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TRV Risk Monitor

ESMA Report on Trends, Risks and Vulnerabilities No. 2, 2024

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Executive summary

Risk summary and outlook

Markets in ESMA's remit have continued to be resilient in 1H24, despite significant ongoing geopolitical risks and uncertainties on expected monetary policy loosening. Overall, risks remain at high or very high levels. In the first half of 2024 less volatile markets and a return of search-for-yield behaviour in riskier market segments suggested a general market anticipation of a 'soft landing' However, the short-lived dip in equity valuations in early August and market volatility around the European and French Parliamentary elections in June show that markets are very sensitive to economic developments, including shifts in interest rate expectations, to deteriorating credit risk and to political and electoral developments. There remains a high risk of corrections in a context of fragile market liquidity, in equity and in other markets, and ongoing concerns relating to real estate exposures.

Key risk drivers

Risk drivers	Previous risk level	Current risk level	Outlook
Higher-for-longer interest rates: The interest-rate environment conditions financial stability and investor outcomes. Even with rate cuts expected in the near-term, refinancing costs remain much higher than a few years ago, and are set to weigh particularly on corporates with debt maturing from 2024 onwards. Credit ratings have seen increasing downgrades.	■	■	↘
Political and peripheral risks: The confluence of external risks continues to dampen the economic and market environment, and market sensitivity to political developments appears to be rising. As uncertainty and fragile liquidity are limiting the resilience of the financial system, external shocks, incl. from international and domestic politics should be expected to translate into high price volatility. Cyber and operational incidences have not had systemic implications, but the recent CrowdStrike outage underlined the vulnerability of the financial system and of other parts of the economy as a result of dependencies on information technology.	■	■	↗
Real-estate valuations: Commercial and residential real estate continue to be affected by elevated interest-rates. This feeds into financial markets and investors through lower equity and debt pricing of real-estate firms, rating downgrades, and declining real-estate fund valuations and elevated liquidity risks. Derivatives and repo exposures are limited but concentrated.	■	■	→
Greenwashing: Greenwashing and related malpractices risk undermining investor trust and the credibility of green finance, impacting the ability of the financial system to finance the transition to a sustainable economy.	■	■	→
Social media driven investments: Investors, especially less sophisticated ones with limited knowledge or resources, are at risk of receiving false or misleading information through social media. As finance-related postings expand, investors not verifying the reliability and quality of information may incur losses.	■	■	→

Market monitoring

Securities markets: Asset prices in early 2024 trended upwards with relatively low volatility suggesting that future rate cuts were being anticipated and that a soft landing was being priced in. Later in 1H24, however, divergence in asset price performance emerged between EU and US equity indices, as markets adjusted in response to potentially diverging monetary loosening in the US and the EU. There have been episodes of market volatility around the European and French Parliamentary elections in June, and a short-lived dip in global equity valuations in early August associated with weaker-than-expected US macroeconomic indicators. In fixed income markets, corporate bond spreads have continued to fall, especially for high-yield corporates while the credit quality of high-yield (HY) non-financials has continued to decline, particularly real estate. This may indicate search-for-yield behaviour with a possible underestimation of risks in some HY debt.

Asset management: EU fund performance was positive across categories and funds exposed to fixed income instruments (bond funds and money market funds (MMFs)) recorded inflows. The increase in interest rates has been offset by a broad-based market perception of declining credit risk, reflected in low credit spreads. However, bond fund portfolio credit quality — measured by credit rating — has not improved, raising the risk of a disorderly repricing of risky assets in the future. Risks continue around liquidity and potential losses related to interest rates, credit risk and valuation issues. Open-ended real-estate funds remain particularly vulnerable given structural liquidity mismatch and downward pressure on valuation in housing markets.

Consumers: Increasing confidence around future market conditions was bolstered by an improving aggregate financial position for households. Consumers continued to make net purchases of bonds amid higher interest rates. The average performance of retail investments improved in 2023. Consumer complaint levels rose but remained below the two-year average.

Infrastructures and services: In 1Q24 overall equity-trading volumes showed a moderate increase (+5% year-on-year). In terms of relative composition, the share of over-the-counter (OTC) activity grew slightly. No noticeable trend in settlement fails occurred in 1H24. Cyber incidents in the financial sector globally remain a significant risk. Aside from the removal of municipal bond ratings by Moody's, for products that are aimed at US residents, the total number of outstanding ratings grew over the first half of 2024, mainly in corporate ratings.

Structural developments

Market-based finance: Capital availability for European corporates through capital markets has been broadly stable in 2024. Although the market environment continues to be very challenging for equity issuance, there have been signs of improvement in initial public offering (IPO) activity. Corporate bond issuance was high in 1Q24 but then decreased during the second quarter. The corporate-bond outlook continues to show a significant upcoming maturity wall from 2024 to 2028. In this context, corporate debt sustainability remains a considerable risk, especially in lower quality segments.

Sustainable finance: Over the last few years, the strong interest in and uptake of sustainable investments has been sending positive signals about investors' willingness to finance the green transition. However, recent environmental, social and governance (ESG) related market developments have sparked concerns about the ability to mobilise private capital successfully, with green bond issuance slowing and sustainable funds facing outflows for the first time in 2H23. Looking ahead, firms' ability to announce credible transition plans could steer broader willingness to invest in transitioning firms, supported by transition finance instruments.

Financial innovation: Crypto-asset markets continued to surge in 1H24, fuelled by the approval of spot Bitcoin exchange-traded products (ETPs)[1] in the US, to reach a total global market valuation of EUR 2.2tn as of end-June (+40% since end-2023). Liquidity recovered to pre-FTX levels. However, the market developments in early August led to volatility and some substantial falls in crypto-asset valuations. High concentration continues to prevail in terms of both crypto-assets and crypto exchanges. Bitcoin alone accounts for over 50% of the total crypto market cap and Tether, the largest stablecoin by far, accounts for about 70% of stablecoins' total size, while Binance accounts for almost half of the on-exchange trading volumes.

[1] Spot Ether ETPs were subsequently approved in May 2024.

Risk dashboard

Risk categories

Category	Previous risk level	Current risk level	Outlook
Liquidity risks	🟧	🟧	→
Market risks	🟥	🟥	→
Credit risks	🟧	🟥	→
Contagion risks	🟥	🟧	→
Operational risks	🟥	🟥	→
Environmental risks	🟨	🟨	→

Market segments

Securities markets

Previous risk level	Current risk level	Outlook
🟥	🟧	→

Risks

- Uncertainty about possible discrepancy in timing and level of monetary policy loosening between US and EU could drive market corrections
- Heightened geopolitical risks, as well as electoral outcomes in the EU and US raise likelihood of market volatility
- Potential underestimation of risks in some debt markets in a context of high indebtedness and refinancing needs and costs; corporate bond spreads continued to fall, particularly for HY bonds, despite weaker credit quality
- With record high stock market valuations, risk of disproportionate reactions to unexpected adverse events, given ongoing market nervousness

Asset management

Previous risk level	Current risk level	Outlook
🟧	🟧	→

Risks

- Discrepancy between positive market sentiment and inflows, especially in fixed income funds, and the actual level of risk in equity and bond markets
- Shocks affecting both asset liquidity and liquidity demands could challenge funds exposed to liquidity mismatches
- Delayed impact of monetary policy tightening, especially in sectors exposed to unrealised losses such as real estate

Consumers

Previous risk level	Current risk level	Outlook
🟧	🟧	→

Risks

- Aggressive marketing, especially of higher-risk structured products and crypto-assets
- Digitalisation, including emerging use of artificial-intelligence (AI) tools for client services
- Lack of consumer proficiency in social-media-driven and copy trading
- Potential greenwashing and limited ESG investing literacy
- Poorly disclosed high costs

Infrastructures and services

Previous risk level	Current risk level	Outlook
🟧	🟧	→

Risks

- Ongoing cyber and operational risk; cyber and operational incidences have not yet had systemic implications, but the CrowdStrike outage underlined the vulnerability of and potential for damage to the financial system.
- Ongoing significant operational risk to infrastructures generally, including exposure from increasing digitalisation and the use of cloud services in core production processes
- High reactivity to market events raises risks of margin breaches and trade disruptions

Note: Assessment of the main risks by drivers and categories for markets within ESMA's remit since the last assessment, and outlook for the forthcoming quarter. Risk dashboard based on the categorisation of the European Supervisory Authorities Joint Committee. Risk drivers are key factors influencing potential risks within ESMA's remit, assessed through a narrative-based approach. Colours indicate current risk intensity. Coding: green = potential risk; yellow = elevated risk; orange = high risk; red = very high risk. Upward-pointing arrows = increase in risk intensity; downward-pointing arrows = decrease in risk intensity; horizontal arrows = no change. Change is measured with respect to the previous quarter; the outlook refers to the forthcoming quarter.

Recent TRV Risk Analysis

ESMA publishes in-depth analyses across a wide range of risk issues. The list below highlights key ESMA Risk Analysis publications since the last TRV and their website links, as well as the latest editions of our ESMA Market Report series. For a full list of publications, visit our ESMA Risk Analysis webpage.

Securities markets, infrastructures and services

- Real estate markets – Risk exposures in EU securities markets and investment funds Link
- Evolution of EEA share market structure since MiFID II Link
- The August 2022 surge in the price of natural gas futures Link
- The EU securitisation market – an overview Link

Asset management

- Assessing risks posed by leveraged AIFs in the EU Link

Consumers

- Social media sentiment: Influence on EU equity prices Link

Sustainable finance

- Impact investing – Do SDG funds fulfil their promises? Link
- The financial impact of greenwashing controversies Link
- Dynamic modelling of climate shocks in the investment fund sector Link
- The European sustainable debt market – Do issuers benefit from an ESG pricing effect? Link
- ESG names and claims in the EU fund industry Link

Financial innovation

- Neo-brokers in the EU: developments, benefits and risks Link
- Crypto assets: Market structures and EU relevance Link
- Decentralised Finance: A categorisation of smart contracts Link
- Decentralised Finance in the EU: Developments and risks Link

ESMA Market Reports

- EU Securities Financing Transactions Markets 2024 Link
- EU Securities Markets 2023 Link
- EU Alternative Investment Funds 2023 Link
- EU Prospectuses 2023 Link
- Costs and performance of EU retail investment products 2023 Link
- EU Derivatives Markets 2023 Link
- EU Credit Ratings Market 2023 Link
- EU Money Market Fund Market 2023 Link

Risk monitoring

Market environment

The **external environment** remains challenging for EU financial markets, with pressures from the global real economy and markets as well as a variety of political sources.

Macro-financial conditions weakened further as monetary tightening has continued to feed through (Chart 1). In spring the European Commission's latest real GDP growth forecast for the EU was revised down to 1.0 % for 2024 from the 1.3 % of the 2023 autumn forecast, and a slightly lower 1.6 % growth forecast for 2025. In contrast, the global outlook became more positive, with the IMF raising its forecast for global growth for 2024, to 3.2 % from 2.9 % and forecasting global growth of 3.2 % for 2025.[2]

Inflation in the EU has fallen more quickly than expected. The Commission lowered its EU inflation estimates and forecasts to 2.7 % for 2024 (down 0.8 pps) and 2.2 % for 2025 (down 0.2 pps). Food and non-energy industrial goods have become the primary drivers of falling inflation. Despite the falls, inflation is not expected to return to target until 2025, and there remains significant variability between member states. Inflation also remains vulnerable to future energy price rises, with the ongoing war in the Middle East having the potential to disrupt energy supplies and distribution.

Interest rates of the main central banks were held fixed late in 2023 and into 2024 following a series of rate increases that started in 2022.[3] In early 2024, with inflation falling rapidly, rate cuts were signalled by the US Fed and the ECB for later in the year. The ECB subsequently cut its key rates by 25bps in early June. In the US an unexpected inflation jump in March shifted expectations, with US rate cuts now expected later in 2024.

Global financial conditions continue to reflect the tighter monetary conditions of the last two and half years, with higher lending rates and constrained credit standards. The overarching risk driver of the current market environment is the continuing impact of higher interest rates and the anticipation of near-term monetary loosening. However, uncertainty on the pace of rate cuts and possible divergence in rate-cutting schedules between major economies could also drive volatility in financial markets.

Commodity prices have been increasing again in 2024 after falling in 2H23 (Chart 4). The price increase was across a range of commodities and related to both demand-side and supply-side factors. Commodity demand is growing in anticipation of increased growth as monetary policy is eased. In addition, oil and some other commodities were affected early in 2024 by supply route disruptions in the Red Sea and drought conditions affecting the Panama Canal. In contrast, TTF natural gas prices have remained low compared to earlier levels and well below the activation thresholds for the market correction mechanism.[4]

Asset prices in late 2023 and early 2024 trended upwards with relatively low volatility (Charts 2 and 4) suggesting that future rate cuts were being anticipated and that a soft landing was being priced-in. Later in 1H24, however, divergence in some asset price performance emerged between EU and US equity indices, as markets adjusted in response to more persistent US inflation and anticipation of slower US monetary loosening. More recently, in early August, there was a sharp dip in equity values due to weaker-than-expected US job and manufacturing indicators, followed by a rapid recovery. Volatility also increased with geo-political developments following the European and French Parliamentary elections in June. In fixed income markets, corporate bond spreads have continued to fall, particularly for high-yield corporates (Chart 3), which may indicate search-for-yield behaviour in anticipation of a soft landing, with a possible underestimation of risks for some debt.

Higher interest rates are also continuing to affect **real estate** valuations and raise refinancing

2 IMF (2024), World Economic Outlook April 2024; European Commission (2024), European Economic Forecast – Spring 2024

3 The Federal Reserve System (Fed) kept the US benchmark rate in the target range of between 5.25 % and 5.50 %. The European Central Bank (ECB) kept the rate of the main refinancing operations remaining at 4.5 % since October (+0.25 pps since July 2023).

4 The market correction mechanism is activated either (i) if the front-month future price on the Dutch TTF is above EUR 180 per megawatt-hour or (ii) if the difference between the future price and a reference price calculated by ACER, based on the average price of several liquefied natural gas price markers, is higher than EUR 35. See ESMA (2023), 'Effects Assessment of the impact of the market correction mechanism on financial markets', March.

costs[5]. Metrics here are somewhat mixed, with some signs suggestive that the recent downturn may be bottoming out. The fall in residential real estate prices slowed in 2023 and EU real estate property indices rose at the end of 2023.[6] However, the fall in commercial real estate (CRE) prices continued through 2023.[7] Also, as real estate funds comprise 20 % of EU CRE investment, these funds are exposed to the ongoing market correction. Risks could materialise here from a combination of vulnerabilities, including unrealised losses, large market footprint and liquidity mismatches, particularly in the case of open-ended funds.

There are continuing signs of **credit quality deterioration** particularly among non-financial corporates which experienced negative ratings drift[8] as well as increased defaults, though these remain limited by historical standards. Ratings drift for real estate also remained negative but less so than before. So far, banks have faced limited credit risk materialisation, and public indebtedness in the EU has fallen, as detailed below. However, in the short-to-medium-term credit risks will persist, heightened by an increasing number of corporate issuers requiring refinancing in 2024 and 2025. These issuers will face significantly raised funding expenses given higher rates. Private credit has also been growing, which as a sector is less visible and has potentially worse credit quality. Sudden credit risk materialisation here could have spill-over effects.

The current uncertainty on rate-cutting is exacerbated by continuing high levels of **geopolitical risk.** After an initial reaction from global markets following the events in the Middle East in October 2023 and in January 2024, the financial market impact has remained limited so far. Financial markets have also stayed calm over the continuing Russian war against Ukraine.

Political risks also came to the fore around the European Parliament elections in June. Electoral results in some EU Member States and their potential longer-term implications led to discernible financial market reactions and increased volatility. Looking ahead, similar uncertainty exists as to the outcomes of forthcoming elections in the EU and elsewhere, including from the US Presidential election in November.

The **economic policy uncertainty** index (Chart 5) presents mixed signals, with some downward movement in the European and Global measures. European measures and the VSTOXX indicator moved up again from April. In the current context, sudden adverse changes or external events could spread rapidly and lead to strong market reactivity and a general surge in risk aversion.

Government debt levels in EU member states continued to fall. For the EU, the gross government debt-to-GDP ratio fell to 81.7 % in 4Q23 (and to 88.6 % in the euro area (EA)). This positive trend stands in contrast to the rising public indebtedness at global level. In key advanced and emerging economies, gross government debt is set to rise further in the coming years. After dropping sharply in December, sovereign bond yields have grown throughout 2024 as the anticipation of slower monetary loosening has grown. Continuing high interest rates, the weak growth outlook in the EU and different fiscal stances among member states remain sources of concern over debt sustainability.

Our composite market indicator suggests **systemic stress** continued to fall in early 2024, to its lowest levels since March 2021, after rising slightly in October 2023 with the Middle East developments (Chart 6). Lower correlations among asset prices are indicative of reduced contagion risk. The lower levels observed before June also fit with markets anticipating a benign outlook – a soft landing – as economies transition to monetary policy loosening. However, recent tensions related to political risk might result in higher stress.

Net investment flows from EA-domiciled investors were into the Euro area in early 2024 (Chart A.7). The inflows were predominantly driven by purchases of EA long-term debt securities and equities by non-EA investors, which offset increased investment by EA investors in non-EA securities.

5 See ESMA (2024), Real estate markets – Risk exposures in EU securities markets and investment funds, January.

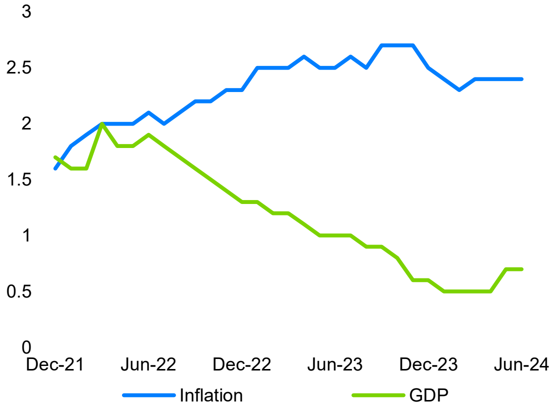
6 See Eurostat (2024), Statistics explained – House price Index: Highlights, April.

7 See ECB (2024), Commercial property price indicator, Euro area 18 (fixed composition) as of 1 January 2014, Quarterly, accessed 13 June 2024.

8 Ratings drift is a metric measuring the direction of rating change; it is the ratio of difference of the aggregate rating upgrades and downgrades during a period to the number of ratings outstanding at the start of the period.

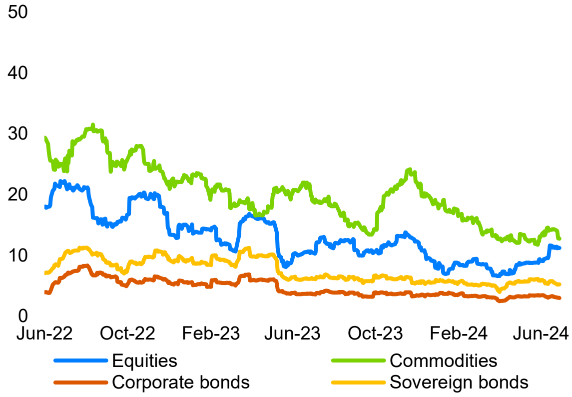
Key indicators

Chart 1
GDP and inflation forecasts for 2024
GDP and inflation forecasts stabilise



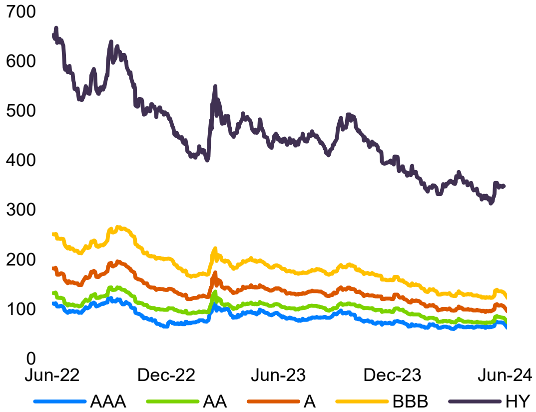
Note: Median GDP growth and inflation forecast for the euro area for 2024, by vintage month, in %.
Sources: Refinitiv Eikon, ESMA.

Chart 2
Market volatilities
Low across asset classes, despite June rise



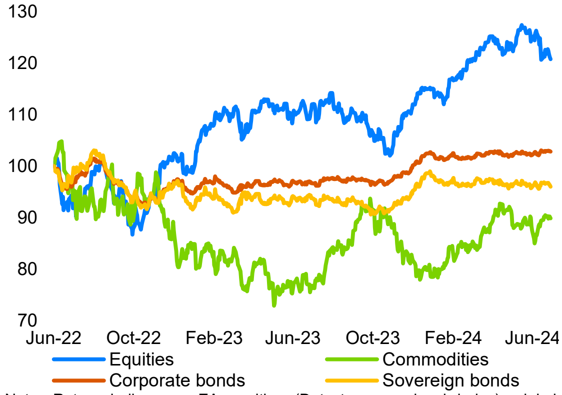
Note: Annualised 40D volatility of return indices on EA equities (Datastream regional index), global commodities (S&P GSCI) converted to EUR, EA corporate and sovereign bonds (iBoxx EUR, all maturities), in %.
Sources: Refinitiv Datastream, ESMA.

Chart 3
Corporate bond spreads
Spreads continue to narrow



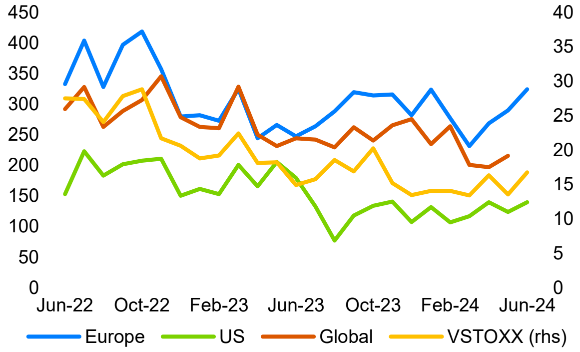
Note: ICE BofAML EA corporate bond option-adjusted spreads by rating, in bps.
Sources: Refinitiv Datastream, St Louis Fed, ESMA.

Chart 4
Market performance
Equities and commodities rise, fixed income flat



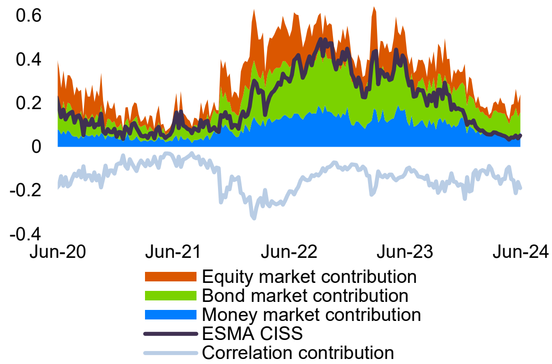
Note: Return indices on EA equities (Datastream regional index), global commodities (S&P GSCI) converted to EUR, EA corporate and sovereign bonds (iBoxx EUR, all maturities). 01/04/2022=100.
Sources: Refinitiv Datastream, ESMA.

Chart 5
Economic policy uncertainty index
European downward trend reversed in late 1H



Note: Economic Policy Uncertainty Index (EPU), developed by Baker et al. (www.policyuncertainty.com), based on the frequency of articles in European newspapers that contain the following triple: "economic" or "economy", "uncertain" or "uncertainty" and one or more policy-relevant terms. Global aggregation based on PPP-adjusted GDP weights. Implied volatility of EURO STOXX 50 (VSTOXX), monthly average, on the right-hand side.
Sources: Baker, Bloom, and Davis 2015; Refinitiv Datastream, ESMA.

Chart 6
ESMA systemic stress indicator
Systemic stress remains relatively low



Note: ESMA version of the ECB CISS indicator measuring systemic stress in securities markets. It focuses on three financial market segments: equity, bond and money markets, aggregated through standard portfolio theory. It is based on securities market indicators such as volatilities and risk spreads.
Sources: ECB, ESMA.

Securities markets

Equity: Strong performance in 1H24, low volatility

European equity market valuations rose by 11% in the first half of 2024, in line with the global increase in equity markets (Chart 10). Financials, and especially **bank valuations** observed the highest increase in 1H24 (Chart 12). While bank profitability remained robust[9], credit risks have started materialising, with non-performing loans increasing in 1Q24 and further asset quality deterioration expected. Conversely, most sectoral European valuations for non-financials increased in a more moderate manner compared to their end-2023 levels, with technology and healthcare displaying the highest 1H24 growth (+18 % and +16 %). However, market indicators with respect to valuation risks are mixed. On the one hand, the stock price increase appears to reflect benign investor expectations and may point to overvaluation, as does lower business investment observed in 1Q24[10]. On the other hand **price-to-earnings (PE) ratios** of EU firms remained stable at long-term average levels (Chart A.11).

Equity market **volatility** remained contained until April when it moved upwards, with a further spike in June possibly linked to political uncertainty around elections in the EU. However, implied and realised volatility remained below their long-term averages in 1H24 (Chart 11, A.12). This unexpectedly low volatility may foster excessive risk-taking and may contribute to a compression of risk premia. Another concern arises from the increase in the trading of short-term options and the popularity of short-volatility strategies, which could dampen the main US volatility indicator by reducing demand for the options that underlie it (Textbox 1). Moreover, in early August, there was a sharp increase in volatility as market expectations on the US macro-economic outlook shifted rapidly on weaker-than-anticipated economic indicators. Alongside a rapidly appreciating Yen, which drove substantial unwinding of the Yen carry trade and associated equity sell-offs, led to sudden and significant dips in global equity indices, though these then rapidly recovered in subsequent weeks.

Textbox 1

Concerns grow on short-term options trading

Trading in zero-days-to-expiry (0DTE) options has surged in popularity in the US in recent years. These contracts can be linked to indexes, ETFs, or single stocks. The appeal of these options stems from their limited time before expiry, rendering them cost-efficient and attractive to traders aiming to capitalise on intraday movements. Notably, the most sought-after options on the S&P 500 index accounted for a record 50 % of the volumes traded for S&P 500 options in August 2023 on the largest derivatives venue, CBOE. This rise appears to be partially driven by retail investors, with various proxies of their trading share ranging from 5/6 % to 30/40 %.[11]

There is currently a discussion on the impact of zero-day options on market volatility. On the one hand, growth of these options was recently suspected of contributing to the compression of the US volatility index, by diverting trading away from the one-month-to-expiry options used to calculate the CBOE Volatility Index (VIX), thus reducing their demand and depressing the indicator. However, a recent BIS analysis attributes the VIX compression to the surge in issuance of yield-enhancing structured products linked to the S&P 500.[12] For instance, betting on a 5 % rise in the S&P 500 index in the coming month involves purchasing the index and selling a one-month call option on it. On the other side, the dealers of such structured products hedge dynamically, effectively dampening the price movements of the underlying asset – in this case the options used in the VIX indicator.

It is possible that various factors are at play, including the overall market sentiment, and the increasing popularity of complex short-volatility strategies (of which yield-enhancing strategies are only one example), making use of the increasing range of short-term options.

In Europe, the adoption of zero-day options is a recent development, with two major European venues, Eurex and Euronext, introducing them respectively in August 2023 and February 2024. Despite the current low but growing volume of traded contracts (Chart 7)[13], there are inherent risks associated with zero-day options, in addition to potential losses for retail investors. Concerns have been raised that the high leverage of zero-day options can lead to one-directional trading. Depending on investor positioning, market makers must trade the underlying securities to keep their portfolios hedged, further exacerbating any price movements. ESMA will maintain vigilance in monitoring the potential implications for market stability.

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9 See EBA (2024), Quarterly Risk Dashboard 1Q24, June.

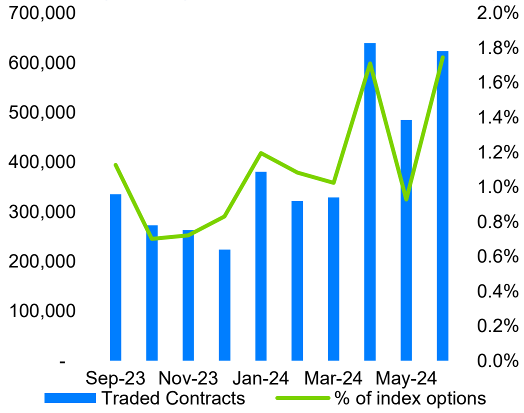
10 See ECB (2024), Bank lending survey, April.

11 See JP Morgan (2023),'0DTE options - Retail participation and Volmageddon risk quantified' and CBOE (2023), 'Bringing Cboe's U.S. Retail Playbook Abroad'.

12 See Bank of International Settlement (2024), What could explain the recent drop in VIX?, in BIS Quarterly Review, March.

13 Euronext does not provide numbers on zero-day options trading as of May 2024.

Chart 7
Number of zero-day options contracts traded on Eurex
Low but growing trend in European trading



Note: Monthly number of contracts of zero-day options traded on Eurex (lhs), and share of zero-day options contracts in equity index options traded on Eurex (rhs in %).
Sources: Eurex, ESMA.

Additionally, the deterioration of liquidity measures, as observed by increasing bid-ask spreads (Chart A.14) and continuing volatility in the level of ESMA's equity illiquidity indicator (Chart A.15), underscore an ongoing nervousness and potentially limited market resilience to unforeseen developments.

Fixed income: Yields up in 1H24

After falling at the end of 2023[14], bond yields rebounded in most countries at the beginning of 2024. The turnaround reflected a substantial revision of previous expectations on the future path of interest rates. Yields increased more in US, where the fall in inflation paused in 1H24. The yield increase was lower in Europe, where inflation continued to decrease albeit in a context of remaining uncertainty about the economic outlook and the speed of disinflation in the coming months. Although declining, market volatility remains material. Sovereign spreads and yield distributions for corporate bonds have continued to compress.

After falling at the end of 2023, **sovereign bond yields** increased in the early months of the year. The upturn reflected changes in investors' assessment about the implementation, and the potential postponement, of interest rates cuts in major economies. Despite the upturn, yields remained below the highs reached in the autumn of 2023. In the euro area, France saw the largest increase in 1H24 (+75 bps), followed by Italy (+47 bps), Germany (+43 bps) and Spain (+41 bps). US Treasury yields rose to 4.3% (+43 bps).

Sovereign spread movements across euro area countries were limited throughout 1H24, amid an elevated supply of bonds that has so far been met by high levels of demand from private investors. The reduction in the Eurosystem's balance sheet (down by about EUR 2tn since mid-2022) has taken place in a context of strong government bond issuance. This has led to a substantial increase in the amounts of bonds available for purchase. Net bond issuance has so far been smoothly absorbed by private investors, with households and foreign investors contributing the most[15]. After the European elections, spreads widened in many euro area countries, most notably in France, where the election outcome was followed by an unexpected call for early national elections at the end of June. The rise in political uncertainty led to some widening of credit spreads, but the increase has been limited overall and largely receded in early July, after the results of the French elections.

Corporate bond markets mirrored sovereign markets in 1H24. The yield distribution across ratings has also remained compressed overall. In 1H24, corporate bond yields increased for both investment-grade (IG) and high-yield (HY) by +28 bps and +21 bps respectively. As in 2023, HY bonds continued to perform better than IG bonds, reflecting strong investor demand to lock in high yields ahead of anticipated rate cuts by central banks. Search-for-yield behaviour and increased risk-taking may also reflect buoyant investor sentiment, following growing expectations that inflation dynamics in advanced economies are converging towards central bank targets without a deep economic contraction ("soft landing"). The high demand has pushed down spreads, with the average investment grade bond spread falling below 135 bps, the lowest level in two years. Trends are similar to those in other jurisdictions, such as the US, where spreads for securities at ratings of CCC or lower have tightened and fallen close to multi-year lows[16]. This is despite a surge in corporate insolvencies observed in early 2024.[17] The higher interest rate environment continues to weigh on

[14] See ESMA (2024), Report on Trends, Risks and Vulnerabilities, No1-2024, February.

[15] See ECB (2024), Who buys bonds now? How markets deal with a smaller Eurosystem balance sheet, May.

[16] See also Financial Times (2024), 'Investors pour money into US corporate bond funds at record rate', March.

[17] See also Financial Times (2024), 'Corporate defaults at highest rate since global financial crisis, says S&P', March.

high-yield companies, although default rates are expected to remain contained over the course of the year, thanks in part to lower funding costs. However, there are still some concerns about a possible underestimation of risks in some high-yield segments of the market.

Financial market conditions have remained favourable overall. Sovereign bond liquidity indicators improved further over the course of the year, benefiting from expectations of an easing in monetary policy in the coming months. Market volatility has continued to decrease, albeit remaining above the levels observed before the start of the monetary tightening cycle. Liquidity conditions worsened at the end of June, affected by political uncertainty in France: most reactive liquidity indicators, such as bid-ask spreads, widened significantly in the run-up to the two-round parliamentary vote in France (Chart 15). The impact primarily affected French securities and had fully reversed by early July. Corporate bond liquidity has improved through 1H24, with bid-ask spreads around 15 % lower than the 1Y-MA and the Amihud illiquidity ratio down to the lowest levels in two years.

Credit quality: Continuing decline for non-financials

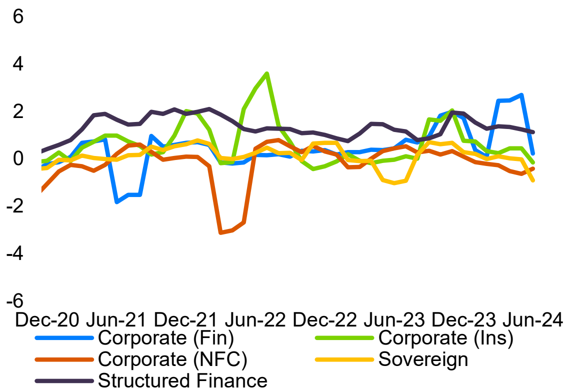
In early 2024 indicators issued by credit rating agencies (CRAs) for European debt continued to show signs of credit quality deterioration in certain debt assets.

Trends in credit quality are visible from the ratings drift, a measure of the direction and strength of the net change in credit quality. For EEA corporate **non-financials** the drift was persistently negative and fell throughout most of the period, indicative of downgrades increasingly outpacing upgrades for these firms (Chart 8). Part of the decline in credit quality of non-financials was a continuing deterioration in the credit quality of real estate firms, though ratings drift for the latter has become less negative. In contrast, ratings drift for financials was significantly positive on average, in line with the continuing strong performance of banks.

For **structured finance** debt ratings drift remained positive overall. However, ratings drift for CMBS in the EU remained negative while drift for RMBS, ABS and CDO all remained positive but fell slightly. Risks from commercial real estate (CRE) remain particularly present, visible not only in the negative CMBS drift, but specifically in downgrades of a few European senior CMBS tranches in the anticipation of losses.[18] Risks of contagion from US CMBS markets also remain. In February, there were some US CRE driven losses to German banks. There was also a notable default of a USD 308mn AAA-CMBS tranche in mid-May.

Sovereigns drift remained close to zero until the downgrade of France from AA to AA- by S&P which pushed the drift negative. Underlying this was slightly positive ratings drift in early 2024 for regional ratings and negative drift for public and state ratings especially later in the reporting period, associated with the downgrade of France.

Chart 8
Ratings drift by debt type
Corporate non-financials drift becoming negative



Note: 3-month moving average of net rating changes in EEA outstanding ratings from all credit rating agencies, excluding CERVED and ICAP, by asset class, computed as the percentage of upgrades minus the percentage of downgrades. Fin - Financials, Ins - Insurance, NFC - non-financials.

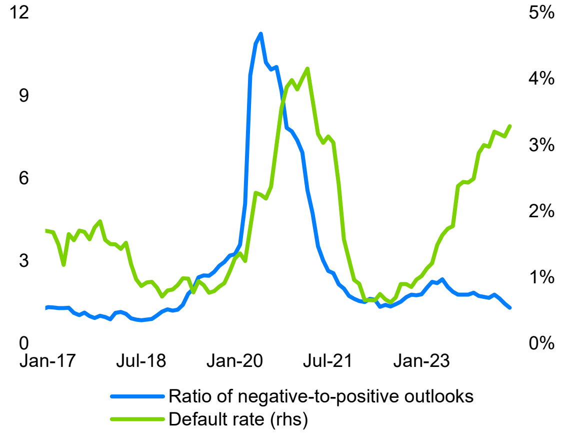
Fallen angels, IG EEA ratings downgraded to HY, fell slightly compared to the previous half year. In 1H24, 0.08 % of corporate investment grade ratings (down from 0.14 % in 2H23) and 0.12 % of structured finance investment grade ratings (also down from 0.14 % in 2H23) were fallen angels. As in previous periods, there were no fallen angels in sovereigns. Levels remain below historical averages (0.2 % for corporates and 0.15 % for structured finance since 2016); thus, risks that fallen angels could drive fire-sales by investors remain limited.[19]

[18] See also Financial Times (2024), 'Top-rated European commercial mortgage bonds set for first losses since credit crisis', June.

[19] Rising stars, upgrades from HY to IG, were down slightly for corporates (2.2 % in 1H24 compared to 2.4 % in 2H23) and for structured finance (1.9 % from 2.2 % in 2H23). There was a fall in the proportion of high-yield sovereign ratings that were rising stars (to 36 % from 67 % in 2H23), with rising stars here largely associated with some Italian regions and cities being upgraded by Moody's in April.

Among EEA HY grade corporate non-financials, the twelve-month **default rate** continued to grow (Chart 9). However, looked at on a half-yearly basis, defaults for HY corporates fell to 1.1 % in the first half of 2024, from 1.5 % in the second half of 2023, and to 0.13 % in for structured finance ratings, from 0.27 % in the second half of 2023. Corporate defaults were associated with non-financials, and in particular real estate. There were no reported defaults of IG ratings. The slowdown in defaults in the first half of 2024 is also reflected in the rolling 12-month default rate for HY defaults which shows a slowdown in default growth and a possible peaking of the 12-month default rate.

Chart 9
Ratio of negative to positive outlooks and default rate
Default rate grows further for high-yield NFCs



Note: Ratio of negative-to-positive outlooks ratings and 12-moth rolling default rate in % for high-yield EEA corporate non-financial ratings.
Sources: RADAR, ESMA.

Nonetheless, credit risks in securities markets remain elevated given the challenging economic environment and the fact that issuers increasingly need to refinance in 2024 and 2025 (Chart 38). This could drive further downgrades and defaults[20], particularly for HY corporates facing a large step increase in funding costs. However, to date, defaults have remained moderate and, except for real estate, there has been limited credit risk crystallisation.[21] Also, if and when rates decrease, this should help ease refinancing costs and mitigate risks somewhat. Additional risks could also arise from the much less transparent private credit market, which has been growing in recent years and is much harder to assess and monitor (Textbox 6).

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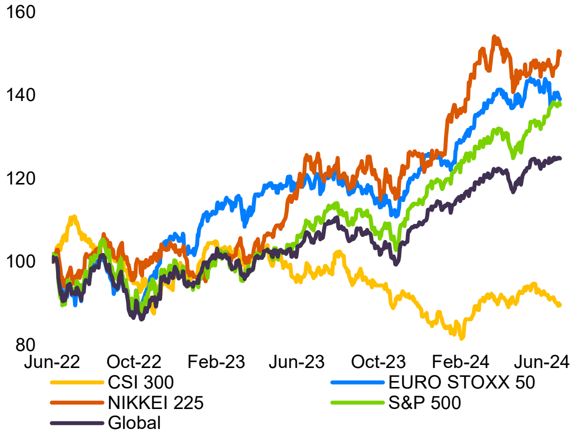
[20] The major CRAs also anticipate increases in European corporate high-yield default rates, see S&P (2023), Default, Transition, and Recovery: The European Speculative-Grade Corporate Default Rate Could Rise To 3.75 % By June 2024.

[21] For a further discussion of risks associated with private credit see IOSCO (2023), Thematic Analysis: Emerging Risks in Private Finance Final Report.

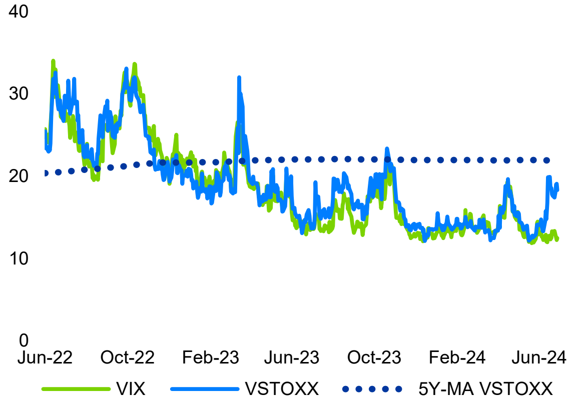
Key indicators

Chart 10
Regional equity market performance
Strong equity performance



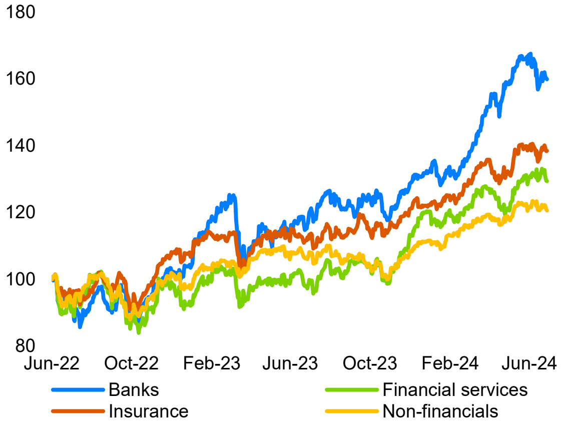
Note: Regional equity return indices. 01/09/2021=100.
Sources: Refinitiv Datastream, ESMA.

Chart 11
Equity market volatility indices
Generally low volatility in 1H24, June uptick in EU



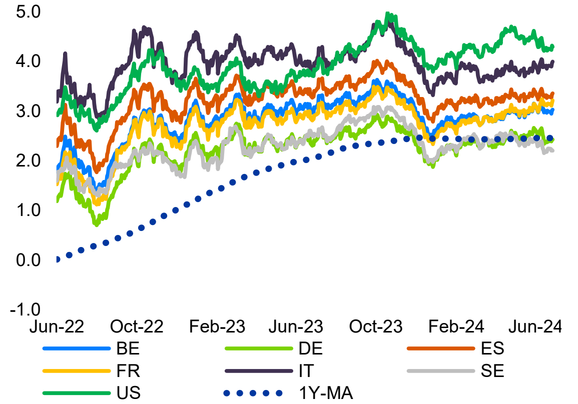
Note: Implied volatility of EURO STOXX 50 (VSTOXX) and S&P 500 (VIX), in %.
Sources: Refinitiv Datastream, ESMA.

Chart 12
Equity price performance in Europe by sector
Banks continue upward trend



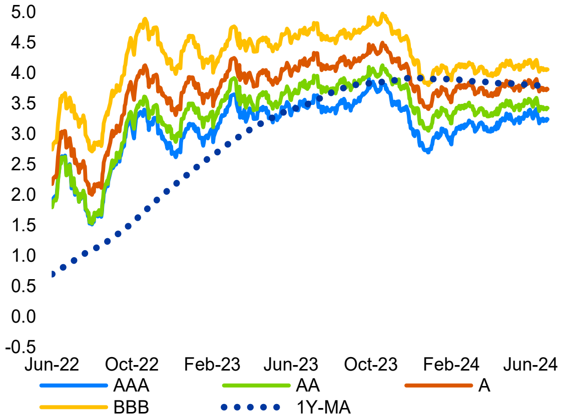
Note: STOXX Europe 600 sectoral return indices. 01/09/2021=100.
Sources: Refinitiv Datastream, ESMA.

Chart 13
EU sovereign bond yields
Yields rebound in early 2024



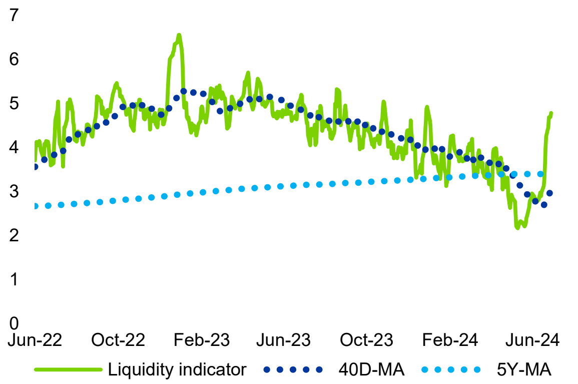
Note: Yields on 10Y sovereign bonds, selected countries, in %. 1Y-MA=one-year moving average of EA 10Y bond indices computed by Datastream.

Chart 14
Corporate bond yields
Limited increase, continued yield compression



Note: : ICE BofAML EA corporate bond redemption yields by rating, in %. 1Y-MA=one-year moving average of all indices.

Chart 15
Sovereign bond liquidity
Short-lived spike in illiquidity end-June



Note: Liquidity measured as median across countries of the bid-ask yields difference for 10Y sovereign bonds, in bps. Lower figures mean more liquidity and vice-versa. 22 EEA30 countries are included.

Asset management

Positive performance, inflows into bonds funds

EU fund performance was positive across fund categories reflecting a benign market environment. Equity fund returns over the last 12 months increased from 1.2% in 2H23 to 1.4% in 1H24. Despite their positive performance, equity (-1.2% net asset value (NAV)) and mixed funds (-2.3%) saw outflows. In contrast, bond funds were the only fund category to record significant **inflows**, representing 5.4% NAV. Within bond funds, corporate bond funds benefited from inflows (4% NAV), reflecting positive returns driven by the rise in the risk-free rate which offset the decline in credit spreads.

The trend towards higher yielding fixed-income assets is particularly visible in **money market funds** (MMFs). These generally experienced inflows (2% NAV) but with clear differences between MMF types. NAV funds, especially standard variable net asset value (VNAV) funds with a longer maturity, recorded substantial inflows (6% NAV). In contrast, flows into constant net asset value (CNAV) and low-volatility net asset value (LVNAV) funds were muted.

EA investment funds managed close to EUR 20tn in **assets** as of 1H24, 13% above the level of December 2022, when the sector reached a low point amid concerns around inflation, geopolitical risk and monetary policy tightening.

Credit risks potentially underestimated

Risks for funds are linked to liquidity risks and potential losses related to interest rate, credit risk and valuation issues. Vulnerabilities related to leverage remain high for some funds, triggering policy interventions in the case of GBP liability-driven investment (LDI) funds.

While funds managed the transition to higher interest rates, risks remained elevated, especially liquidity and credit risk. Bond fund holdings of liquid assets remained stable in 1Q24, thus maintaining their resilience to **liquidity risk** (Chart 21). However, the weighted liquidity of HY fund assets reached a 10-year low (4.5 % of NAV).

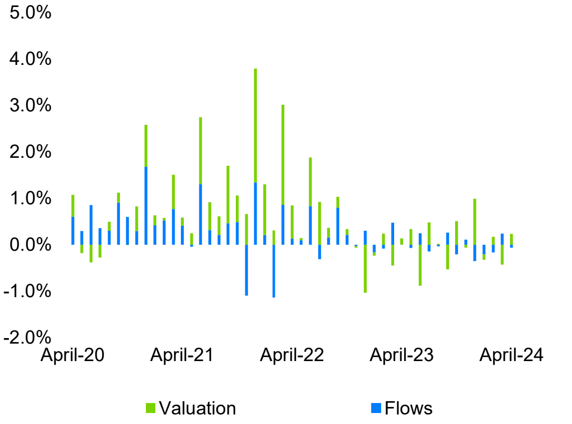
Despite some stabilisation of the macroeconomic environment, the risk of materialisation of **credit risk** remained elevated in 1Q24 for HY funds (Chart 22). The credit quality of HY portfolios has stabilised between BB– and B+ on average since 2021, compared to BB on average pre-pandemic. In line with credit risks in securities markets more broadly, the main concern remained the solvency of indebted companies in the context of higher-for-longer interest rates and an increased need for refinancing from 2024 onwards, as discussed in the market environment and securities market sections above. The divergence between the deterioration of credit quality and low spreads on riskier debt could trigger a disorderly adjustment in the case of negative shocks and abrupt changes in market sentiment.

Interest rate risk was stable, as the duration of bond fund portfolios remained close to 4.5 years, in line with broad bond market indices. In contrast, regarding MMFs, the weighted average maturity (WAM) increased further, up to 43.8 days, indicating a greater exposure to interest rate risk. This is now above the historical average (38.9 days). However, the results of interest rate stress tests show limited interest rate risk in 1Q24 across money market fund categories. In particular, funds whose mandate is to maintain a constant (CNAV) or stable (LVNAV) reported an impact on their NAV well below the regulatory thresholds[22]. From that perspective, credit and especially liquidity stress tests have a larger negative impact on funds. (Chart 23)

Valuation concerns remained, especially for funds that do not frequently value their assets as this exposes them to potential **unrealised losses.** In a context of declining real estate prices, real estate funds especially need to reevaluate their portfolio regularly, otherwise they are exposed to temporary valuation discrepancies.

[22] LVNAVs are subject to a NAV collar of 20 bps and CNAVs of 50 bps. For LVNAVs, if the mark-to-market NAV breaches the threshold, redemptions have to be paid at market prices (instead of par).

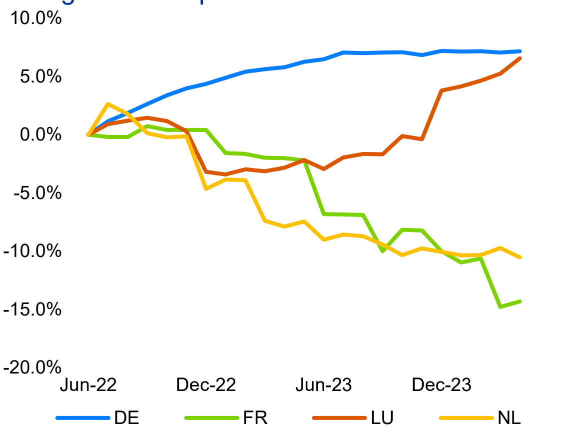
Chart 16
RE fund flows and valuations
Flows and valuations are stable



Note: Flows and valuation effects, EA RE funds
Sources: ECB.

At the EU level, real estate fund valuations have generally factored in the price decline. In 1Q24 both flows and valuation were stable in the aggregate (Chart 16). Looking at a longer period reveals large disparities at national level. Within the largest real estate (RE) fund jurisdictions, valuations declined by more than 10% since 2022 in both France and the Netherlands. In contrast, over the same period, the value of German fund assets increased by 7%. Finally, in Luxembourg the trajectory is in between, as valuations appear to have recovered from an initial decline[23] (Chart 17).

Chart 17
Real estate cumulated valuation effects
Divergent developments across member states



Note: Cumulated valaution effects in DE, FR, LU and NL since June 2022, in % of AuM
Sources: ECB.

This is, however, not reflected in the flows of RE funds, which follow the opposite trajectory, with cumulated flows representing 3% AuM in France and the Netherlands since 2022 while declining in Germany. In Luxembourg, initial inflows gave way to outflows and the cumulated 2-year flows are now only slightly positive. The risk is that unrealised losses may exist in jurisdictions where valuations have not adjusted, thus giving a first-mover advantage to redeeming investors.

The risk has materialised in individual cases, without systemic consequences so far. In some jurisdictions the decline of property prices led to heightened redemptions to the point of creating liquidity tensions although suspensions of redemptions have been limited overall. This is especially the case in jurisdictions where daily redemption is allowed: in the EU 31% of CRE funds offer daily redemption, though around 65% of open-ended CRE funds also have a notice period. Eventually, delayed priced adjustments can lead to drastic devaluations, with one German fund reporting a downward valuation adjustment of around 17% in July, as part of its quarterly portfolio revaluation.

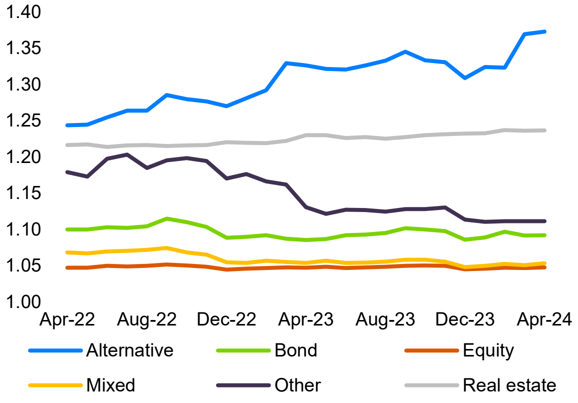
Similar concerns have emerged in the US, as illustrated by the stress that affected Starwood Real Estate Investment Trust, one of the largest unlisted US property funds, in May 2024. The fund had to impose gates to limit redemptions to 0.33% of NAV each month (against 2% previously), following substantial redemptions and subsequent liquidity issues.

Leverage-related risks remain an issue for funds. Gross measures of leverage (which

23 The trend of Luxembourg RE fund valuations is not clear-cut, as AIFMD data indicate that they have remained negative.

include financial and synthetic leverage[24]) point to an increase within the alternative fund sector. The ratio of assets under management to net-asset value now represents 137 % for alternative funds, compared to 122 % at the end of 2022 (Chart 18). ESMA will be particularly attentive to the evolution of leverage, and particularly the most leveraged funds, in the context of its annual assessment of leverage-related risks under Art. 25 AIFMD.

Chart 18
Financial leverage
Alternative funds leverage at two-year high



Note: Leverage of EA investment funds by fund type computed as the AuM/NAV ratio.
Sources: ECB, ESMA.

Following the stress that affected EU GBP funds pursuing liability-driven investment strategies (LDIs) in 2022, the CBI and the CSSF imposed measures to address risks posed by the use of **leverage** in such funds (Textbox 2).

Textbox 2

Measures taken under article 25 to address the risks posed by GBP LDI funds.

On 29 April 2024, the CSSF and the CBI announced the activation of AIFMD Article 25 measures to address the risks posed by GBP LDI funds.

Motivation

In September 2022, some funds pursuing GBP LDI strategies were subject to acute liquidity stress following a sharp rise in UK sovereign yields (130 bps in a few days). The increase in yields triggered a large fall in the value of sovereign bonds used as collateral by GBP LDI funds and a surge in margin requests on interest-rate derivative exposures of those funds. As GBP LDI funds sold sovereign bonds amid low market liquidity, the downward price pressure created a self-reinforcing price spiral that led the Bank of England to conduct a temporary and targeted programme of purchases of long-dated UK government bonds (gilts).

Considering the high level of leverage reported by some GBP LDI funds and their large market footprint on the gilt market, substantial asset sales by GBP LDI funds run the risk of impacting market prices. Moreover, in the event of a significant yield shock, the potential liquidity needs stemming from the use of interest-rate derivatives and repos expose them to the risk of forced sales, with potential spillovers to other entities and especially MMFs. Overall, if not mitigated, GBP LDI exposure to interest rate risks make them susceptible to amplified shocks affecting the gilt market through disorderly asset sales, with broader macro-financial implications in the UK and in the EU.

Measures taken

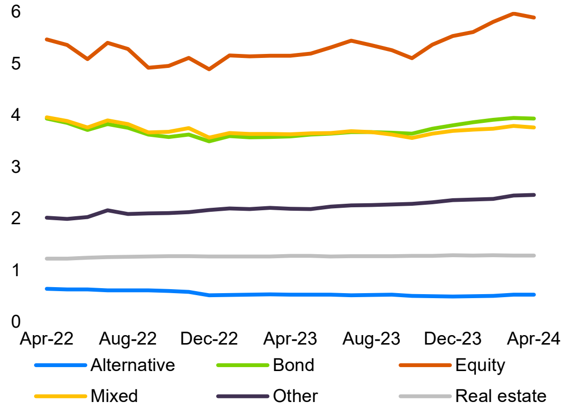
The measure consists in requiring GBP LDI funds to be able to withstand a rise in GBP yields of at least 300 bps before their NAV turns negative. For this purpose, the CBI and CSSF require GBP LDI funds to develop a weighted average of the interest rate sensitivity of all their exposures and maintain a buffer of liquid assets available to meet margin or collateral calls that result from a rise in interest rates of at least 300 bps.

This measure codifies the limit set after the September 2022 stress. This is the second time, after the measure taken by the CBI to address risks in the property fund market, that the Article 25 has been used to address systemic risks. In its advice, ESMA supported the measure.

[24] Financial leverage gained through borrowings can be measured using balance sheet information. However, synthetic leverage (using derivatives) is more difficult to estimate.

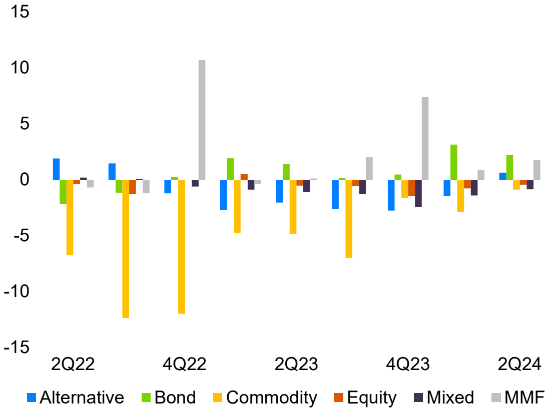
Key indicators

Chart 19
EA fund assets
Equity fund valuations rise



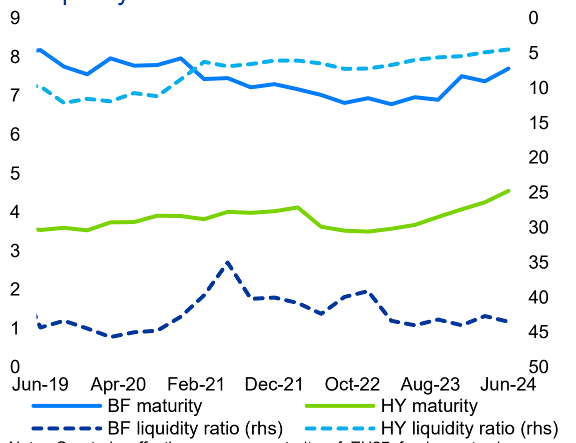
Note: AuM of EA funds by fund type, EUR tn.
Sources: ECB, ESMA.

Chart 20
EU fund flows by fund type
Muted flows, except for bond funds



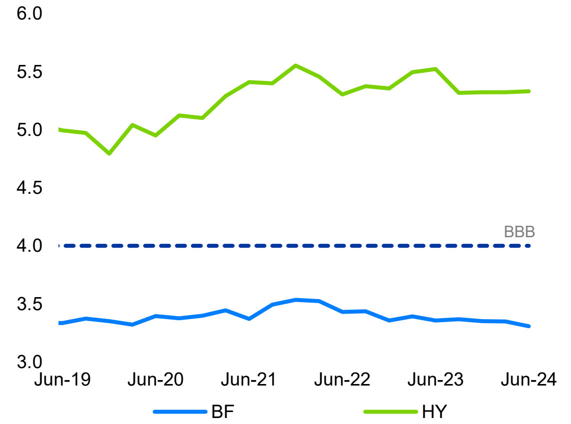
Note: EU27 fund quarterly net flows, in % of NAV.
Sources: Refinitiv Lipper, ESMA.

Chart 21
Liquidity risk profile of EU bond funds
HY liquidity ratio at its lowest



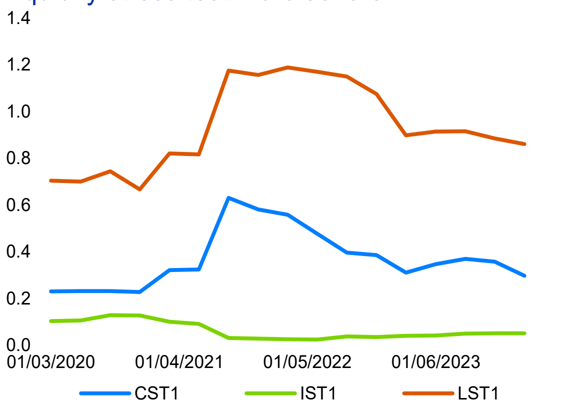
Note: Quarterly effective average maturity of EU27 fund assets, in years; ESMA liquidity ratio (rhs, in reverse order).
Sources: Refinitiv Lipper, ESMA.

Chart 22
Credit risk
Credit risk elevated in HY funds



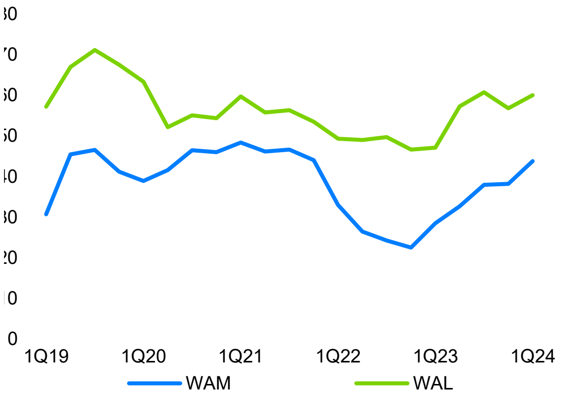
Note: Quarterly average credit quality (S&P ratings; 1= AAA; 4= BBB; 10 = D) for EU27-domiciled funds .
Sources: Refinitiv Lipper, ESMA.

Chart 23
MMF stress tests
Liquidity stress test more severe



Note: Median impact of MMF credit (CST1), interest rate (IST1) and liquidity (LST1) stress tests, December 2023, in % of NAV
Sources: MMR reporting, NCAs, ESMA.

Chart 24
MMF maturity
WAM and WAL increase



lote: Weighted average maturity (WAM) and weighted average life (WAL) of urope-domiciled MMFs, in days. Aggregation carried out by weighting individual IMFs' WAM and WAL by AuM.
ources: Fitch Ratings, ESMA.

Consumers

Confidence picks up

Investor confidence in future market conditions strengthened in 1H24 (Chart 28), which may reflect expectations of more moderate inflation and lower interest rates in the medium term. Sentiment in current market conditions remained weak, however, amid geopolitical uncertainty and low economic growth.

One factor that may have boosted confidence was a continuing recovery in the aggregate financial position of households. Disposable income growth (6 %) remained above inflation (3.7 %) over 2023, while holdings of financial assets increased significantly (5.9 %). However, this recovery was tempered by a decline in the value of households' real assets (-0.4 %).

Following rises in interest rates, the total value of **bonds held by EU households** increased by nearly 60 % over 2023. Net inflows into bonds were around 3 % of disposable income as of 1Q24, representing over half of net financial investments by households. Nonetheless, bonds remain a minor asset class for EU households, at less than 3 % of their financial assets, versus 24 % for equities and 10 % for investment funds.

Improving returns

The **performance of retail investments** was positive in nominal terms but remained below inflation. Based on a stylised portfolio for retail investors (Chart 29), the 1Y-MA of monthly gross returns stood at 0.9 % in nominal terms in May 2024, which was 0.6% in real terms.

In 2Q24, **retail fund returns** were strongly positive, with positive annual performance net of costs across all asset classes (Chart 30). Equity funds delivered the highest net returns during this period (15 %), followed by mixed funds (10 %), having been strongly negative over 2022 (respectively - 18 % and - 13 %). Bond funds enjoyed solid growth (7 %), up from 2 % a year earlier (Chart 31).

While all asset classes exhibited positive and improving returns, **net flows into retail funds** continued to vary widely by asset class (Chart 32). On the one hand, retail investors disinvested from mixed and equity funds, resulting in aggregated annual net outflows of EUR 140bn in 2Q24. At the same time, bond funds experienced net inflows of a similar magnitude (EUR 140bn), coinciding with strong inflows into direct holdings of bonds amid improved returns.

New securities trading patterns

Neo-brokers have grown rapidly in recent years in the EU and globally, offering their clients innovative, online-only financial services. The arrival of these new firms may impact the structure of financial markets. Changes in how investment firms and clients interact may have positive or negative consequences for retail investors. To gain an understanding of their activities, ESMA conducted a market survey of EU-based neo-brokers (Textbox 3).

Textbox 3

Growing presence of neo-brokers in the EU

Neo-brokers are a recent wave of digital-only entrants into the financial services market. These investment firms offer users real-time trading in financial instruments and adopt different business models, largely depending on the type of financial instrument traded.

In 2023 ESMA launched a data collection exercise that involved surveying entities operating in the EU that ESMA identified as neo-brokers based on their online platforms and stated business models.[25] In total, the sample of firms represented around 10mn client accounts.

The results confirm that the majority of neo-broker trade volumes (>90% among sampled firms) originate from retail investors, mostly from EEA countries. In contrast to findings from other recent studies, the neo-brokers surveyed do not have an especially young client base.

Many of the neo-brokers in the sample offer a wide range of investments available to clients. Among the most commonly-offered products are shares, ETFs, contracts replicating shares/ETFs including 'fractional shares', contracts for differences (CFDs), derivatives and crypto assets.

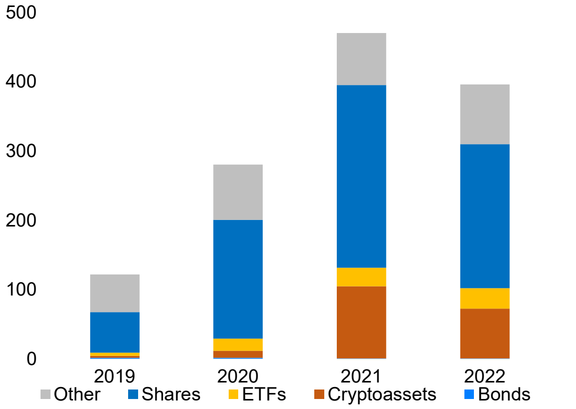
Neo-brokers generally act as a service provider when clients trade shares and ETFs and will often charge an order-based commission. However, when offering other instrument types such as bonds, firms are likely to act as a counterparty to client trades (i.e. trade OTC), where they gain revenue from the bid-ask spread. Neo-brokers execute the majority of client orders in shares and ETFs in a limited number of trading venues, which are often not the main national markets. These smaller markets tend to have a higher concentration of transactions from retail orders.

25 See Colesnic, Harris and Lorusso (2024), Neo-brokers in the EU: Developments, benefits and risks, ESMA TRV Risk Analysis article.

Neo-brokers can bring benefits to investors and markets, including promoting capital market participation among households and lowering transaction prices. At the same time, they can pose risks to investors, for example if they facilitate trading in risky or complex products potentially not suitable for individual retail clients, or if a firm's fledgling revenue model cannot withstand serious market stress.

The results confirm that most of the firms' trading volumes originate from retail clients. Share trading accounts for the majority of order volumes, though volumes of ETFs and other products are increasing (Chart 25).[26] Larger neo-brokers tend to offer wide ranges of securities issued in the EU and the US, while smaller firms tend to specialise in national markets in the EU. Overall, US-issued shares are the most commonly traded, but those issued in the EU are a significant and growing proportion of trades.

Chart 25
Selected asset types traded via EU neo-brokers
Shares more traded than cryptos, ETFs, bonds



Note: Volume in EUR bn excluding CFDs. CFDs volumes are excluded because as leverage products, they not comparable with other asset classes. 'Shares' and 'ETFs' include OTC contracts that replicate the performance of equity shares or ETFs respectively (or fractions thereof).
Sources: Neobrokers survey 2023, ESMA.

Some neo-broker platforms integrate social media feeds or even enable community-based trading strategies such as copy trading. More generally, **social media** has become a prominent source of information for online investing. Participants on social media platforms may offer financial advice, discuss corporate news or investment strategies and advertise financial services, though they may also promote meme stocks. Some posts may be generated through automated means, including via AI tools.

While the expanded use of social media by retail investors comes with a host of opportunities, it also carries risks. On the one hand, it is a convenient way for consumers to retrieve information rapidly, often presented in an accessible manner. On the other hand, there are risks linked to the reliability of information posted. Investors, particularly those with low financial literacy, may act based on misleading information, including rumours. The phenomenon of financial influencers giving financial recommendations on social media adds the risk that advice is given without following the relevant rules. Against this background, ESMA recently published a warning for people posting investment recommendations on social media.[27]

Textbox 4

New GameStop rally in 2Q24

In 2Q24, the US-based retailer GameStop (GME) was at the centre of a "meme-stock" episode with echoes of another period of extreme volatility in the stock in 1Q21. Extreme price movements followed a statement by a popular social media influencer who reported making a substantial investment in GameStop shares. This led the stock price to surge, before falling rapidly, in May 2024.

A similar episode occurred again on 6 June when the share price of GameStop rose by 75% in two days and halved the next day. This was led by increased retail investor purchases that coincided with a surge in social media posting (Chart 26). The price developments were not linked to any news about economic or financial fundamentals.

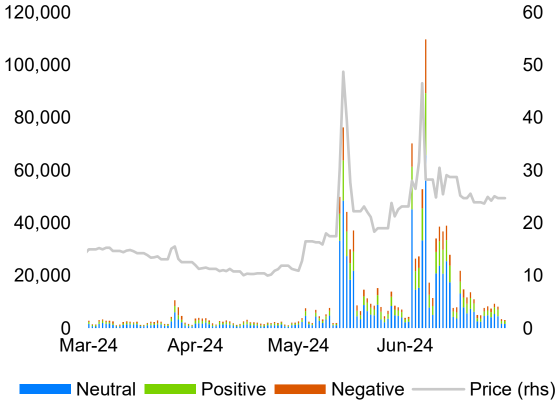
The days of the price spikes saw exceptionally high social media activity. For example, on 7 June, over 30,000 accounts posted more than 100,000 messages linked to GameStop across more than 150 social media platforms. Out of these, 93% were regular users, 3.6% influencers or verified profiles and 3.1% bots. Textual analysis of these posts confirms that the main topics of posts involving GameStop were linked to financial markets. The most mentioned words included key terms such as "stock", "short", "share", "trading" and "hedge" (Chart 27).

The amount of daily interaction and the number of authors involved also shows the rapidity with which information spreads and how easily retail investors can be misled by unverified information. It also emphasises the very short-term, transitory nature of the effects of social media hype on stock prices.

[26] Some recent sovereign bond issuances have targeted retail investors specifically. See [EU-Government-retail-targeted-bond-issuance.pdf (icmagroup.org)]

[27] See ESMA (2024), [Warning on Posting Investment Recommendation on Social Media].

Chart 26
Share price and social media activity on GameStop
Surges in May and June



Note: Number of positive, negative and neutral social media messages on Gamestop Corp. in 2Q24. Gamestop Corp. price in $ in rhs.
Sources: Stockpulse, Refinitiv Eikon, ESMA.

Chart 27
Most mentioned topics during stock rally days
Main topics linked to financial markets

Note: Word cloud chart of most mentioned topics in social media messages linked to GameStop Corp. on 7 June 2024.
Sources: Stockpulse, ESMA.

In its risk monitoring activities, ESMA also recently introduced an indicator for social media activity linked to each of the STOXX 600 constituents.[28] After a sharp decline at the end of 2023, social media activity bounced back in the first half of 2024 to a monthly average of 350,000 messages. Overall, the social media sentiment around equities in the STOXX 600 remains moderately positive, though lower than in 2H23.

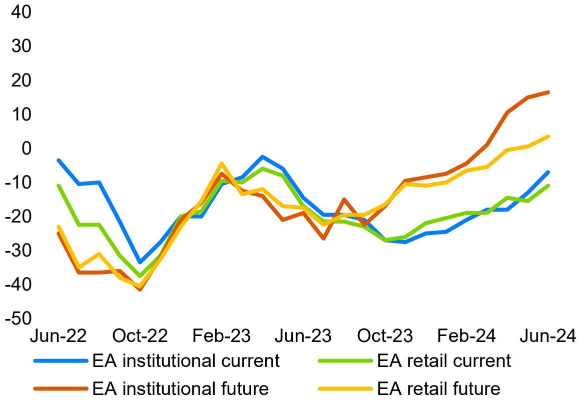
Investor protection: Complaints slightly up

Complaints reported through firms and directly by consumers to national competent authorities (NCAs) totalled around 3,600 in 1Q24, near their 2-year quarterly average (Chart 31) and up slightly from recent quarters. Complaint numbers are down from the high levels seen during the pandemic amid turbulent trading conditions and a boom in retail trading. In 1Q24, among complaints for which an instrument type was recorded, most related to CFDs.[29] Around 12% related to equities, down from 30% a year earlier.

[28] See ESMA TRV Risk Monitor no 1, 2024, p 20.
[29] Interpreting patterns in complaints data requires an understanding of recent events and data limitations, such as significant time lags and heterogeneity between Member States. An additional reason for caution is that the data do not include some major retail markets for these products (e.g., Netherlands, Poland) and only some complaints can be categorised as referring to a financial instrument.

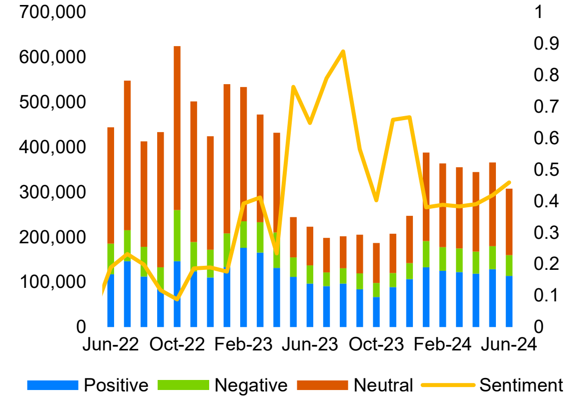
Key indicators

Chart 28
Investor sentiment
Improved confidence in future conditions



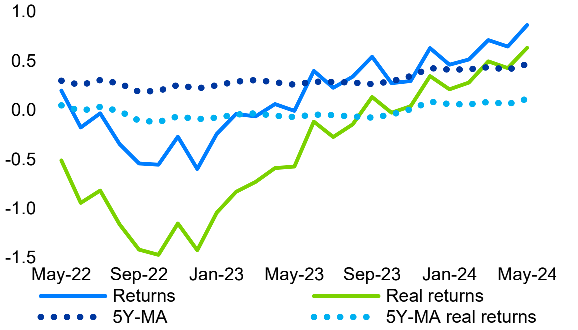
Note: Sentix Sentiment Indicators for the EA retail and institutional investors on a ten-year horizon. The zero benchmark is a risk-neutral position.
Sources: Refinitiv Datastream, ESMA.

Chart 29
Social media attention
Renewed attention on EU stocks



Note: Social media messages mentioning constituents of the Stoxx 600 Index, classified by sentiment type. "Neutral" messages are defined as the number of "Total" messages minus "Positive" and "Negative".
Sources: Stockpulse, ESMA.

Chart 30
Nominal and real returns
Gradual improvement in portfolio returns

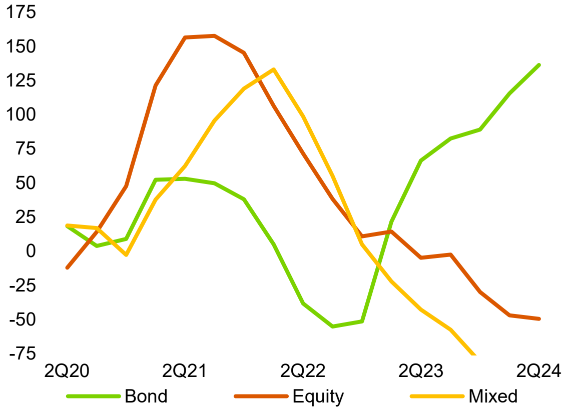


Note: One-year moving average of the monthly gross nominal and real returns of a stylised EU household portfolio, in %. Asset weights, computed using National Financial Accounts by Institutional Sectors, are 36% for collective investment schemes, 39% for deposits, 22% for shares and 3% for debt securities. Costs, fees and other charges incurred for buying, holding or selling these instruments are not taken into account.
Sources: Refinitiv Datastream, Refinitiv Lipper, ECB, Eurostat, ESMA.

Chart 31
Retail UCITS net return by asset type
Returns pick up

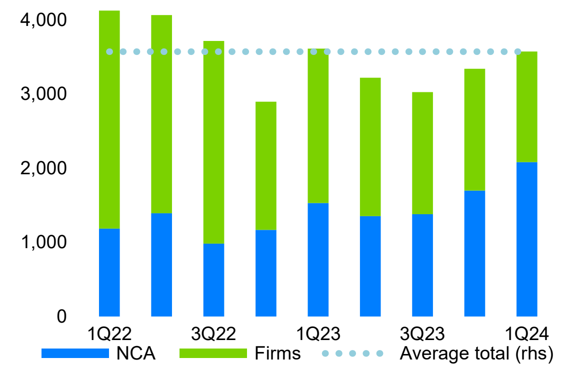
Note Evolution of net annual performance (net of ongoing costs (TER), subscription and redemption fees) of EU27 UCITS, retail investors only, by asset class, in %.
Sources: Refinitiv Lipper, ESMA.

Chart 32
Retail UCITS net flows by asset class
Net inflows for bond funds



Note: EU27 UCITS annual net flows, retail investors only, at quarterly frequency by asset class, EUR bn.
Sources: Refinitiv Lipper, ESMA.

Chart 33
Overall complaint volumes
Complaints at 2Y average



Note: Number of complaints recorded by quarterly-reporting NCAs (n=13) via given reporting channels. "NCA"=Reports lodged directly by consumers with NCAs. "Firms"=Complaints recorded by NCAs via firms. "Average total"=average total number from 1Q22 to 1Q24.
Sources: ESMA complaints database.

Infrastructures and services

Cyber incidents: Risks are high and growing

Cyber incidents in the financial sector have been trending upwards globally in recent years (Chart A.131). Like other firms, market infrastructures can be impacted. For example, at the beginning of 2024 the US securities lending platform Equilend was subject to a ransomware attack that led to an outage in services from late January to early February 2024.

While cyber incidents so far have had limited impact, risks remain high. The vulnerability of IT systems was also highlighted on July 19 when a CrowdStrike software update led to widespread IT outages and disruption globally. It affected some financial firms, including the LSEG, whose news and data platform was impacted, disrupting updates to markets. [30]

According to the IMF, the financial sector is particularly exposed, with nearly one-fifth of all cyber incidents affecting financial firms.[31] Moreover, current geopolitical conditions globally are raising risks. Russia's war of aggression against Ukraine has included widespread cyberattacks against entities based in the EU, while the war in the Middle East and the forthcoming US election could drive further growth in cyber incidents.

Trading venues: Moderate increase in volumes

In 1H24, **equity trading volumes** increased, on average, with respect to 2H23 (+ 29%, monthly) and to 1H23 (+ 12%), reflecting higher cyclical activity in the first months of the year, along with the continued appreciation in equity valuations and low volatility. In terms of composition, a small decrease in the relative share of OTC activity trading was observed in 1H24 (-1.5%), while trading in systematic internalisers increased by 1.7pp to 9.6%. The share of trading in EEA lit venues, dark pools and periodic auctions remained unchanged (Chart 34).

The Italian market authority fined two firms in violation of both the transparency and the covering rules in European short-selling regulation. [32]

Settlement: Fail rates volatile

Settlement fail rates have generally decreased since the introduction of cash penalties under CSDR in February 2022. In 1H24 asset classes displayed volatile behaviour in settlement fail rates (Chart 37). Settlement fail rates for exchange-traded funds (ETFs) continue to show high levels, and there was an increase for UCITS in March, associated with one type of settlement instruction for one securities settlement system.

Textbox 5

The US introduces T+1 settlement

On 28 May 2024 the US moved to T+1 settlement. No noticeable trend on settlement fails has occurred in 1H24 linked with the change. Even though the impact on EU markets seems limited so far, ESMA will monitor for different risks associated with such a change. Specific challenges include mismatches between securities and foreign exchange settlement cycles, which increase costs and risks, especially with less liquid currencies and multiple time zones. The shorter cycle also impacts securities financing transactions, like securities lending and repos, requiring efficient collateral management within a tighter timeframe. Additionally, different settlement cycles for multi-listed securities could lead to funding gaps and operational inefficiencies, affecting liquidity and pricing.

CRAs: Moody's US muni-bond ratings de-endorsed

The total number of outstanding ratings reduced significantly in early 2024 due to a decision by Moody's[33] no longer to endorse ratings of US municipal bonds for use in the EU, given these are almost entirely invested in by US residents. This led to the removal of about 290,000

30 Reuters (2024), "LSEG's Workspace platform suffers widespread outage, trading hit", 19 July 2024.

31 IMF (2024), "Global Financial Stability Report", 16 April 2024.

32 See Consob (2024), "Delibera n. 23093" and "Delibera n. 23094", 4 June 2024.

33 Moody's Investor Service (2023), "Moody's announces changes to endorsement of US Public Finance credit ratings for use in the EU and UK", 30 November 2023.

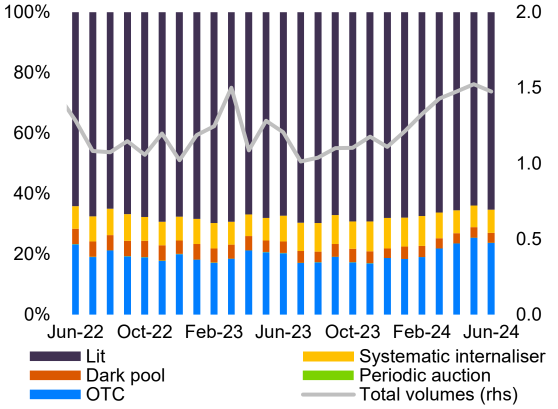
sovereign ratings from the ESMA RADAR database.

With these ratings excluded, outstanding ratings grew by 10,400 ratings in the first half of 2024. Of these, 5,600 were for EEA issuers or instruments with growth split between corporates (+5,100), sovereigns (+140), and structured finance ratings (+310). (Chart 39).

In line with previous periods, the majority of new ratings for EEA debt were issued by **smaller CRAs,** with 51% issued by CRAs not among the 'big three' (Fitch, Moody's, and Standard and Poors), contributing to the ongoing slow fall in the share of the **big three CRAs** in outstanding ratings (Chart A.146). However, the big three CRAs issued an increased share of ratings solicited by a debt issuer (90% in 1H24, up 1 ppt from 2H23), with this share high across debt types (91% for corporates, 84% for sovereigns and 90% for structured finance), showing again their continuing dominance in the solicited ratings market.

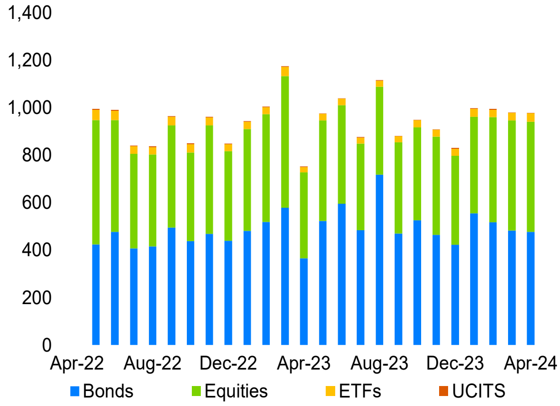
Key indicators

Chart 34
Equity trading volumes
Moderate increase in volumes



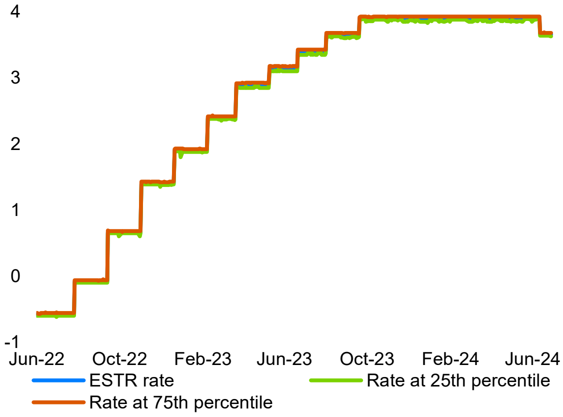
Note: Type of equity trading in the EEA as a percentage of total equity turnover. Total equity trading turnover in EUR trillion (rhs). Last available data point is June 2024.
Sources: FIRDS, FITRS, ESMA.

Chart 35
Turnover by asset type
Stable composition of on-exchange turnover



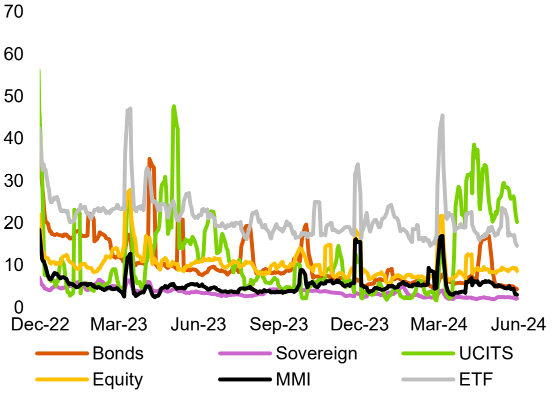
Note: Monthly turnover on EEA30 trading venues by type of assets, in EUR bn. Data for Aquis Exchange, CBOE Europe Equities, Equiduct, London Stock Exchange and Turquoise are not reported for bonds, ETFs and UCITS.
Sources: FESE, ESMA.

Chart 36
€STR rate



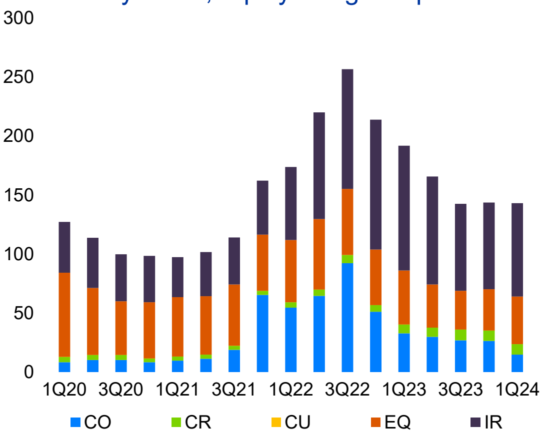
Note: €STR rates at 25th, 50th and 75th percentile of volume, in %.
Sources: ECB, ESMA.

Chart 37
Settlement fails in EEA central securities depositories



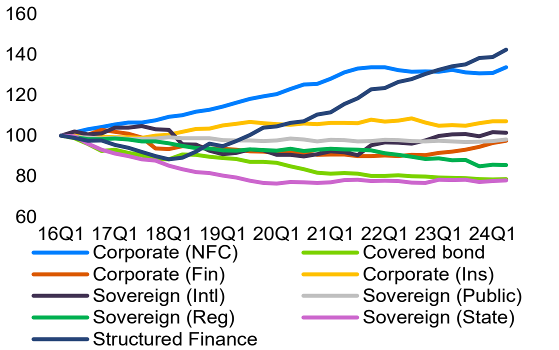
Note: Settlement fails as a % of total value of settlement instructions at EEA level. One-week moving averages. Extreme values removed.
Sources: CSDR7, ESMA

Chart 38
Initial margins collected by EU CCPs by asset class
Commodity down, equity margins up



Note: Outstanding amounts of intital margin required and excess collateral received by EU27 CCPs for derivatives . in EUR bn.
Sources: TRs, ESMA.

Chart 39
Outstanding ratings
Growth in number of financial ratings



Note: Evolution of the number of outstanding EEA issuer and instrument ratings by debt category, indexed 1Q16=100. S&P, Moody's and Fitch. NFC- non financial, Fin - financial, Ins - insurance, Intl - international, Reg - regional. Supranational sovereigns omitted due to very small population.
Sources: RADAR, ESMA.

Structural developments

Market-based finance

Debt securities issuance dominates

The **ability of non-financial corporations to raise funds** in capital markets was broadly stable in 2024 (Chart 41). Primary bond markets continue to be a significant source of funding for European corporates. Although the market environment continues to be very challenging for equity issuance, there were some signs of improvement in initial public offerings (IPOs).

Textbox 1

Private credit grows as source of finance

Private credit, where credit is arranged privately rather than obtained from a credit institution or from a public bond issuance, is valued for its confidentiality, flexible structuring, and efficiency of execution. However, it is not transparent and not subject to prudential regulations. Moreover, recent macroeconomic conditions and tougher capital requirements for banks have driven its exponential growth as an alternative to bank credit. The market has doubled in size since 2015 and is now worth at least USD 1.7tn in AUM globally[34]. As of 1Q23, the European private credit market was estimated to have USD 460bn in AUM[35].

Historically, traditional financial institutions have maintained limited exposures to private credit, typically amounting to single-digit percentages of assets under management. Nonetheless, certain groups of pension funds and insurers in the EU and globally may be exposed. According to the IMF, the private credit assets of insurers influenced by private equity firms have grown significantly in recent years, with these entities having significantly more exposures to less-liquid investments than their more traditional counterparts. .

Risk exposures can be increased by multiple layers of leverage deployed by investors and borrowers which increase contagion risks through interconnectedness. There is a risk that some private equity funds could face significant capital calls in a downside scenario, with potential transmission to their leverage providers. If this were to occur in a widespread fashion, the scenario could incentivise the wider network to reduce exposures, triggering spillovers to other markets and the wider economy. This would be compounded by data constraints, posing challenges for supervisors in evaluating exposures across various segments of the financial sector and assessing potential spillover effects.

Market-based financing remained at moderate levels in 1Q24, above the lows of 2022[36]. Euro area (EA) enterprises still perceive that the general economic outlook is negatively affecting the availability of external financing, albeit to a lesser extent than in 2023, and firms expect the availability of external financing to improve further in the coming months[37]. The financing gap continued to widen, but much less so than in the past months, given a reduction in needs and only a small decline in the availability of external financing.

Equity issuance: Modest increase and IPO rebound

Equity market issuance grew slightly during 1H24, with a modest upturn in IPOs. The total number of issuances in primary equity markets exceeded 500 in 1H24, corresponding to a total volume of about EUR 47bn, 26% more than in 1H23 (Chart 42). Equity issuance slowed in the second quarter of the year, particularly for secondary offerings of already publicly-listed firms. Most of equity issuances in 2024 remained concentrated within industrial firms. Issuances were highest in France, Germany and Italy.

Although still very low, the **IPO market** showed signs of improvement (Chart 42). In 1H24 IPO activity totalled EUR 7.8bn, more than four times the historically low 1H23 levels and exceeding the total issuance for all of 2023 (EUR 6.3bn). With the move out of a market environment characterised by rising interest rates and uncertain inflation, confidence now appears to be growing in a potential revival of the market, given anticipated monetary policy loosening[38].

Secondary offerings volumes continue to be much higher than IPO volumes (Chart 42) and **follow-on** issuances almost reached EUR 40bn in 1H24, about 10 % more than in 1H23 and 2H23. Special purpose acquisition company (SPAC) activity in the EU has remained subdued overall. Over the past two years, both the number of deals and amounts raised have been stable and well below the 2021 peaks.[39]

34 See IMF (2024), 'Global Financial Stability Report', April.

35 See ECB (2024), 'Financial stability Review', May.

36 See ESMA (2022), 'Report on Trends, Risks and Vulnerabilities', No 2, 2022.

37 See ECB (2024), 'Survey on the access to finance of enterprises in the euro area' – October 2023 to March 2024. The financing gap indicator combines both financing needs and the availability of bank loans, credit lines, trade credit, and equity and debt securities issuance at firm level.

38 Bloomberg (2024), 'Europe's Battered IPO Market Sees Early Signs of a Revival', March.

39 In 2024, there was an average of less than one deal per quarter, less than in the previous two years (1 and 2.3 in 2023 and 2022 respectively) and significantly lower than in 2021 (slightly less than 10 deals per quarter). The

Corporate bond issuance further increasing

Corporate bond issuance volumes (Chart 43) in 1H24 have been high, reaching around EUR 1tn, and exceeding the issuance in 1H23 and 2H23 (+7 % and +20 % respectively). Dealmaking activity in bonds was very high in 1Q24 (EUR 537bn), almost reaching the peaks of 1Q23. About half of the 1H24 issuance was in non-rated bonds (EUR 462bn or 46 %). Among rated bonds, issuance remained concentrated in IG bonds (EUR 452bn or 84 %). HY issuance was also strong in 1H24 (EUR 84bn), above 2H23 levels (EUR 48bn), being supported by strong investor demand (see Securities Markets section). The average credit rating at issuance remained at A- (Chart 44).

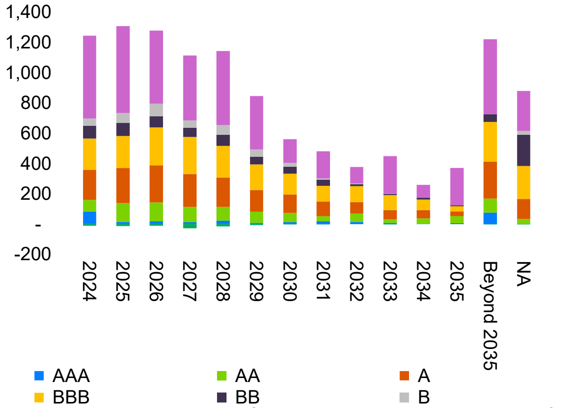
The average weighted maturity at issuance for longer-dated bonds showed a trend reversal in January 2024, rising from 6 years in December 2023 to 9 years in early 2024 (Chart 45). The turnaround may have signalled a growing preference for issuing longer-dated bonds at the beginning of 2024, following the fall in yields at the end of last year (see securities market section), as firms were able to issue longer-dated debt at the same, if not lower, rates. The trend has weakened in subsequent months, though the average weighted maturity remains higher than in 2023, at about 8 years.

The issuance of **short-term bonds** continued at pace at the start of 2024, with some corporates still acting to avoid paying high coupons for longer, by not issuing longer-term securities in the current high interest rate environment. A total of EUR 808bn (-9 % from 2H23) of short-term securities were issued in the first half of 2024, with a slight slowdown in 2Q24 (Chart 46).

Corporate maturity wall until 2028

The current interest rate environment continues to test companies' ability to service and roll over their debt. EEA corporates will remain exposed to substantial refinancing risk as long as a large share of their debt matures in the near term and needs to be refinanced at higher rates. Indeed, the redemption profile of corporate debt continues to show a significant **maturity wall** from 2024 to 2028, with a slight peak in 2025.

Chart 40
Outstanding debt by rating and maturity year
Peak in 2025



Note: Total outstanding amount of corporate bonds by rating and year of maturity, in EUR bn. NA includes issuance amounts for corporate bonds whose maturity date is not available.
Sources: Refinitiv Eikon, ESMA.

In the next five years, EEA firms are expected to repay more than half of the total outstanding amount of corporate bonds (EUR 9.6tn or 53 % of the total). Concerns about corporate debt sustainability remain significant, particularly for the more vulnerable high-yield segment, where the realisation of a slower-than-expected-recovery economic scenario could prove challenging for firms with high debt levels. Of the rated corporate debt maturing in the next five years, approximately EUR 1.2tn is in BBB-rated bonds and EUR 0.8tn in HY.

Increase in securitisation issuance

According to industry data[40], the issuance of **securitised products** rebounded in 2024. In 1Q24 about EUR 61bn was issued in placed and retained securitised products in Europe, up by more than 43 % as compared to 4Q23 (EUR 42bn), an increase of about 70% with respect to 1Q23 (EUR 36bn).

Within securitised products, **collateralised loan obligations** issuance in 1Q24 increased by 47% compared to 4Q23, reaching EUR 11.6bn. This dynamic mirrors that in other jurisdictions, such as the US.[41]

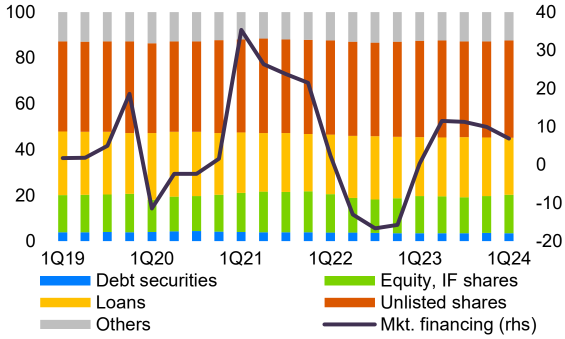
average amount issued per quarter has been EUR 5mn in 2024 compared with EUR 100mn, EUR 250mn and more than EUR 3bn in 2023, 2022 and 2021 respectively (source Refinitiv EIKON). See also AFME (2023): [Equity Primary Markets and Trading Report].

40 See also AFME (2024), [Securitisation Data Snapshot Q1 2024], April.

41 See also Financial Times (2024), '[Rise in non-bank lending could mean murkier view on risks]', February.

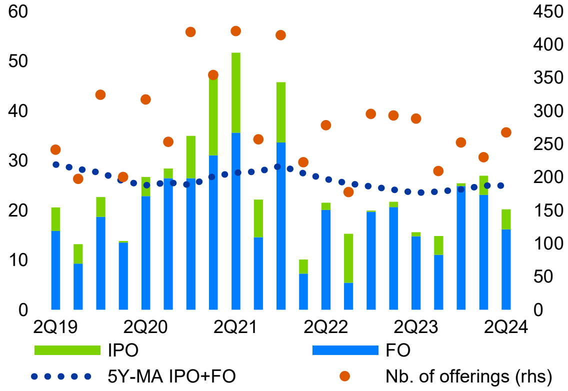
Key indicators

Chart 41
Market financing
Stable market financing availability



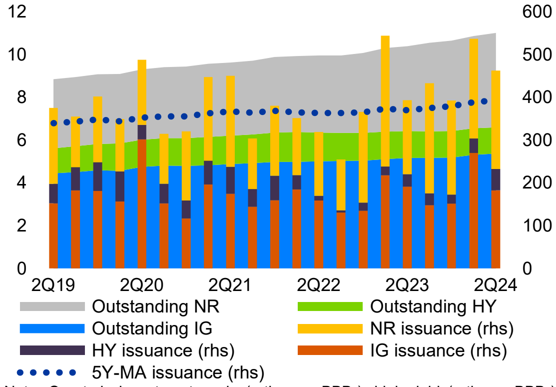
Note: Liabilities of EA non-financial corporations (NFC), by debt type as a share of total liabilities. Others include: financial derivatives and employee stock options; insurance, pensions and standardised guarantee schemes; trade credits and advances of NFC; other accounts receivable/payable. Mkt. financing (rhs)= annual growth rate in debt securities, equity and investment fund (IF) shares, in %.
Sources: ECB, ESMA.

Chart 42
Equity issuance
Increase in IPOs, follow-on issuance down



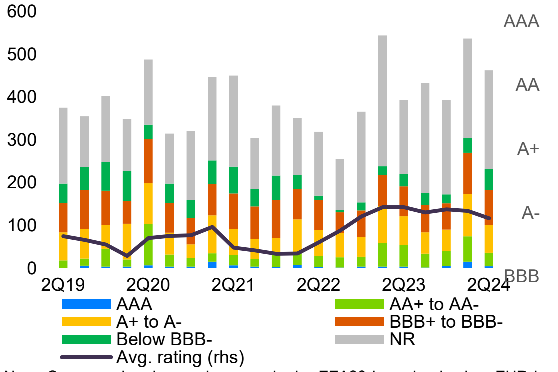
Note: Equity gross issuance in the EEA30 by type, EUR bn, and number of equity offerings. 5Y-MA=five-year moving average of the total value of equity offerings.

Chart 43
Corporate bond issuance and outstanding
Increasing outstanding debt



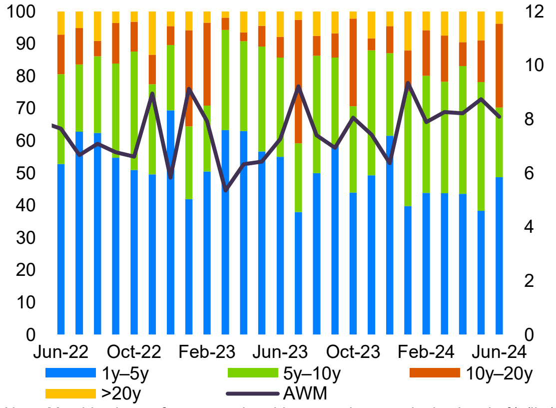
Note: Quarterly investment-grade (rating >= BBB-), high-yield (rating < BBB-) and non-rated corporate bond gross issuance in the EEA30 (rhs), EUR bn, and outstanding amounts, EUR tn. Maturities < 12 months are excluded.

Chart 44
Corporate bond issuance by rating class
Credit quality slightly below A -



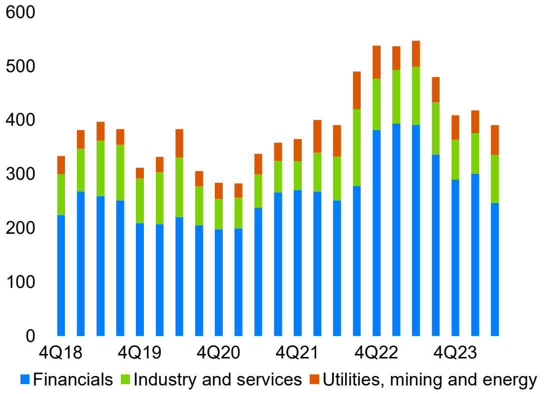
Note: Corporate bond gross issuance in the EEA30 by rating bucket, EUR bn. Avg. rating=weighted average rating computed as a one-year moving average of ratings converted to a numerical scale (AAA=1, AA+=2, etc.) excluding non-rated bonds. Maturities < 12 months are excluded.

Chart 45
Corporate bond issuance by maturity bucket
Issuance at longer maturities



Note: Monthly share of corporate bond issuance by maturity bucket, in % (lhs) and average weighted maturity at issuance (AWM), in years (rhs).

Chart 46
Short-term bond issuance by sector
Stable at sustained levels



Note:Short-term corporate debt gross issuance in the EEA30 by sector, EUR bn. Short-term=Maturities < 12 months.

Sustainable finance

Rocky road to financing the transition

The green transformation fundamentally depends on the ability to successfully transition various economic activities and infrastructures towards a more sustainable growth path, requiring significant public and private sector financing. To achieve the EU Green Deal objectives,[42] estimates suggest **investment needs** of EUR 1.6tn annually on average until 2030, 67% above the EUR 940bn currently invested.[43]

Over the last few years, the strong interest in and uptake of sustainable investments have been sending positive signals about investor willingness to finance the transition. This boded favourably for the EU's ambition to finance the necessary investments to transition to a low-carbon economy and deliver the EU Green Deal objectives.

However, several recent developments have sparked concerns about the ability to **mobilise private capital to finance the transition**. Growing political pressure, particularly in the US, has led the investment community to tread more cautiously with regard to ESG investments, also impacting the ability of climate-focused investors and activists to bring about change through shareholder engagement.[44] Recent elections in the EU and upcoming elections in the US introduce an additional degree of uncertainty regarding the climate policy agenda for the upcoming years.

Fears are also mounting concerning firms' abilities to adapt their business models and activities, with large firms coming under pressure for failing to make credible climate pledges.[45] Announcements by firms of **credible transition plans** could steer broader investor willingness to mobilise the necessary capital. In this context, the regulatory focus has shifted to what corporate *transition plans* should include to be considered credible. The Network for Greening the Financial System recently highlighted that key elements of a credible transition plan should comprise a stringent risk assessment based on forward-looking information and supporting data with clear targets. Furthermore, reliance on external reviewers can add an extra layer of independence and credibility and enable investors to assess the accuracy of firms' transition ambitions.[46] Transition plans could thus play an important role in establishing clear strategic priorities and identifying relevant information to collect internally.

The EU **Corporate Sustainable Reporting Directive** (CSRD) will strengthen transparency to investors by requiring corporates to disclose key aspects of transition plans, including on the allocated financial resources and future recourse to external financing. Assurance on sustainability reporting will underpin the credibility of these disclosures, which should help investors assess the expected future financial needs of entities based on their transition targets, while providing insight into potential exposure to transition risks.[47]

Role of ESG investing

Transition finance instruments can help channel investments to firms in transition. First, the number and size of funds tracking EU climate benchmarks – which can be used to construct portfolios with a decarbonisation objective – have been steadily growing over the last three years (to 182 funds with total assets worth EUR 156bn as of June 2024; Chart 47).

Other ESG instruments can also help bring capital to firms in transition. However, the uptake of ESG investing and the growth of ESG markets levelled off in 2023,[48] raising concerns about the ability of the financial sector to finance the transition.

[42] See European Commission (2019): The European Green Deal

[43] See Platform on Sustainable Finance (2024): Monitoring Capital Flows to Sustainable Investments: intermediate report, April.

[44] Financial Times (2023): The real impact of the ESG backlash, December.

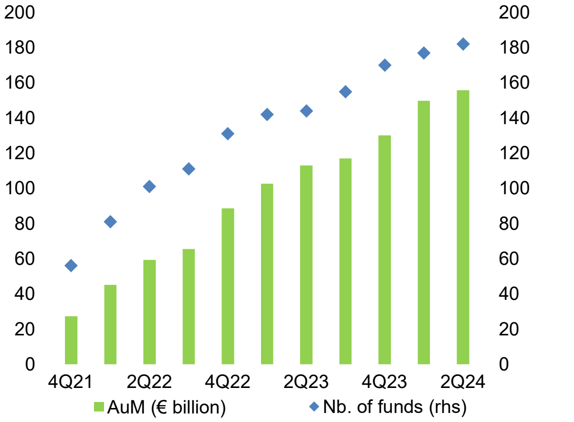
[45] See New Climate Institute (2024): Corporate Climate Responsibility Monitor 2024, April.

[46] For more details see NGFS (2024): Credible Transition Plans: The micro-prudential perspective, April.

[47] Relevant data points include for examples the qualitative assessment of locked-in greenhouse gas emissions or CapEx amounts invested in fossil fuel projects.

[48] For further details, see ESMA (2024), 'Trends Risks and Vulnerabilities Report, No. 1, 2024, February.

Chart 47
Funds tracking EU climate benchmarks
Continuous increase in fund assets



Note: Assets under Management (EUR billion) and number of EU equity and bond funds tracking EU climate benchmarks
Sources: Morningstar, ESMA.

The first months of 2024 showed signs of cautious optimism in **ESG debt markets**, where green bonds, in particular, enable issuers to raise capital that can serve transition purposes.[49] The EU ESG bond market reached a total outstanding value of EUR 2.1tn in June, up 17 % in one year (Chart 50). This was mainly driven by corporate green bond issuance in 1H24, which rose 19% from 1H23 to EUR 109bn.

Beyond debt instruments, firms can also leverage equity financing to achieve their transition objectives. However, while for use-of-proceeds bonds (such as green bonds) the proceeds allocation to green activities is made public through pre-issuance documents and is sometimes ring-fenced, the detailed allocation of money raised through equity financing is usually not public. Against this background, the **EU Taxonomy** – a classification system for sustainable economic activities – aims to bring capital to companies that need it the most on their transition journey. The Taxonomy has clarified the definition and measurement of green economic activities in Europe and is improving transparency by requiring firms to report their share of sustainable economic activities.

Some of the existing Taxonomy disclosure requirements provide relevant information on where firms stand on their transition journey. For example, differences between *Taxonomy-eligible* and *Taxonomy-aligned* revenues provide a sense of how green the activities of a firm already are. Similarly, Taxonomy-aligned capital expenditure provides relevant forward-looking information on green investments. However, this information is currently only available for a small set of (large) firms and it will take a few years for coverage to improve.

Transition funds for targeted investments

Investment products can further support the transition, either by providing financing to transitioning firms, or by pushing for changes through corporate engagement. However, since the end of 2023 the investor appetite for products with sustainability features levelled off. In 1H24, the sustainable finance disclosure regulation (SFDR) Article 9 funds, which have a sustainable investment objective, continued to face net outflows (EUR 9.4bn, -2.7% of AuM). SFDR Article 8 funds, which promote environmental or social characteristics, recorded net inflows of EUR 50bn (+0.8% of AuM) but this was after several consecutive quarters of outflows.

More recently, the concept of **transition-focused investment products** making targeted investments in transitioning firms or sectors has emerged. While there is no universally accepted definition for 'transition' funds, there are currently 136 EU funds that have a reference to 'transition' in their name.[50] These funds, including 70% disclosing under SFDR Article 8 and 22% disclosing under SFDR Article 9, managed assets worth EUR 39bn in June 2024. This compares with 872 funds using other environmental words in their name (e.g. 'green', 'low-carbon', etc.) managing EUR 260bn.

'Transition' funds have, on average, attracted net cumulative inflows of EUR 27mn over the last two years compared to EUR 14mn for 'green' funds (Chart 48). This highlights investor interest in these vehicles and confirms the signalling power of investment product names with a sustainability aspect.[51] In this context, the 80% minimum threshold for investments used to meet the funds' characteristic or objective and exclusions introduced by the **ESMA Guidelines on funds' names** using ESG or sustainability-related terms should further strengthen the credibility of these

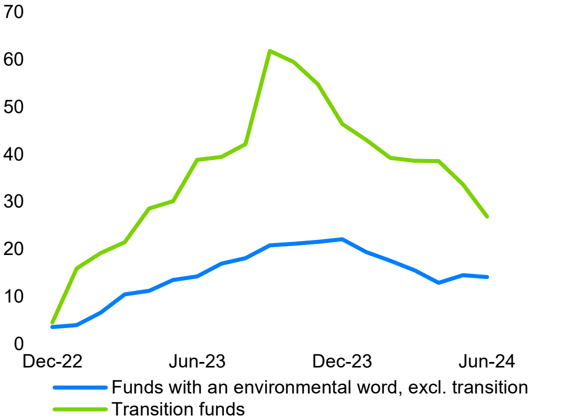
[49] See ESMA (2024), '[Trends, Risks and Vulnerabilities Report 1/24](), February.

[50] This also includes 9 funds tracking the EU Climate Transition Benchmark.

[51] See also ESMA (2024): [Trends, Risks and Vulnerabilities Report 1/24](), February, Sustainable Finance Section.

funds and help contribute to their uptake in the future.[52]

Chart 48
Funds cumulative average net flows
Transition funds attract higher flows

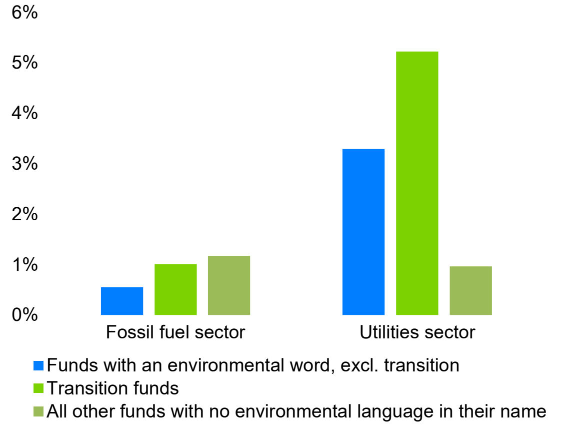


Note: Average cumulative net flows of transition funds and funds with an environmental reference in their name, excluding transition funds, in EUR million.
Sources: Morningstar, ESMA

Despite the absence of a clear framework or definition, a closer look at the **portfolio holdings of 'transition' funds** suggests a somewhat homogeneous investment approach, with the average similarity of these funds almost double that of 'green' funds.[53] This higher similarity reflects to some extent a considerably higher portfolio concentration, driven in part by a subset of securities issued by utilities sector firms[54] that are held by more than 15% of 'transition' funds. Given the role that utilities play in decarbonising electricity for the entire economy, this suggests that 'transition' fund strategies may be tilted towards sectors enabling the transition more broadly.

Another relevant feature of 'transition' funds is their **exposure to fossil-fuel-sector firms** compared with 'green' funds and funds with no environmental words in their names. Transition funds allocate 1% of their investments to fossil-fuel sector firms, twice the proportion observed in 'green' funds, and a comparable level of exposure to that of other funds without environmental language in their names (Chart 49). Fossil fuel companies will need to undergo significant transformation on the path to carbon neutrality and 'transition' funds can support these efforts by channelling financing towards firms with credible transition plans.

Chart 49
Portfolio exposure to fossil fuel and utility sectors
Higher exposure for transition-focused funds



Note: Investments in firms operating in the fossil fuel or utilities sector as relative share of total Market Value.
Sources: Morningstar, ESMA

In line with this, the fossil-fuel related exposure of 'transition' funds mainly stems from firms rated by ESG rating providers as environmental leaders within their sector, and with the potential to contribute to the EU's environmental objectives. Indeed, 30% of the fossil-fuel investments of these funds are concentrated in two firms with more than 25% of EU Taxonomy-eligible revenues (i.e. revenues from economic activities that have the potential to become green). In contrast, funds without any environmental words in their name have a third of their investments allocated to just three fossil fuel sector firms with less than 10% of EU Taxonomy-eligible revenues. Finally, 'transition' funds display **high investments in green bonds** issued by fossil-fuel and utilities-sector firms (one fifth of their total holdings of green bonds), supporting the view that these investment products provide financing to 'brown' firms seeking to become greener.

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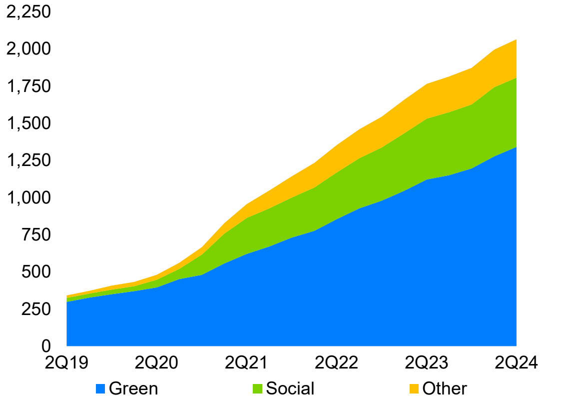
52 See https://www.esma.europa.eu/press-news/esma-news/esma-guidelines-establish-harmonised-criteria-use-esg-and-sustainability-terms.

53 We used the Jaccard similarity, calculated as the share of instruments common to two funds divided by the count of distinct instruments held by these. See da Fontoura Costa (2021): Further Generalizations of the Jaccard Index.

54 To identify utilities and fossil fuel related companies, the analysis employs the Climate Policy Relevant Sectors (CPRS) classification (Battiston et al., 2017) based on the 4-digit NACE sector codes from Refinitiv Eikon.

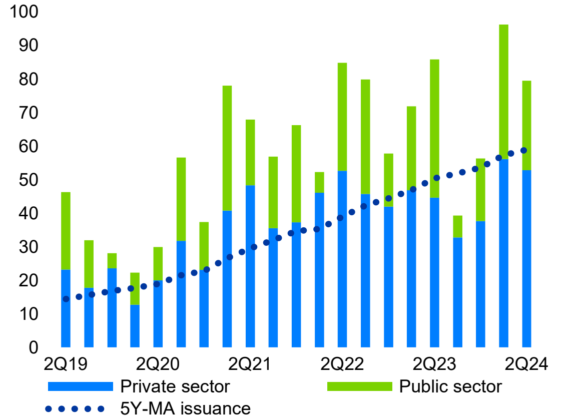
Key indicators

Chart 50
EU ESG bonds outstanding
Market growth picked up in 1H24



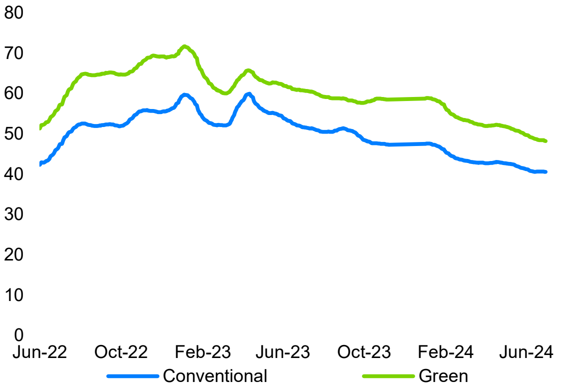
Note: Total amount of ESG bonds outstanding issued by EEA30-domiciled issuers, EUR bn.
Sources: Refinitiv EIKON, ESMA.

Chart 51
Green bond quarterly issuance
Record green bond issuances in 1Q24



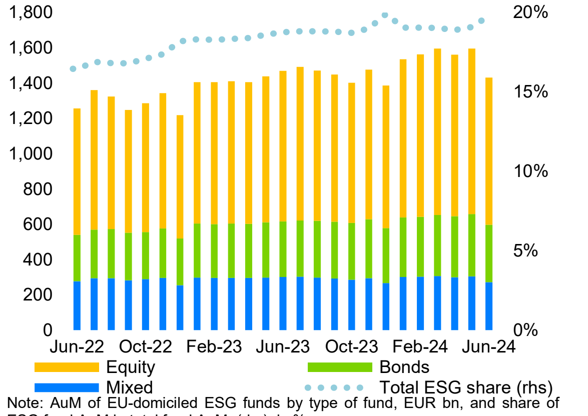
Note: Green bond gross issuance in the EEA30 by sector, EUR bn.
Sources: Refinitiv EIKON, ESMA.

Chart 52
Corporate green bond and conventional bond liquidity
Bid-ask spreads decline steadily



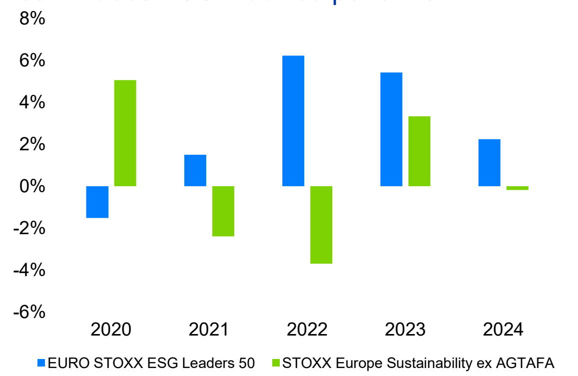
Note: One-month moving average of the bid-ask spread of green and conventional bonds from green bond issuers included in the Markit iBoxx EUR Corporate bond index, in bps.
Sources: IHS Markit, ESMA.

Chart 53
ESG fund assets
ESG fund AuM and market share stable



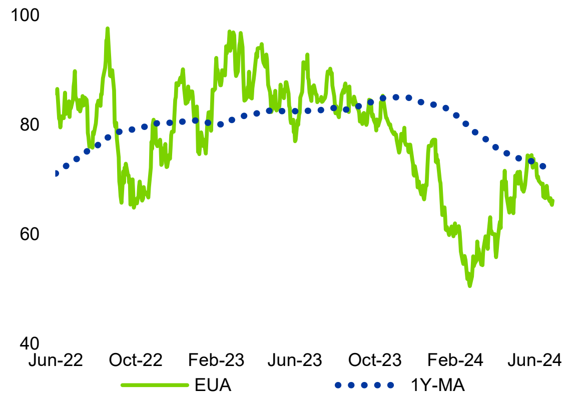
Note: AuM of EU-domiciled ESG funds by type of fund, EUR bn, and share of ESG fund AuM in total fund AuM (rhs), in %.
Sources: Morningstar, Refinitiv Lipper, ESMA.

Chart 54
ESG vs. broad market index performance
Best-in-class ESG index outperforms



Note: Annual returns of the STOXX ESG Leaders 50 index (best-in-class strategy) and STOXX Europe Sustainability excl. Alcohol, Gambling, Tobacco, Armaments & Firearms, and Adult Entertainment (AGTAFA, positive screening and exclusion-based strategy) measured as relative difference to the STOXX Europe 600, in percentage points. 2024 data as of 31 June.
Sources:Refinitiv Datastream, ESMA.

Chart 55
Emission allowance prices
Carbon prices partially recovered in 2Q24



Note: Daily settlement price of European Emission Allowances (EUA) on European Energy Exchange spot market, in EUR/tCO2.

Financial innovation

Crypto rally continues, concentration prevails

Crypto-assets markets continued to rally in 2024, reaching a **total market capitalisation of EUR 2.2tn** in June (Charts 59 and 60). The bullish trend was largely fuelled by the approval of 11 spot Bitcoin ETPs by the U.S. Securities and Exchange Commission (SEC) in January (Textbox 7) and by the Bitcoin halving in April (Textbox 8). **Bitcoin attained a new all-time high of EUR 67,000** in March (200% year-on-year growth), consolidating its dominant position (53% of total crypto-asset markets capitalisation as of the end of June, up from 48% in January). However, the August shift in sentiment from US macroeconomic indicators led to volatility and sizeable falls in crypto-asset valuations.

Trading volumes have continued to recover since the so-called 'crypto-winter' of 2022-23, with a peak at EUR 2.5bn in March 2024 (Chart 63). This, however, is still less than half of the historical high of May 2021. Binance, the largest crypto exchange by spot trading volumes, regained some of its lost market share, although at 44% it remains below its peak of 60% in February 2023 (Chart 64).

Stablecoins grew as well to reach a total market valuation of EUR 150bn in June 2024, up from EUR 118bn as of the end of 2023. Tether continues to dominate by far, accounting for 70% of the total stablecoin size (Chart 61). While the change in market sentiment in August led to volatility, stablecoins maintained their peg.

The total value locked (TVL) in Decentralised Finance (DeFi) protocols increased from EUR 55bn in January to over EUR 90bn as of June 2024, suggesting a sustained interest in decentralised finance. At the same time, DeFi scams and exploits remain elevated, with an estimated EUR 450mn being lost since January (of this, only an estimated 8% has been recovered)[55].

Looking at the composition of fiat-to-crypto transactions as a proxy for investors' geography, we find that the share of **euro-denominated transactions** is rather low and constant, close to 10% of the total, to be compared with 45-50% for US dollar-denominated transactions, suggesting that European investors' appetite for crypto-assets is lower.

Textbox 7

Effects of the SEC decision on crypto-ETFs

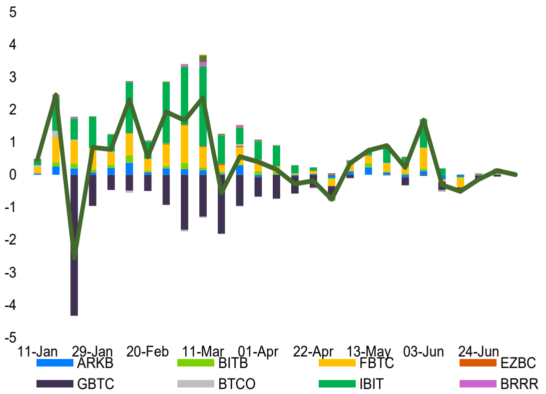
On 10 January 2024, the SEC approved the listing and trading of 11 spot Bitcoin exchange-traded products (ETPs)[56], commonly referred to as 'spot Bitcoin ETFs', though they do not formally qualify as such. The SEC had previously rejected applications for such products arguing that the underlying market was vulnerable to fraud and market manipulation. However, Grayscale's court victory in 2023 compelled a change in the SEC's stance.

As of end-June 2024, these ETPs had attracted net inflows of EUR 13.2bn (Chart 56). Spot Ether ETPs also started trading recently, after their final approval by the SEC on 22 July 2024. Applications have also been filed with the SEC for two Solana-based ETPs.

While the 11 spot Bitcoin ETPs remain relatively small in size at this point, with a combined NAV of EUR 46.5bn (less than 1% of the global ETF market), the development of such ETPs and of investment products providing exposure to cypto-assets more generally requires monitoring. Indeed, they create growing interlinkages between crypto and traditional markets and in turn increase the risk of negative spillover effects

Overall, these developments have also had the effect of renewing investor interest in crypto-assets and contributed to the prolonged surge in their valuations.

Chart 56
Bitcoin ETFs net flows
Bitcoin ETFs attract a net inflow of EUR 13.2bn



Note: Estimaned net flows, split by ETF and overall, in EUR billions.
Sources: ESMA, EIKON.

In the EEA, **investment products providing exposure to crypto-assets** remain small in size.

[55] See the Rekt Database, available at https://de.fi/rekt-database, and https://www.ccn.com/education/crypto/crypto-hacks-exploits-full-list-scams-vulnerabilities/

[56] Futures-based Bitcoin ETFs – ETFs using futures to build exposure to Bitcoin – already existed but faced criticism from investors for often deviating from Bitcoin's price. Contrary to futures-based Bitcoin ETFs, spot Bitcoin ETPs hold Bitcoin directly.

ESMA identified 77 EEA investment funds as providing exposure to crypto-assets as of March 2024. These funds had a combined NAV estimated at EUR 2bn to EUR 4bn and represented a small fraction (0.02% in size) of the total EU fund universe. In addition, ESMA identified more than 100 ETPs with crypto-assets as underlying listed in the EEA, but these products are relatively small as well, with a combined value of around EUR 8bn as of February 2024. Available regulatory reporting data also show limited activity in relation to crypto derivatives in the EEA, with an outstanding notional amount of EUR 1.9bn as of March 2024. However, the above figures need to be considered with caution, as crypto-assets activities remain largely unregulated in the EU, pending **full implementation of MICA**.

Textbox 8

Bitcoin halving

Bitcoin halving is a process built into Bitcoin's code that automatically and predictably halves the reward paid for verifying, validating, and adding a new transaction block to the Bitcoin blockchain. This reduces the rate of new Bitcoin coming into circulation, with a view to warding off its devaluation.

Naturally, halving the reward for creating new blocks reduces Bitcoin miners' ability to generate profits and in turn incentivises them to increase transaction fees.

There have been four 'halvings' so far, the latest one having occurred on 19 April 2024. It should be noted that each of these halvings translated into an important mediatic event, fuelling a frenzy of interest around Bitcoin and crypto-assets in general. While the first two halvings were followed by a prolonged surge in Bitcoin price, the latter two were not. One explanation would be that, as investors become more familiar with the dynamics of the crypto market, the media interest sparked by these events is increasingly factored-in prior to the event occurring. In this regard, some view the latest halving as one of the main drivers for Bitcoin's price peak in March.

ESMA's risk assessment framework scores crypto-assets along six dimensions, assigning a current risk level and a related medium-term risk outlook to each (Table 1). The risk scores remain unchanged from 2H23. Liquidity risk, market risk, internal contagion risk, and operational risk are of 'highest' concern. Credit risk is 'moderate', while external contagion risk to the wider financial system continues to remain 'low', mainly due to crypto-assets' relatively small market size and limited interlinkages with traditional markets. However, in this regard, the increasing interest in crypto-assets from institutional investors has the potential to increase external contagion risk further.

Table 1

ESMA framework for crypto-asset risks
Medium-high risk with stable outlook

	Level	Outlook
Liquidity	■ (red)	→
Market	■ (red)	→
Credit	■ (yellow)	↗
Contagion (internal)	■ (red)	→
Contagion (external)	■ (green)	↑
Operational	■ (red)	→

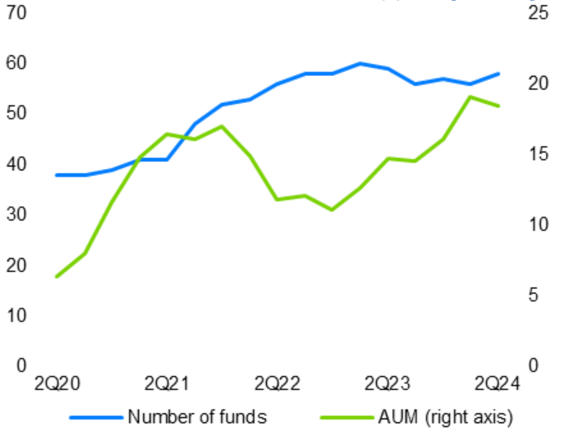
Note: Colours indicate current risk intensity. Coding: green = potential risk; yellow = elevated risk; orange = high risk; red = very high risk. Upward-pointing arrows = increase in risk intensity; downward-pointing arrows = decrease in risk intensity; horizontal arrows = no change foreseen. The outlook refers to the forthcoming half year. The ESMA risk assessment is based on quantitative indicators and analysts' judgement.
Sources: ESMA.

Mixed success of AI-branded funds

According to a recent study, the vast majority of asset managers globally use or plan to use **artificial intelligence** (AI), though primarily to augment existing capabilities, while few rely or plan to rely on fully automated AI or machine learning models.[57] ESMA is monitoring how these trends are reflected in the investment products on offer in the EU. The number of EU investment funds that mention AI or related terms in their name – making this theme central to their selling proposition – saw steady growth until early 2023, to 60 such products, but has since stabilised, according to an ESMA analysis of 47,600 existing and past open-end and exchange-traded funds (Chart 57).

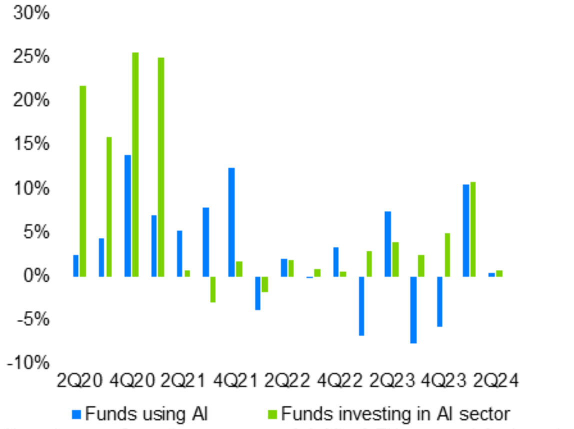
57 See Mercer (2024), AI in investment management survey 2024.

Chart 57
Investment funds with AI-related name
Number of AI-branded funds stopped growing



Note: Number and AuM (EUR bn) of EU open-end funds and exchange-traded funds that mention AI or machine learning in their name.
Sources: Morningstar Direct, ESMA

Chart 58
Investment funds with AI-related name
Funds investing in AI sector attract inflows



Note: Investor flows (in percentage of AuM) of EU open-end funds and exchange-traded funds that mention AI or machine learning in their name.
Sources: Morningstar Direct, ESMA

In addition, just over half of the AI-branded funds report that the technology is central to steering their investment process (e.g. as part of quantitative investment models), while the rest described the AI industry sector as their key investment focus.[58] However, the funds that invest in the AI sector account for the bulk of AuM in this sample, at EUR 18bn, as compared to only EUR 1bn for funds that use their name to promote their use of AI. In light of these findings and upon further inspection of funds' regulatory and marketing documents, "AI-washing" (i.e., the practice of exaggerating the amount of AI technology a company uses in its products) does not currently appear widespread in this market.[59]

Funds that promote the use of AI in their name have in fact had **mixed success among investors**, experiencing net outflows over three of the last six quarters (Chart 58), notwithstanding speculations around the potential gains for investment managers from using AI.[60] Conversely, **AI-sector-focused funds have consistently attracted inflows** over the same period, likely enabled by the current wave of investor enthusiasm for AI companies.

Quantum computing: Thinking ahead

While AI is in the process of reshaping many processes in the financial industry, **quantum computing** (QC) is emerging as a new and potentially even more far-reaching technological advance: based on fundamental physics to solve computational tasks, QC could multiply processing and problem-solving capacities in future years, even if the current state of technological advance is understood to be experimental and impractical.

Globally, the **financial services industry's spending on QC capabilities** is expected to grow from USD 80mn in 2022 to USD 19bn in 2032.[61] Although viable quantum computers are not expected to be available before 2030[62], the technology has the potential to revolutionise the financial system, allowing for more complex financial modelling, risk analysis, and optimisation algorithms to be run much faster than with classical computers.

However, quantum computing could pose a **serious threat to cybersecurity**, due to its capacity to break current cryptographic protocols

[58] For a review of funds that declare using AI in their investment process as of end-2022 see ESMA (2023), Artificial intelligence in EU securities markets, TRV Risk Analysis.

[59] However, in the US, the SEC charged two investment advisers with malpractice amounting to AI-washing. See SEC (2024), SEC Charges Two Investment Advisers with Making False and Misleading Statements About Their Use of Artificial Intelligence, March.

[60] Financial Times (2024), How Gen AI will change asset management, February.

[61] Deloitte (2023), Industry spending on quantum computing will rise dramatically. Will it pay off?, July.

[62] MIT Sloan (2024), Quantum computing: What leaders need to know now, January.

that secure financial transactions and data, potentially leading to widespread security breaches and financial instability.

In April 2024, the European Commission recommended that Member States develop a comprehensive strategy for the adoption of **post-quantum cryptography** (PQC), i.e., quantum-resistant encryption methods that will have to be deployed to secure data and transactions.[63] Initiatives to address the transition to PQC across the financial sector are already underway.[64]

[63] European Commission (2024), Recommendation on a Coordinated Implementation Roadmap for the transition to Post-Quantum Cryptography, April.

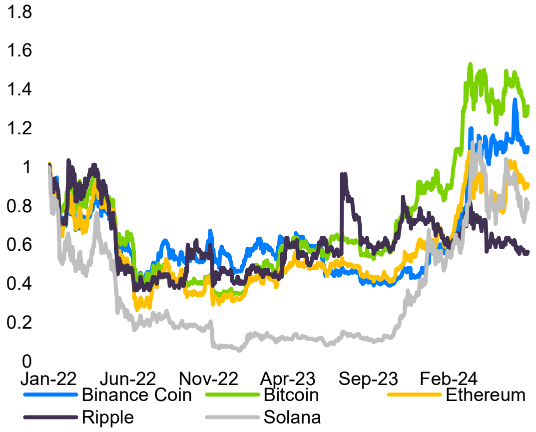
[64] See e.g. WEF (2024), Quantum Security for the Financial Sector: Informing Global Regulatory Approaches, January; Europol (2024), Quantum Safe Financial Forum, May.

Key indicators

Chart 59

Crypto-assets prices

Upward trend with variations across assets

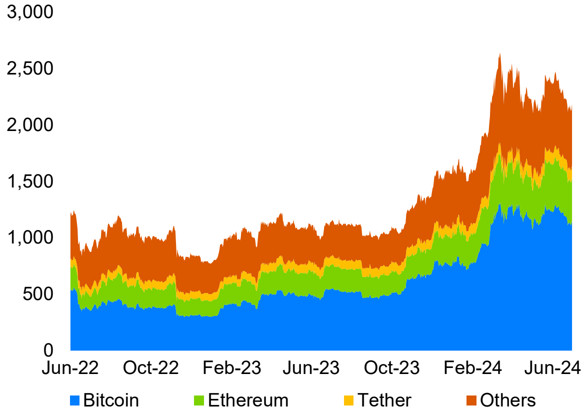


Note: price in USD for major crypto-assets (base Jan 2022 = 1)
Sources: Kaiko, ESMA

Chart 60

Crypto-assets market capitalisation

Bitcoin alone exceeds 50% of total

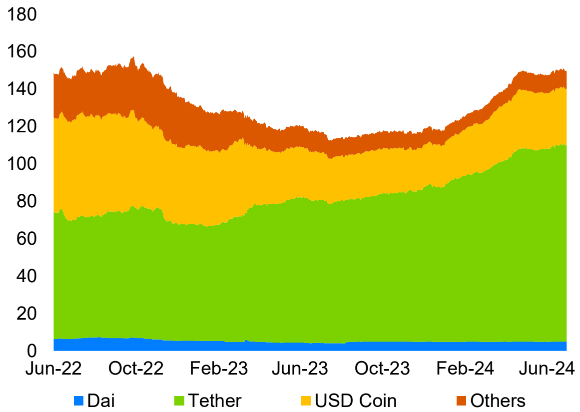


Note: Market capitalisation of Bitcoin, Ethereum, Tether and other crypto-assets, in EUR bn.
Sources: CoinMarketCap, ESMA.

Chart 61

Stablecoins market capitalisation

Tether's dominance increases further

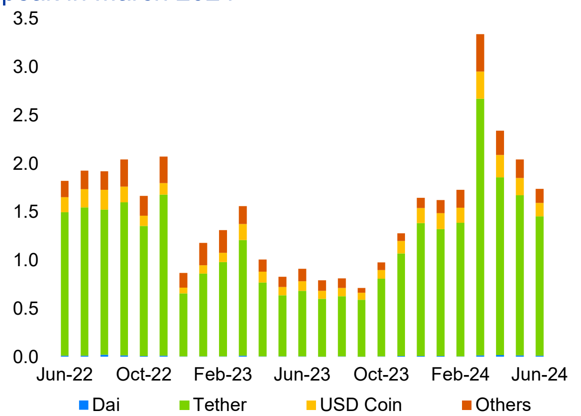


Note: Market capitalisation of Dai, Tether, USD Coin and other stablecoins, in EUR bn.
Sources: CoinMarketCap, ESMA.

Chart 62

Trading volume by stablecoin

Trading volume recovering since October 2023, peak in March 2024

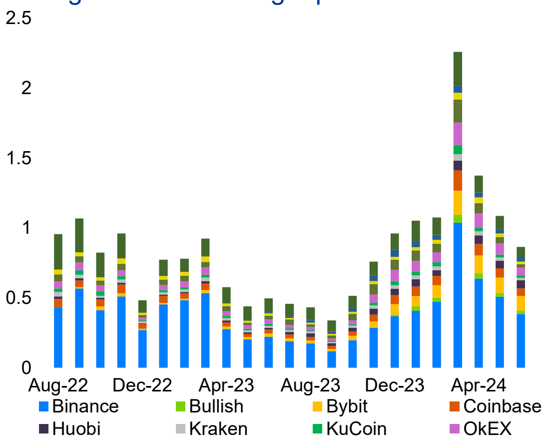


Note: Trading volumes of Binance USD, Tether, USD Coin and other stablecoins, in EUR tn.
Sources: CoinMarketCap, ESMA.

Chart 63

Trading volume by exchange (absolute)

Trading volume reaching a peak in March 2024

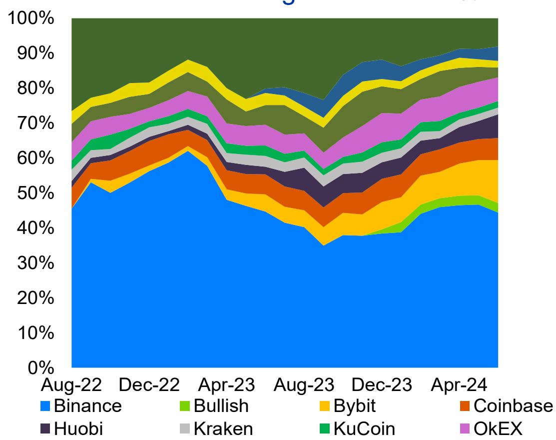


Note: Monthly traded volume per exchange (EUR tn)
Sources: Kaiko, ESMA

Chart 64

Trading volume by exchange (relative)

Binance' share of trading volume at 44%



Note: Share of monthly traded volume per exchange
Sources: Kaiko, ESMA

Annexes

TRV Statistical Annex

In addition to the statistics presented in the risk monitoring and risk analysis sections, we provide extensive and up-to-date charts and tables with key data on the markets under ESMA's remit in the TRV Statistical Annex, which is published jointly with the TRV and can be accessed on ESMA's website (https://www.esma.europa.eu/esmas-activities/risk-analysis/risk-monitoring).

List of abbreviations

1H(Q)23	first half (quarter) of 2023
1Y-MA	1-year moving average
2H(Q)22	second half (quarter) of 2023
ABS	asset-backed securities
AI	artificial intelligence
AIF	alternative Investment Fund
AIFMD	Alternative Investment Fund Managers directive
AuM	assets under management
BTC	bitcoin
BF	Bond fund
bp	basis point
CBI	Central Bank of Ireland
CCP	central counterparty
CDO	collateralised debt obligation
CDS	credit default swap
CFD	contract for differences
CISS	composite indicator of systemic stress
CLO	collateralised loan obligation
CNAV	constant net asset value
CMBS	commercial mortgage-backed security
CRA	credit rating agency
CRE	commercial real estate
CSD	central securities depository
DeFi	decentralised finance
DLT	distributed ledger technology
EA	euro area
ECB	European Central Bank
EEA	European Economic Area
ESG	environmental, social and governance
ESMA	European Securities and Markets Authority
ESRB	European Systemic Risk Board
ETD	exchange-traded derivative
ETF	Exchange-traded fund
ETH	Ether
ETP	exchange-traded product
EU	European Union
GDP	gross domestic product
GFC	Global Financial Crisis
HY	high yield
IG	investment grade
IMF	International Monetary Fund
IPO	initial public offering
LDI	liability-driven investment
LVNAV	Low volatility net asset value
MCM	market correction mechanism
ML	machine learning
MMF	money market fund
NAV	net asset value
NCA	national competent authority
NFC	non-financial corporation
OTC	over the counter
PE	price-to-earnings

pp	percentage point
RE	real estate
rhs	right hand side axis
RMBS	residential mortgage-backed security
RRE	residential real estate
SEC	Securities and Exchange Commission
SFDR	sustainable finance disclosure regulation
SMEs	small and medium-sized enterprises
UCITS	undertakings for collective investment in transferable securities
VNAV	variable net asset value
WAL	weighted average life
WAM	weighted average maturity
YTD	year to date

Currencies and countries abbreviated in accordance with ISO standards.

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