. Looking at the relative importance of types of instruments, interest rate and currency derivatives had shares of 78% and 14% respectively, while equity (5%), credit (2%) and commodities (1%) only represented smaller shares of the EU derivatives markets (measured based on total outstanding notional amounts). It is noteworthy that the derivatives market has a very global dimension, even when one only considers assets denominated in EU currencies. Indeed, on average and based on notional amounts, 74% of the counterparties (76% in the case of interest rate derivatives) were non-EU entities, mostly located in the UK. This strong economic

¹⁰² See Stulz (2004).

¹⁰³ AIG's default was a catalyst for the mandatory introduction of CCPs for the clearing of standardised OTC derivatives (see [G20 leaders' agreement in Pittsburgh from September 2009](#)). AIG had sold almost half a trillion of credit default swaps for which it did not have a proper loss-absorption capacity. See also Cecchetti et al. (2009).

¹⁰⁴ A CCP differs from a standard clearinghouse because of the explicit execution guarantee. See Berndsen, R., *Five fundamental questions on central counterparties*, Center Discussion Paper Series 2020-028, 12 October 2020. In one of the very first systematic analyses of clearing and settlement, Bernanke (1990: 136) clarified that 'In interposing itself this way, the clearinghouse legally assumes the obligation of guaranteeing the execution of each trade to other clearing members, should one of the clearing members default or fail. As all writers on this subject have emphasised, this performance guarantee by the clearinghouse is an integral part of the futures contract. Its purpose is to enable investors to trade without concern about the creditworthiness of the individuals with whom they are dealing.'

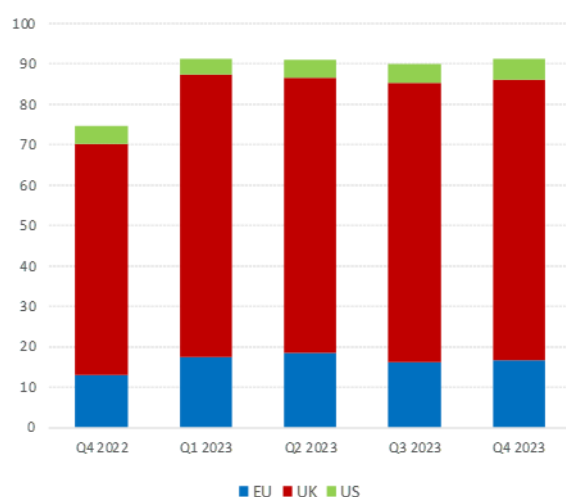
¹⁰⁵ Based on an extensive literature review, Berndsen concluded that, from a systemic risk perspective, central clearing is preferable to bilateral clearing under some conditions: when the number of clearing members is high, the number of asset classes is low, bilateral margin requirements are high or the number of systemically important financial institutions outside the CCP is low.

¹⁰⁶ ESMA, *EU derivatives markets 2023*, ESMA market report ESMA50-54821-2930, 6 December 2023. To put the size of the EU market into perspective, the BIS estimated the global OTC derivatives market size to be USD 618 trillion at the end of 2022. See https://data.bis.org/topics/OTC_DER/tables-and-dashboards/BIS.DER_D9.1.0.

exposure to UK counterparties suggests that the EU derivatives market could also be strongly dependent on the UK for central clearing.

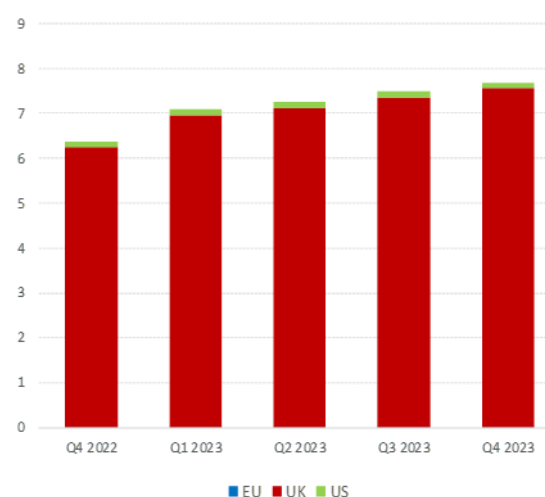
Data from the Clarus database confirms this dependency¹⁰⁷. At the end of 2023, only 18.3% of the USD 91 trillion of EUR-denominated contracts in the database were cleared by an EU CCP, 75.8% by a UK CCP and 5.9% by a US CCP (see Chart 3.17). Interestingly, the dependency is even greater in the case of derivatives denominated in an EU currency other than the euro. This market, where the outstanding open positions stood at USD 7.7 trillion at the end of 2023 (see Chart 3.18), was entirely dominated by UK CCPs (98.2%), with a marginal presence of US CCPs (1.8%)¹⁰⁸. USD-denominated contracts also relied heavily on UK CCPs for about half of the outstanding notional amounts, but the aggregate EU reliance on foreign CCPs was closer to 80% and hence deeper by an order of magnitude.

Chart 3.17: Clearing of EUR-denominated derivatives by jurisdiction



Sources: ClarusFT; and DG FISMA calculations.
Note: figures are expressed in USD trillions.

Chart 3.18: Clearing of derivatives denominated in other EU currencies by jurisdiction



Sources: ClarusFT; and DG FISMA calculations.
Note: figures are expressed in USD trillions. Values for the EU were very small and equal to 0.0012 in each period (rounded figures).

Several factors drove the high reliance of the EU derivatives market on critical infrastructures located in the UK. These factors included the prevalence of network effects in central clearing, and economies of scale and scope. The high degree of third-country dependency in the central clearing of EU derivatives entails serious financial stability concerns, especially in times of stress. In addition, the over-reliance on non-EU CCPs creates a risk that certain critical services provided by those non-EU CCPs might become unavailable, with no viable substitute, inside or outside the EU.

¹⁰⁷ The Clarus database reports the daily outstanding open positions for derivatives cleared by 18 CCPs, by underlying risk and currency and with a focus on the OTC segment. Its aggregate total of more than USD 320 trillion in mid-2023 suggests that it is sufficiently representative of the overall derivatives market, but the predominant share of the interest rate class (97%) indicates that it does not provide enough information for the four other classes.

¹⁰⁸ The Clarus database does not include data on PL's KDPW CCP, but its activity appears relatively limited. KDPW's 2022 annual report lacked detail, especially on currency denominations. It only stated that 'the value of guaranteed transactions cleared on the secondary derivatives market' amounted to the equivalent of EUR 100 billion at the end of 2022 (up from half that amount at the end of 2019). To put this number into perspective, the PLN-denominated interest rate derivatives cleared by LCH SwapClear (as reported by Clarus) were almost USD 1.3 trillion in open interest. SEK contracts cleared by the Nasdaq OMX accounted for the EU's 5% market share until June 2023. Clarus has since been reporting zero outstanding amounts, which explains the total disappearance of the EU market share (however small it had been before).

UK CCPs are currently subject to a regulatory and supervisory framework that was largely inherited from the European Market Infrastructure Regulation (EMIR) ¹⁰⁹. Following the UK's withdrawal from the EU, UK regulators might prioritise UK domestic concerns over considerations about financial stability in the EU if they have to take remedial or corrective action in a time of crisis. This introduces a degree of uncertainty regarding the preferred outcome from an EU perspective.

To address such concerns, in December 2022, the Commission submitted a proposal (EMIR 3.0) ¹¹⁰ to amend EMIR. This proposal complements the amendments already made to the EMIR that were proposed in 2017, adopted by the co-legislators in December 2019 and entered into force in 2020 (EMIR 2.2). EMIR 2.2 strengthened the supervisory framework for third-country CCPs, giving ESMA direct powers over two UK CCPs that were deemed to be of systemic importance (Tier 2 CCPs) for the EU under the new framework.

The interinstitutional negotiations on the EMIR 3.0 proposal took place in 2023 and the European Parliament and Council reached a political agreement on 7 February 2024. The agreed framework contains both supply-side and demand-side measures to address the EU's current over-reliance on third-country CCPs that provide critical services in certain classes of derivatives. On the supply side, it introduces measures to foster modern and competitive CCPs in the EU. In particular, it introduces streamlined authorisation procedures, which will enable CCPs to access the market more quickly, as well as enhanced supervision. On the demand side, it is less ambitious than the Commission's proposal but introduces an obligation for eligible financial and non-financial counterparties to maintain an active account with a CCP in the EU, to clear at least some transactions in this account and to report on that. The active account should kick-start initial action to reduce excessive exposures in substantially systemic clearing services offered by the relevant Tier 2 CCPs. ESMA will play an important role. It will have to further specify, through technical standards, the operational requirements associated with the active account, as well as the frequency and types of transactions to be cleared through the active account. In addition, ESMA will be required to report after 2 years on the effects of the active account requirement. On the basis of ESMA's report, the Commission may decide to introduce stronger requirements, including quantitative thresholds that ESMA may suggest, in order to reduce over-reliance on third-country CCPs that provide critical services to EU counterparties.

3.8 Credit ratings market

Credit ratings (CRs), and the agencies (CRAs) that produce them, are essential to the stable functioning of efficient capital markets. They provide a complex professional assessment of borrowers' creditworthiness and inform savers about the expected risk of their investments. They therefore appear to be a crucial prerequisite for issuers seeking to access market funding and for investors deciding on the allocation of their capital ¹¹¹. Systematic cases of biased risk assessment by investors and creditors (especially of underestimating risk) typically lead to malinvestment followed by a severe crisis and irrecoverable losses that often entail a high economic and social

¹⁰⁹ Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories, OJ L 201, 27.7.2012.

¹¹⁰ Proposal for a regulation of the European Parliament and of the Council amending Regulations (EU) No 648/2012, (EU) No 575/2013 and (EU) 2017/1131 as regards measures to mitigate excessive exposures to third-country central counterparties and improve the efficiency of Union clearing markets, COM(2022) 697 final of 7 December 2022.

¹¹¹ Credit ratings also play an important legal and regulatory role for fixed investment mandates and for determining banks' risk-based capital adequacy requirements, particularly under the standardised approach.

cost¹¹². This highlights the importance from a financial stability perspective of credit risk assessment in general and of CRs in particular, especially because over-reliance on external CRs could intensify herd asset purchases during the boom phase of a cycle or amplify fire sales during a bust¹¹³.

In response to the 2008 global financial crisis, when CRAs failed to properly assess the riskiness of structured finance products and even of sovereign debt instruments, the regulatory and supervisory framework in the EU was significantly strengthened, also taking into account the significant third-country presence in the EU market. The current framework¹¹⁴ aims to (i) reduce over-reliance on external CRs; (ii) increase the transparency of sovereign debt ratings to strengthen the quality and accountability of the rating process, while also reducing conflicts of interest; and (iii) encourage more actors to operate in the EU's CRs market. CRAs that are established outside the EU can have their CRs recognised for regulatory purposes under two distinct recognition processes. Firstly, the endorsement regime applies to CRAs that are affiliated or work closely with CRAs that are registered in the EU. CRAs established outside the EU must comply with certain legal requirements that are as stringent as the ones in the CRA Regulation and must be subject to effective supervision. Based on its own assessment, ESMA maintains a list of third countries with a regulatory regime that it recognises as sufficiently stringent. Secondly, certification under the equivalence regime is reserved for those CRAs that do not have an established presence in the EU. The equivalence regime applies to CRAs that are not systemically important for the stability or integrity of EU financial markets, and allows financial entities and instruments established or issued in non-EU countries to be rated. The equivalence certification requires a cooperation arrangement to be established between ESMA and the relevant supervisory authorities¹¹⁵.

141 600 CRs were outstanding at the end of 2022. The EEA-30 market accounted for 17% of the world market, in which all the parties involved (issuers, investors and CRAs) were truly global¹¹⁶. CRs accounted for almost 80% of the EU market, followed by sovereigns (12%) and structured finance (9%). Unsolicited CRs were practically non-existent in structured finance. By contrast, they accounted for almost a third of both sovereign and corporate CRs due to the important role that they play in enhancing the impartiality of solicited CRs under the 'issuer pays' model¹¹⁷.

¹¹² White (2009) argues that CRAs were too optimistic in their risk assessment and that this contributed significantly to the 2008 global financial crisis. The risk assessments were driven by the fee structure in which the issuer pays for the assessment, the complexity of the rated mortgage-backed securities, the lack of historical data and insufficient competition.

¹¹³ Research has found some support for the fact that the provision of high-quality CRs varies over the cycle. See Bar-Isaac et al. (2013). At the same time, the extremely slow responses of the CRAs to the worsening financial situation and ultimate bankruptcy of Enron (2001), WorldCom (2002) and Lehman Brothers (2008) suggest that fears about the role of CR downgrades in precipitating and amplifying the financial crisis might be exaggerated. See White (2010).

¹¹⁴ The framework is grounded in Regulation (EU) No 462/2013 of the European Parliament and of the Council of 21 May 2013 amending Regulation (EC) No 1060/2009 on credit rating agencies.

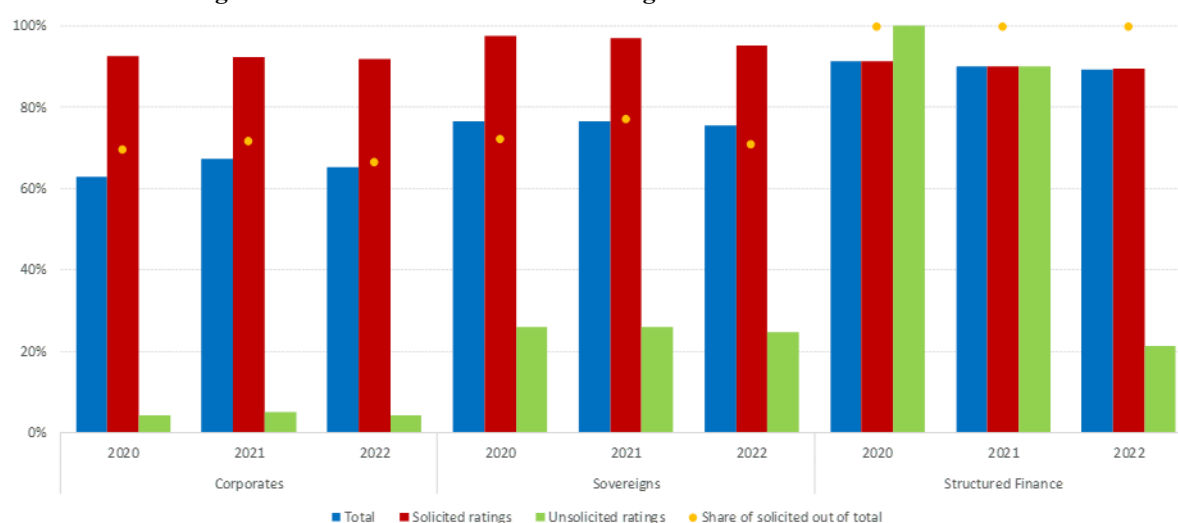
¹¹⁵ The list of equivalence decisions taken by the Commission can be found [here](#). Further information on the differences between the endorsement and equivalence regimes can be found [here](#).

¹¹⁶ Unless stated otherwise, data are based on ESMA, [EU credit ratings market 2023](#). ESMA50-165-2477, 25 April 2023.

¹¹⁷ Fulghieri et al. (2014) have developed the economics of unsolicited credit rating. In the framework of a dynamic rational expectations model, they show that i) unsolicited CRs function as a credible punishment threat to issuers, so CRAs can extract maximum fees for their solicited CRs; and ii) in equilibrium all favourable CRs are solicited, which implies that CRAs use the lower unsolicited CRs to demonstrate they are not inflating CRs artificially. Importantly, unsolicited CRs are not downward-biased and are lower due to self-selection by the lower-quality companies, which are those that do not solicit a CR.

In terms of concentration, the big three global CRAs accounted for 68.5% of the number of EU CRs and 92% of solicited CRs (see Chart 3.19)¹¹⁸. These shares increased to 79.6 % and 97.9% respectively for the five largest CRAs. The concentration is higher for sovereign CRs than for the corporate segment. However, this very high degree of concentration¹¹⁹ does not necessarily imply an absence of competition. On a non-consolidated basis, there are currently 26 registered and 3 certified CRAs in the EU¹²⁰. Barriers to entry and to exit do not appear to be high (as evidenced by the 6 new registrations, 18 deregistrations and 1 decertification since 2017) suggesting that the EU CRs market is rather competitive. However, this level of competition seems to be limited to the unsolicited part of the market, where the share of the big three global CRAs is less than 7% and accounts for less than 2% of the total turnover of the sector. However, this concerns almost a third of all sovereign and corporate CRs, so the smaller CRAs are a truly viable alternative, despite their lack of penetration in the solicited part of the market.

Chart 3.19: The Big Three's share of the EU credit ratings market



Sources: ESMA, *Market Report on EU Credit ratings market 2023*, 25 April 2023; and DG FISMA calculations.

By contrast, the solicited part of the market – which is the most lucrative – is dominated by the three global players. From a commercial perspective, this concentration raises questions regarding the lack of competitiveness of smaller competitors (the aggregate market share of the three main players was more than 93% in terms of turnover in the EU). However, financial stability risks were limited because viable alternatives with established expertise and reputation were readily available¹²¹.

¹¹⁸ These figures are very consistent with the regulatory market share calculation that ESMA must publish to determine the CRAs have a market share below 10%. Article 8d of the CRAs Regulation obliges issuers to justify any decision not to consider a CRA with a market share below 10% when a second CR is requested. This market share methodology, which is based on annual turnover generated from credit rating activities and ancillary services at consolidated group level, indicated a combined market share for the big three global CRAs of 91.6% at the end of 2021. See ESMA, [Report on CRA market share calculation](#), ESMA80-416-1564, 15 December 2022.

¹¹⁹ To the extent that CRAs derive their revenues from future reputation-based rents, their activity by default assumes an imperfectly competitive environment. Indeed, perfect competition is inconsistent with the build-up of reputational effects and rents. See Fulghieri et al. (2014).

¹²⁰ The latest list of authorised CRAs can be found [here](#).

¹²¹ It should also be noted that the three global CRAs operate in the EU through locally registered, and therefore locally regulated, subsidiaries. This implies that they are present in the EU market with locally engaged resources, which reduces the risk of a sudden stop of service and any related operational vulnerability.

3.9 Conclusion

The analysis presented in the previous paragraphs, which is mainly based on publicly available information, sheds light on the EU's reliance on third-country operators in EU financial services, and provides some concrete figures on their market shares.

Combining the EU market share of third-country financial service providers with an assessment of substitutability either in the EU or in other third countries (where the supply of the specific service is not concentrated) makes it possible to identify three main groups of activities.

The **first group of activities** includes derivatives clearing, which are characterised by low substitutability; and credit rating services (CRAs) and card retail payment services, which are characterised by a significant market share of third-country operators and medium to high substitutability.

The clearing of derivatives product categories by CCPs established outside the EU is the most prominent and most challenging case of high reliance by the EU on third-country financial service providers and is linked to Brexit. At the end of 2022, third-country CCPs cleared almost 80% and 98% of EUR-denominated and other EU-currency-denominated interest rate derivatives respectively. Such vulnerabilities are being addressed through the development of an adequate supervisory framework for third-country CCPs and through new requirements intended to encourage the opening of active accounts in the EU and to improve both the demand and supply sides of the market.

As regards credit ratings, the three largest CRAs accounted for more than 90% of EU turnover in 2022. However, the risks posed to the EU are less significant than in the case of CCPs, given the availability of alternative EU CRAs and the development of a regulatory framework that relies on enhancing the operational capacities of the EU subsidiaries of third-country CRAs.

As regards payment services, two thirds of cards issued in the EU were linked to the two international card schemes, including those intermediated by other payment service providers (e.g. mobile payments). Alternatives to card payments already exist, mainly at national level, and EU cross-border instant payments will soon become a reality.

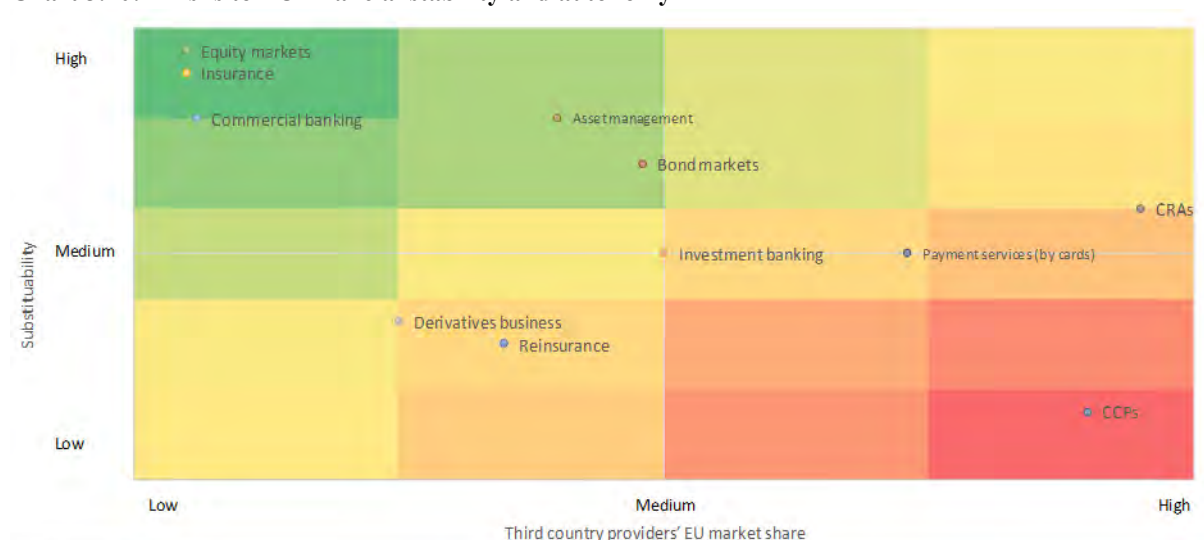
The **second group of activities** includes investment banking, derivatives business, reinsurance and, to a lesser extent, bond markets and asset management.

Notwithstanding the high third-country market share in investment banking (more than 50%), we assume a medium substitutability of this business by EU operators. On the one hand, EU banks can be assumed to have the necessary expertise and capacity to potentially take over the provision of investment banking services not fulfilled by third-country operators. On the other hand, they may not have the same ability as third-country investment banks to raise capital outside the EU. Similar considerations apply to derivatives business and reinsurance (particularly as regards potential constraints in terms of capital or liquidity resources and, to some extent, in terms of operational capacity).

Asset management is another area where third-country operators play an important role in the EU, but the EU industry is well developed and has the operational capacity to ensure that the provision of these services in the EU will not be disrupted. The high degree of internationalisation is therefore not considered to make the fund industry vulnerable to third-country risks. On the contrary, reliance on the provision of some services located in third countries (typically when it

comes to local expertise and analysis) is inherent in the nature of the activity, and this industry has developed in recent years thanks to its openness and attractiveness to foreign capital.

Chart 3.20: Risks to EU financial stability and autonomy



Source: DG FISMA.

Note: the degree of substitutability is the outcome of a qualitative assessment by the Commission.

The **third group of activities** consists of commercial banking, insurance and equity markets, where the marginal third-country market shares go hand in hand with the high degree of substitutability of third-country operators and platforms either by EU operators or by operators from other third countries. Nonetheless, the competitiveness of EU players and EU markets should be further strengthened (particularly by deepening the Capital Markets Union and the Banking Union) in order to facilitate the financing of the EU economy and the green and digital transitions.

Market circumstances and the geopolitical context are constantly evolving. It is therefore important to continuously monitor the risks that an excessive reliance on a small number of third-country operators (possibly from a single third country) could pose to the EU's financial stability and economic security, taking into consideration the degree of regulatory and supervisory cooperation between the EU and relevant third countries. In a more fragmented international financial system, deeper and more competitive Capital Markets Union and Banking Union are not only beneficial but critical to resilience of the EU economic and financial system. At the same time, upholding international standards and enhancing supervisory cooperation with third countries remain key to preventing and mitigating financial crises and also to limiting regulatory arbitrage and countering third-country influence on the EU financial sector.

It should be noted that existing dependencies on third-country service providers in the EU financial system mainly relate to jurisdictions (the US and the UK), with whom the EU cooperates in multilateral standard-setting bodies and which share the EU's foreign policy objective of working together to build a rules-based international order. This does not protect the EU's financial system against all possible disruptions, but it does greatly reduce the probability of geopolitical events affecting the provision of services by operators from those jurisdictions.

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