

# **TRV Risk Monitor**

ESMA Report on Trends, Risks and Vulnerabilities No. 2, 2025



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# **Executive summary**

#### Risk summary and outlook

Following escalating trade conflicts and persistent geopolitical uncertainties, markets in ESMA's remit experienced high volatility in the first four months of 2025 but demonstrated resilience throughout 1H25. Overall, risks persist at high or very high levels. Policy uncertainty materialised in March and April 2025 with the US administration's tariff announcements, but also through the change in stance of German fiscal policy. Short-term market movements were historically large, with sharp equity drawdowns and credit spread spikes, followed by a swift rebound in valuations amid sustained high volatility. Going forward, the impact of tariffs raises concerns of market corrections, weaker economic outlook and inflationary pressures. Persistently elevated equity and crypto-asset valuations amplify the risk of market corrections, especially under very high market reactivity. Risks are compounded by the increased likelihood of technological disruptions, particularly from cyber and hybrid threats. Amid volatile investor confidence, retail and institutional investors should remain alert to potential sharp market corrections and ensure sufficient resilience to liquidity shortages.

#### Key risk drivers

Previous Current Risk drivers risk level risk level Outlook Geopolitical and peripheral risks: The materialisation of geopolitical 7 uncertainties and global trade conflicts increase fragmentation risk, and is a trigger for event risk and large, sudden and potentially lasting price movements. The ability of the EU and its member states to respond effectively and in unison to political challenges is decisive for containing market uncertainty. Uncertainty from a fundamental shift of the macroeconomic context: The  $\rightarrow$ EU's economic performance provides an uncertain backdrop for EU financial markets, esp. given the uncertain economic impact of tariffs. Rising public and private debt is set to increase debt servicing, which will continue to weigh on issuers. Persisting elevated market valuations in equities and crypto assets intensify risks of drastic market corrections in a context of increasing market reactivity and volatility. Operational and technology disruptions: Rising cyber and hybrid threats 7 increase risks of technological disruptions, including in financial sectors, with associated risks of market reactions. Recent incidents, such as the electricity blackout in the Iberian Peninsula and the T2S outage in 1Q25, highlight operational vulnerabilities exacerbated by concentrated dependencies on information technology provided by relatively few firms. Green transition risks: Delays to green transition efforts could raise  $\rightarrow$ financial stability and investor protection risks through growing climate physical risks and reduced information availability on firms' vulnerabilities and adaptation needs. Greenwashing and related malpractices further risk undermining investor trust. Exposures to behavioural biases in investing: Investors, especially those less sophisticated with limited financial knowledge or resources, are at risk of making poor trading decisions due to information overload or misinformation, a phenomenon particularly pronounced with social media, digital trading apps, and potential gamification elements, which may encourage herd mentality and social contagion among investors.

Note: Summary of key drivers of risks in financial markets under ESMA's remit. The summary is not a complete list and can change over time.

#### Market monitoring

Markets: EU equity market performance over the last months was characterised by high volatility, at levels not seen since the COVID-19 related market stress. Equity valuations saw sharp falls and fast recovery in April related to the US tariff announcements. Overall, EU market performance as of end-June stands at +11 % since the beginning of the year, amid significant sectoral heterogeneity. In fixed income markets, escalating trade tensions led to a significant widening of corporate bond spreads in early April, particularly in the high-yield (HY) segment. Market metrics of credit quality worsened in April with the geopolitical developments, and Moody's downgraded the US to Aa1 in May. Despite a 10 % drop in valuation in 1H25, crypto markets remain near their historical peak volume at EUR 3tn. The US administration's approach to crypto-assets has boosted investor sentiment. However, there are growing concerns that potential conflicts of interest may add to existing issues related to governance, credibility, and money laundering in these markets.

Asset management: In 1H25, EU funds experienced their highest episode of volatility since the COVID-19 outbreak but exhibited positive performance amid muted flows. While funds have been overall resilient, leverage and liquidity risks persist in parts of the sector. In the real-estate fund sector, market prices seem to have bottomed out, but real-estate funds continued to experience sustained outflows in some jurisdictions. In this context, ESMA and the IMF performed a stress test showing the resilience of funds to a market shock but potential spillovers to the underlying bond markets.

Consumers: Confidence around future market conditions rebounded following a sharp dip in April, supported by the continued improvement of the aggregate financial position of households. In 1H25, consumers maintained a strong demand for bond funds, alongside a marked increase in equities and ETFs as seen through retail transactions. The demographic profile of consumers suggests that older investors have a higher share of fixed income investments in their portfolios. Overall, consumer complaint levels remained steady.

Infrastructures and services: Cyber risks continued to rise globally amid ongoing geopolitical tensions. In addition, operation vulnerabilities were exposed through recent incidents, such as the blackout in the Iberian Peninsula and the T2S outage in 1Q25, even though they did not lead to systemic impacts. Equity-trading volumes increased significantly in 1H25 (+23 % year-on-year), with March seeing record-high activity.

#### Structural developments

Market-based finance: The financing of European corporates via equity markets slowed toward the end of 2024 and remained muted in 1H25. Despite expectations of a recovery in 2025, the EU initial public offering (IPO) activity has remained subdued. Corporate bond issuance remained stable at historically high levels, with significant amounts of debt due to mature over the next five years. Corporate debt sustainability remains a concern, as highlighted by the recent widening of spreads particularly in the HY segment.

Sustainable finance: Despite shifting policy perception, record climate extremes are adding pressure to the global low-carbon transition. While EU ESG funds saw small net outflows in 1Q25, demand for ESG fixed-income strategies remains strong. Continued growth in the ESG bond market and robust green bond issuance reflect sustained investor appetite. Meanwhile, new ESMA guidelines on ESG fund naming are driving greater alignment between fund names and investments, contributing to market integrity and reduced greenwashing risks.

Financial innovation: Tokenisation has had limited adoption so far, but tokenised funds have seen some uptake recently. The impacts and risks of tokenisation on markets still need to be fully understood. Asset managers' bets on the AI theme have continued into 1H25 with the launch of new AI-sector investment funds. Though still limited in deployment, agentic AI poses supervisory challenges around accountability, explainability, misalignment, and systemic risks — intensified by social media and multi-agent interactions.

#### Risk categories

Category

Liquidity risks

Market risks

Credit risks

Contagion risks

Operational risks

Environmental risks

### Market segments

#### Markets

Risks

- Geopolitical risks and economic policy uncertainty at historically high levels; high likelihood of market reactions and increased volatility
- Uncertainty around global monetary policy, especially with potential inflationary or even stagflationary pressures from trade policies
- High equity valuations increase the risk of disproportionate reactions to unexpected events given ongoing market nervousness
- Changing macro conditions raise the risk of abrupt debt repricing
- Growing connections between crypto and traditional markets, including in relation to stablecoins, warrant monitoring in the absence of relevant regulatory safeguards at a global level

#### Asset management

Risks

- Continued strong exposure to the US equity market raises concerns around market risk as the US market shows strong reactivity to events
- Shocks affecting both asset liquidity and liquidity demands could challenge funds exposed to liquidity mismatches
- Increased leverage in AIFs, including offshore hedge funds with concentrated positions in EU sovereign bond markets
- Delayed impact of monetary policy tightening, especially in sectors exposed to unrealised losses such as real estate

#### Consumers

Risks

- Aggressive marketing, especially of higher-risk products and crypto-assets
- Digitalisation, including gamified interfaces and emerging use of AI tools for client services
- Lack of consumer proficiency in social-media-driven trading
- Limited ESG investing literacy
- Risks related to cost-inefficient investment products

#### Infrastructures and services

Risks

- Cyber risks continue to grow globally amid geopolitical tensions
- Ongoing significant operational risk to infrastructures (e.g. the T2S outage underlined vulnerabilities), including from increasing digitalisation, the use of cloud services in core production processes and third-country dependencies
- High reactivity to market events raises risks of margin breaches and trade disruptions, such as increases in settlement fails

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 <a href="ESMA Risk Analysis webpage">ESMA Risk Analysis webpage</a>.

Securities markets, infrastructures and services	
<ul> <li>Measurement and modelling of cyber risk</li> <li>Real estate markets – Risk exposures in EU securities markets and investment funds</li> </ul>	<u>Link</u> <u>Link</u>
Asset management	
<ul> <li>Annual risk assessment of leveraged AIFs in the EU – 2024</li> <li>Risks in UCITS using the absolute Value-at-Risk approach</li> </ul>	<u>Link</u> <u>Link</u>
Consumers	
<ul><li>The scale factor: Impact of size on EU fund cost structures</li><li>Social media sentiment: Influence on EU equity prices</li></ul>	<u>Link</u> <u>Link</u>
Sustainable finance	
<ul> <li>Fund names: ESG-related changes and their impact on investment flows</li> <li>Assessing portfolio exposures to climate physical risks</li> </ul>	<u>Link</u> <u>Link</u>
Financial innovation	
<ul> <li>Maximum Extractable Value - implications for crypto markets</li> <li>Artificial intelligence in EU investment funds: adoption, strategies and portfolio exposures</li> </ul>	<u>Link</u> <u>Link</u>
<ul> <li>Neo-brokers in the EU: developments, benefits and risks</li> <li>Crypto assets: Market structures and EU relevance</li> </ul>	<u>Link</u> <u>Link</u>
ESMA Market Reports	
<ul> <li>Costs and performance of EU retail investment products 2024</li> <li>EU Carbon Markets 2024</li> <li>EU Prospectuses 2024</li> <li>EU Crowdfunding 2024</li> </ul>	Link Link Link Link

# Risk monitoring

# Market environment

As a result of the changes in trade policies initiated by the United States, EU and global markets experienced increased volatility and sharp price changes (Textbox 1). Concerns over a global trade appear to be receding, as the US has entered into preliminary trade agreements, including with the EU in late July. Nonetheless, the rise in US tariffs is expected to reduce global trade flows and fragment supply chains. These are likely to dampen economic growth, raise inflationary pressures, and put downward pressure on asset prices. Export-oriented firms and countries will face higher tariffs and risks associated with the transition to a new, more fragmented global framework. Financial market tensions and continuing geopolitical uncertainties (Chart 5) have also been weighing on business investment and are likely to further constrain EU growth by reducing exports, investment, and consumption.

Macro-financial conditions improved in late 2024, supported by monetary easing and a historically low EU unemployment rate. However, the current outlook is more pessimistic and clouded by policy and economic uncertainty (Chart 1). The European Commission's latest real GDP growth forecast for the EU was revised down to 1.1 % for 2025 from the 1.5 % of the 2024 autumn forecast, with a lower 1.5 % growth forecast for 2026 as well (from 1.8 %). Similarly, the IMF lowered its global growth forecast for 2025 to 2.8 % (from 3.2 %), with 3.0 % for 2026.1

Inflation in the EU continued to decline in 1H25, especially in the Euro Area. The European Commission lowered its EU inflation estimates and forecasts to 2.3 % for 2025 (down 0.1 pps) and 1.9 % for 2026 (down 0.1 pps). Energy and services have become the primary drivers of falling inflation. While inflation is expected to return to its target in 2026, the deterioration of growth outlook and the rapidly evolving global trade conditions are adding more uncertainty to the inflation outlook.

Interest rates were cut further by the ECB in January, March, April and June 25 (25 bps each, following four similar rate cuts in 2H24), keeping rates stable in July. Rate cuts in the US are

signalled for later in the year, pending greater clarity on trade policy and inflation dynamics. However, given the level of policy uncertainty and its potential impact on prices and employment, the extent and timing of future rate cuts remain to be seen.

Global financial conditions have eased since the rate cuts, with lower lending rates supporting a gradual rise in loan volumes. However, increased uncertainty is reflected in credit standards, which tightened in 1Q25 for loans to firms and consumer loans, driven by higher perceived risks.<sup>2</sup>

Global climate risks increased, with temperature deviations from the pre-industrial era averaging 1.18 degrees Celsius over the last twelve months (Chart A.8).<sup>3</sup> Rising temperatures increase the frequency and severity of climate-related physical hazards, with irreversible changes if tipping points are crossed, with potential severe economic and financial implications for the operations of firms and markets.

Global asset prices were heavily impacted by geo-political events. Following the US tariffs announcement and its subsequent suspension in April, most equity indices experienced a sharp decline followed by a strong rebound amid heightened volatility, the sharpest repricing of financial assets since the pandemic (Chart 2 and 4). As losses have been recovered, global equity valuations remain elevated in June 2025. In the current context, sudden adverse events or external shocks can spread rapidly, leading to heightened market reactivity and a surge in risk aversion. The sensitiveness of markets to news flow has been demonstrated by the impact of a false post on social media about a potential pause in US tariffs, which triggered massive swings in stock markets in April (see Textbox 1 for more detail).

Commodity prices were highly volatile at the beginning of 2025 (Chart 2), particularly for energy. Oil prices declined on renewed concerns over a persistent global supply glut. Natural gas prices fell back on warmer winter weather and

<sup>&</sup>lt;sup>1</sup> IMF (2025), <u>World Economic Outlook April 2025</u>; European Commission (2025), <u>European Economic</u> Forecast – Spring 2025.

ECB (2025), The euro area bank lending survey - First quarter of 2025.

Charts with an A prefix are located in the TRV Statistical Appear

negotiations around a potential end of the Ukraine war, though prices remain sensitive to geopolitical events and adverse weather. In contrast, gold continued its steady appreciation in recent months, supported by demand for safehaven assets.

After declining to historically low levels in recent years, **corporate bond spreads** widened significantly in early April (Chart 3), reflecting growing investor concerns about a potential economic slowdown and fears of increased insolvencies among more vulnerable firms.

In foreign exchange markets, the EUR/USD exchange rate saw a notable increase in 1H25 (Chart A.5), accompanied by heightened exchange rate volatility, potentially affecting portfolio investment decisions and capital flows. It remains uncertain whether this reflects a temporary weakening of the dollar or a broader rebalancing by foreign investors, as markets continue to adjust to shifting monetary and trade policies.

The risk of **real estate** corrections has slightly decreased. Residential real estate prices continued to rise in 2024, supported by improved credit conditions. Commercial real estate prices, after declining since the second half of 2022, started to rise at the end of 2024. While EU real estate fund values were resilient in 1Q25, openended funds are experiencing significant outflows in some jurisdictions. Risks for real estate funds could materialise from a combination of vulnerabilities, including unrealised losses, large market footprint and liquidity mismatches, particularly in the case of open-ended funds.<sup>5</sup>

There are continuing signs of **credit quality improvement** in early 2025, but recent trade uncertainty is expected to weigh on credit quality going forward, as already reflected in the more negative rating outlooks issued by credit rating agencies since April. Further risks may also emerge from the less transparent and harder-tomonitor private credit market, which has expanded in recent years.<sup>6</sup>

The current uncertain geopolitical and macro environment is reflected in record high levels of **economic policy uncertainty** indices, which peaked in April (Chart 5). After an initial reaction from global markets to policy uncertainty through

Our composite market indicator confirms a rise in systemic stress from the sustained volatility in equity and bond markets in March 2025 (Chart 6). Interestingly, asset price correlations have declined since April, suggesting reduced contagion risk between asset classes. However, given the ongoing geopolitical and macroeconomic uncertainty, the risk of further increases in systemic stress remains elevated.

Government debt-to-GDP ratio in EU member states increased slightly to 81.8 % in 1Q25 (+ 0.2 pps year-on-year), and to 88 % in the EA (+ 0.6 pps), amid increasing concerns about the fiscal impact of heightened defence spending pressures. Sovereign bond yields steepened globally, driven not only by concerns over US sovereign debt but also by expectations of higher European issuance to fund increased public expenditures. The US Treasury securities markets experienced significant fluctuations and poor liquidity conditions in April, pointing to underlying fragilities, as political instability could trigger a repricing of sovereign risks. EA yields increased in 1Q25, following the prospect of increased defence spending and Germany's planned fiscal expansion, but reversed most of the upward shift. The first fiscal-structural plans under the revised Stability and Growth Pact were reviewed in 1Q25,7 marking the implementation of a new framework aimed at ensuring sustainable fiscal positions. However, concerns over debt sustainability persist given weak growth projections and the lack of necessary fiscal space to address cyclical effects.

**Net investment flows** showed net outflows in early 2025 (Chart A.7), mainly driven by EA investment in non-EA long-term and short-term debt. These outweighed inflows from non-EA investment in EA equities and long-term debt.

increased volatility, the VIX and VSTOXX indices showed signs of stabilization towards the end of April. If the US continues to enter into preliminary trade agreements, as with the UK in May, and with Japan and the EU in late July, then volatility is likely to ease further. However, any escalation or abrupt shift in ongoing geopolitical conflicts, especially in Ukraine and the Middle East, is also likely to trigger renewed financial market volatility and exert pressure on energy prices.

ECB (2025), <u>Residential property price indicator</u>, <u>Euro area 20</u>, and <u>Commercial property price indicator</u>, <u>Euro area 18</u>, accessed 15 May 2025.

See ESMA TRV Risk Analysis (2024), <u>Real estate</u> <u>markets - Risk exposures in EU securities markets and</u> <u>investment funds</u>, January.

See Textbox 1 in ESMA (2024), <u>ESMA Report on Trends</u>, <u>Risks and Vulnerabilities</u> No1-2024, February.

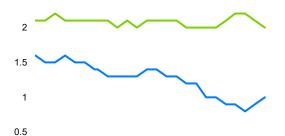
<sup>7</sup> See the <u>European Commission website</u>.

## **Key indicators**

Chart 1

#### GDP and inflation forecasts for 2025

## GDP forecasts down, inflation forecasts stable 2.5

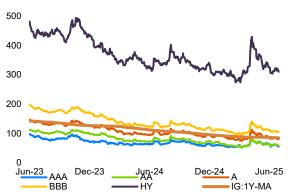


0 Jun-23 Oct-23 Feb-24 Jun-24 Oct-24 Feb-25 Jun-25

Note: Median GDP growth and inflation forecast for the euro area for 2025, by vintage month, in %. Sources: Refinitiv Eikon, ESMA.

#### Chart 3

#### Corporate bond spreads Spike in spreads in April 600



Note: ICE BofAML EA corporate bond option-adjusted spreads by rating, in bps. IG:1Y-MA=one-year moving average of all investment grade indices. Sources: Refinitiv Datastream, ESMA.

#### Chart 5

#### Economic policy uncertainty index



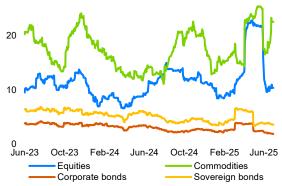
Note: Economic Policy Uncertainty Index (EPU), developed by Baker et al. (www.policyuncertainty.com), based on the frequency of articles in European newspapers that contain the following triple: "economic" or "economy", "uncertain" or "uncertainty" and one or more policy-relevant terms. Global aggregation 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 2

#### Market volatilities

## Strong volatility increase amid policy uncertainty



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 4

#### Market performance

#### Equities and commodities volatile, bonds stable



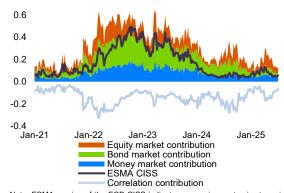
Corporate bonds Sovereign bonds

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), 01/06/2023=100.

Sources: Refinitiv Datastream, ESMA.

#### Chart 6

#### ESMA systemic stress indicator Temporary uptick in systemic stress



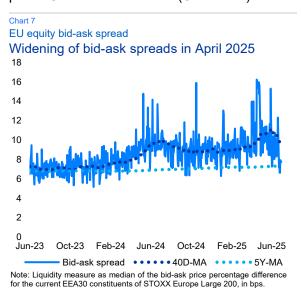
Note: ESMA version of the ECB CISS indicator measuring systemic stress in securities markets. It focuses on three financial market segments: equity, bond and money markets, aggregated through standard portfolio theory. It is based on securities market indicators such as volatilities and risk spreads.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

# **Markets**

## Equity: Drop and recovery amid high volatility

In early 2025, European equity markets performed positively, especially when compared to the global average. EU indices experienced significant growth in 1Q25 (+ 8 %), outperforming those of the US. This positive development followed the announcement of the ReArm Europe plan in late February and the shift in fiscal policy by Germany.

In April 2025, the imposition of trade tariffs by the US and the consequent retaliatory measures undertaken by its trade partners led to a significant drop in equity market prices globally (Textbox 1). In parallel, the level of price-toearnings (PE) ratios of European stocks rose above historical norms, while US ratios declined compared to a peak in Dec 2024, indicating a partial US market correction (Chart A.12).



After the temporary suspension of tariffs, EU markets have rebounded, registering a 11 % gain year-to-date as of end-June, despite the uncertainty surrounding global trade policies (Chart 17).

Sources: Refinitiv Datastream, ESMA.

In the overall positive context, significant sectoral heterogeneity was observed in 1H25. The financial sector, and particularly the valuation of banks, experienced the most significant increase as of end-June (+ 34 % vs end-December 2024). In contrast, non-financials exhibited modest market fluctuations (+ 5 %), with healthcare and

real estate sectoral indices performing negatively (Chart 19).

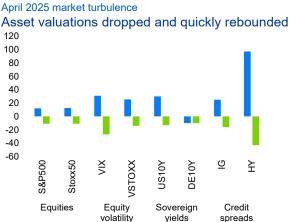
The uncertainty surrounding global trade led to a significant increase in equity market volatility to levels not observed since the COVID-19 related market stress in early 2020. The VIX and VSTOXX indices showed signs of stabilization only towards the end of April, returning close to their long-term average (Chart 18).

The ongoing market nervousness has resulted in an important decline in liquidity measures across European markets, as evidenced by the widening of bid-ask spreads, consistently above their historical average (Chart 7).

#### Market turbulence of April 2025

The announcement of broad-based tariffs by the US on 2 April triggered an episode of stress across asset classes. Initially, equity markets dropped amid high volatility, yields on sovereign bonds declined, and credit spreads increased as investors moved towards safer assets (Chart 8, blue bar). These adverse market developments led to outflows from riskier bond funds: EU high yield bond funds experienced outflows of 2.3 % between 2 and 9 April (- 6.4 % for EU HY ETFs) according to JPMorgan estimates. In contrast, sovereign bond funds and money market funds saw significant inflows, as investors reallocated their portfolio towards safer assets.

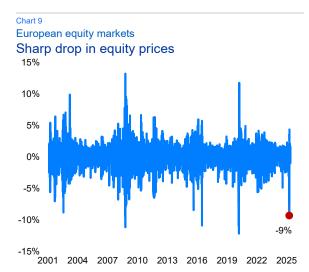
■ Peak to trough 2-8 April



Note: Decline in equity prices, in %. Change in implied volatility change in sovereign yields and change in credit spreads, all in bps. Sources: Refinitiv EIKON, ESMA.

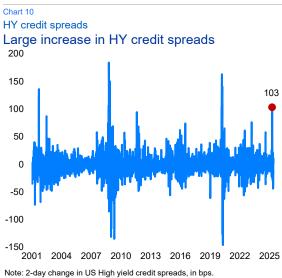
Change 9-25 April

The price moves were extremely large over a very short period: The Europe Stoxx600 experienced a 9 % price drop over two days, one of the largest moves over the last 20 years (Chart 9). Relatedly, US HY spreads increased by more than 100bps in two days, one of the sharpest increase in spreads, only surpassed by moves during the global financial crisis and the dash for cash episode in March 2020 (Chart 10).



Note: 2-day change in Europe Stoxx 600 index in % Sources: Refinitiv EIKON, ESMA.

Following de-escalation efforts from US authorities, markets recovered quickly as asset valuations returned to pre-2 April levels (Chart 8, green bar). During the episode, markets continued to function in an orderly manner.



Note: 2-day change in US High yield credit spreads, in bps Sources: Refinitiv Datastream, ESMA.

#### Fixed income: **Yields** volatile amid trade tensions

Bond yields continued to fluctuate around their long-term averages amid increased uncertainty and escalating trade tensions. At the end of June, yields were generally slightly above the levels recorded at the end of 2024.8 The market functioned orderly overall, despite temporary yet significant episodes of deterioration in liquidity

conditions. Sovereign spreads continued to compress. In the corporate bond market, there was some variation in yield distributions, and spreads widened in recent months, most notably in the HY segment, although part of the widening has since receded.

By the end of June, sovereign bond yields had generally settled at levels slightly above those observed at the end of 2024, despite temporary yet significant fluctuations over this period, and some variations across countries. In the euro area, German yields rose overall to 2.6 % in 1H25 (+ 23 bps since end-2024), with a more moderate upward movement in other Member States such as Spain (+ 16 bps), France (+ 14 bps) and Italy (+7 bps). US Treasury yields stood at around 4.2 % at the end of June (-35 bps), albeit experiencing episodes of great volatility.

In early March, sovereign yields in the EA rose significantly after the announcement of a planned fiscal expansion in Germany and the prospect of increased defence spending. DE yield movements after the announcement were extremely strong (+40 bps in two days) and at historical highs (Chart 11). In subsequent weeks, on the back of escalating trade tensions and following the US administration announced tariffs on April 2, EA yields reversed most of the upward shift, while US Treasury securities experienced significant fluctuations and poor conditions.9 While initially decreasing after the tariff increase announcement, yields on US bonds swiftly reversed their trend and started to increase, challenging their traditional role as safe haven in times of stress. 10

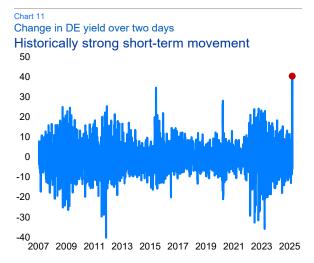
After declining to historically low levels in recent years, corporate bond spreads widened significantly in early April, reflecting growing investor concerns about potential slowdown of the economy as well as fears of increased insolvencies among more vulnerable firms. The distribution of yields across ratings broadened, with the increase in spreads being more notable in the HY segment. These trends partially reversed after the 90-day tariff pause announcement, ultimately settling below end-2024 levels by the end of June. Overall, in 1H25, spreads for investment-grade (IG) securities declined by 9 bps, while for HY spreads were down by 1 bp. Similar trends were observed in other jurisdictions, such as the US, where

See ESMA (2025), Report on Trend, Risks and Vulnerabilities, No1-2025, February.

See Financial Times (2025), Liquidity worsens in \$29tn Treasury market as volatility soars, April.

See also Financial Times (2025), <u>US Treasuries sell-off</u> deepens as 'safe haven' status challenged, April.

corporate yields, after tightening to multi-year lows over the last years, <sup>11</sup> increased even more sharply.



Note: Change in DE 10 Y yield over two days, in basis points. Sources: Refinitiv EIKON, ESMA.

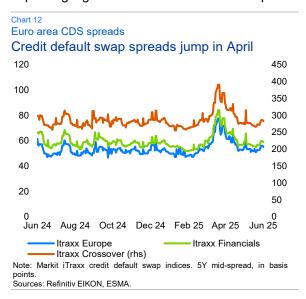
Despite experiencing a notable deterioration in **liquidity conditions** due to trade tensions (Chart A.29), financial markets continued to function orderly thus far. Liquidity indicators for government bonds remained at good levels overall during the first months of the year, although they were slightly more volatile than in previous months.

However, as market uncertainty increased in April, it resulted in a significant yet temporary widening of bid-ask spreads and an increase in market volatility. Yields in the EA became more volatile and dispersed, displaying a reduced correlation across countries and a widening of spreads. Deteriorating liquidity conditions were also evident in the corporate bond market, where bid-ask spreads interrupted an ongoing downward trend and increased in April. However, this deterioration was temporary, and market liquidity conditions subsequently improved amid expectations of a more substantial easing of trade tensions than previously anticipated.

# Credit quality: Deterioration expected with tariffs

The sudden developments in US administration trade policy drove rapid changes in market

indicators of credit risk. Both bond spreads and CDS spreads rose sharply (Chart 12), particularly following the announcement of reciprocal tariffs on April 2, before falling back later in April following the 90-day suspensions of tariffs and improving signs on the US-China trade dispute.



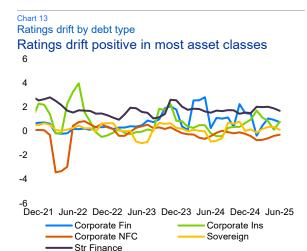
Consistent with their longer-term horizon, there was no corresponding rapid response in credit ratings at that time in April. Credit rating agencies reacted in other ways, for example, S&P revised its global economic growth forecasts downwards and Fitch raised its 2025 European default rate forecasts for leveraged loans and high-yield loans. 12 Rating actions were more in rating outlooks with, for example, Moody's reporting that in April negative outlooks outstanding grew to outweigh positive outlooks for non-financial corporates globally. In these, and other analyses, rating agencies attributed negative credit quality effects to the tariffs and uncertainties.

At aggregate level, indicators based on credit ratings for European debt continued to show signs of improvement across assets, reflecting improvements in credit quality linked to the recent interest rates cuts. Ratings drift, a measure of the direction and strength of the net change in credit quality, shows that EEA **corporate** non-financials drift continued to recover, still negative but approaching zero (Chart 13). Ratings drift for financials recovered strongly, following negative drift in December 2024 driven by a surge in downgrades in French financial institutions following Moody's downgrade of France.

(2025), Global corporate outlooks take negative turn in April, April.

See also Financial Times (2024), <u>Investors pour money into US corporate bond funds at record rate</u>, March.

See S&P Global (2025), <u>Global economic outlook: March 2025</u>, March; Fitch Ratings (2025), <u>European Default Rates Fall, Impact of Tariffs Uncertain</u>, April, and Moody's



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.

Sources: RADAR ESMA

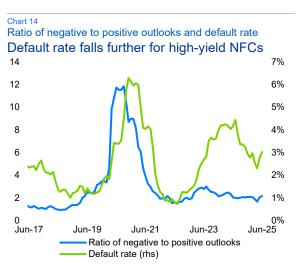
For EU **sovereigns** drift remained close to zero, after negative drift in December 2024, associated with the downgrades of France and Slovakia. In February, S&P revised its outlook for France from stable to negative, and in March Greece's credit rating was upgraded to investment grade (IG) by Moody's, and to BBB from BBB- by S&P in April. In April S&P upgraded Italy to BBB, while Moody's revised its outlook for Italy to positive in May. Moody's also downgraded the US to Aa1 from Aaa in May, joining S&P and Fitch in downgrading the US from its highest rating. In June, ratings drift was again negative, linked to Fitch's downgrades of Belgium to A+ from AAand of Austria to AA from AAA and S&P's downgrade of the Brussel's region.

For **structured finance**, debt ratings drift was positive or near positive across asset classes. Ratings drift was particularly strong for residential mortgage-backed security (RMBS) and to a lesser extent, were largely responsible for an increase in drift for structured finance overall. As with ABS and CDO, upgrades in RMBS far outnumber downgrades, continued to maintaining a long-standing pattern. CMBS, which has generally had negative ratings drift in recent years with the real estate downturn approached zero but remained negative throughout the reporting period.

Fallen angels (IG EEA ratings downgraded to HY) remained stable in 1H25, with 0.14 % of corporate investment grade ratings (unchanged from 2H24) and 0.12 % of structured finance investment grade ratings (down from 0.22% in 2H24) were fallen angels. Levels remain below or near to historical averages (0.27 % for corporates and 0.24 % for structured finance since 2015);

thus – leaving aside possible dramatic changes in market conditions – risks that fallen angels could drive fire-sales by investors remain limited.

Among EEA HY grade non-financial corporates, the twelve-month **default rate** had continued to fall (Chart 14) following the peak in July 2024, but then picked up slightly at the end of 1H25. In line with this, half-yearly defaults for HY corporates rose sharply to 2.1 % in 1H25 (from 0.9 % in 2H24), though the bulk of the defaults were linked to one issuer, the French telecoms firm, Altice. In contrast, defaults for high-yield structured finance fell, to 0.05 % in 2H24 from 0.1 % in 2H24. There were again no reported defaults of IG ratings in any debt category.



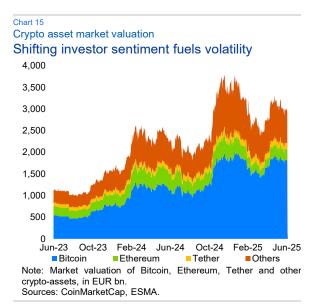
Note: Ratio of negative to positive outlooks and the 12-month rolling default rate in the EEA (defaults in previous 12 months as proportion of outstanding ratings 12 months ago) in percent.

Sources: RADAR ESMA

By and large, the generally positive credit risk indicators presented here have yet to reflect the substantial changes introduced by the US trade policy and international responses. However, the expected deterioration in economic outlook from tariff increases and the ongoing elevated uncertainty will have consequences, in sectors particularly hit by tariffs, and more generally. The extent of this risk will depend on where global tariff policies settle. As spelled out in credit rating agency analyses cited above, the weaker economic conditions could drive increases in downgrades and defaults in the medium term. Further risks could also arise from the less transparent private credit market, which has

grown in recent years in the US and Europe and is much harder to assess and monitor.<sup>13</sup>

# Crypto assets: Fragile sentiment fuels volatility



Trade tensions and deteriorating macroeconomic environment also weighed on crypto-assets in 1H25. The announcement of broad-based tariffs by the US caused crypto prices to fall in early April but they rebounded after the tariffs were suspended later in the month. The U.S. administration's shift to a more crypto-friendly stance 14 and the SEC's decision to drop or pause several lawsuits against crypto firms increased investor confidence. However, concerns have been voiced that conflicts of interest issues could harm investors and undermine trust in the regulatory processes. Interlinkages between crypto-assets traditional markets are growing, including in stablecoins. 15 to These interlinkages warrant close monitoring because of the potential risks to financial stability in the absence of an appropriate global regulatory framework.

The market valuation of crypto-assets totalled

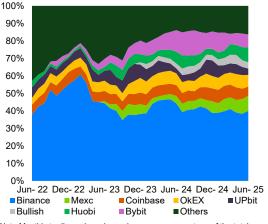
decrease in six months (Chart 15). In contrast to other large crypto-assets, Bitcoin gained 4 % over the period, boosted by growing institutional investments and increased further its dominance to 61 % of the total crypto market valuation. The Pectra upgrade <sup>16</sup> triggered a rebound in Ether's price in May but did not suffice to erase its losses over the period (- 34 %). Binance's and Solana's tokens fell by 17 % and 29 % respectively. XRP fared comparatively better, with a 5 % decrease in 1H25, driven by expectations that ETPs and futures on XRP<sup>17</sup> might receive approval (Chart 22).

EUR 3tn at end-June 2025, down from EUR 3.3tn

in December 2024, representing a 10 %

Monthly trading volumes fell to pre-US election levels, roughly half of their December 2024 peak. Binance maintained its dominance in spot trading with 40 % market share. After suffering the largest hack in history in February 2025, with the equivalent of USD 1.4bn stolen, Bybit, regained some of its lost ground, suggesting sustained user confidence (Chart 16).





Note:Monthly trading volume by exchange as a percentage of the total Sources: Kaiko, ESMA

of end-June. However, their intended role and functions in financial markets are increasingly debated among global regulators, due to the

**Stablecoins** continued to grow at EUR 219bn as

- See Textbox 1 in ESMA (2024), <u>ESMA Report on Trends</u>, <u>Risks and Vulnerabilities</u> No1-2024, February.
- The White House (2025), Executive orders on Strengthening American Leadership in Digital Financial Technology and Establishment of the Strategic Bitcoin Reserve and United States Digital Asset Stockpile – The White House, 23 January 2025 and 9 March 2025.
- Available evidence suggests that banks and other financial institutions' exposure to crypto-assets is expanding, although from a low base. For example, several have recently launched or announced plans to
- issue stablecoins or provide investment services for crypto-assets.
- The Pectra upgrade, which became effective on the Ethereum main net on 7 May 2025, introduced a series of new features to enhance validators' and users' experience, notably in relation to staking and smart wallet capabilities.
- On 20 May, CME Group announced that XRP futures were available for trading. CME Group (2025), CME Group Announces First Trades of XRP Futures, May.

important risks they could raise to financial stability in the absence of a relevant regulatory framework globally. In the EU, the business model of firms issuing the same stablecoin both inside and outside the EU has attracted strong criticism because of its vulnerability to the risk of a run. 18 Tether's USDT remained the market leader, although its relative share declined from 65 % to 61 % over the period. In January 2025, ESMA issued a statement requiring crypto-assets service providers to cease services related to non-compliant asset referenced tokens (ARTs) and e-money tokens (EMTs), commonly known stablecoins. 19 Prominent EU exchanges de-listed USDT as a result, showing the positive impact of the regulation. Another consequence of the entry into application of MiCA's as regards stablecoins in June 2024 has growth been the of euro-denominated stablecoins, whose monthly traded volumes more than doubled in a year, to EUR 426mn in June 2025, although they still represent a tiny fraction (only 0.1%) of the total volumes traded in stablecoins.20

Following sizeable outflows in late February and early March, the SEC-approved Bitcoin **ETPs** saw strong inflows in 2Q25. Since their launch in January 2024, the ETPs have attracted EUR 44bn in net inflows, bringing their combined net asset value to EUR 114bn – for comparison, this is about a third of the size of gold ETFs. Meanwhile, the poor performance of Ether discouraged investment in the Ether ETPs, whose combined size totalled EUR 8.4bn in June (down from EUR 11.7bn as of end-2024).

Hacking remains a persistent threat, as shown by the recent breaches of prominent exchanges, including Bybit in February 2025 and Coinbase in May 2025 and the attempted abduction of crypto executives. Chainalysis recent crime report highlighted that in 2024, funds stolen increased by 21.1% year-over-year to USD 2.2bn, and that the number of individual hacking incidents increased from 282 in 2023 to 303 in 2024.

Under this model, a stablecoin issued in the EU under MiCA is fungible with a stablecoin issued in a third-country. The reserves backing the coin are split across the EU and the third-country and re-balanced as needed. This model raises regulatory arbitrage issues and makes the coin vulnerable to the risk of a run. For example, in a stress scenario, investors would seek to redeem their coins with the EU entity to benefit from the immediate and cost-free redemption at par provided under MiCA. This would quickly deplete the reserves at the EU entity. The EU entity could ultimately lack the necessary reserves to process the redemptions as needed, e.g., in case the reserves from the third-country entity are not timely re-

balanced or are being ring-fenced by the local authority like we saw during the global financial crisis.

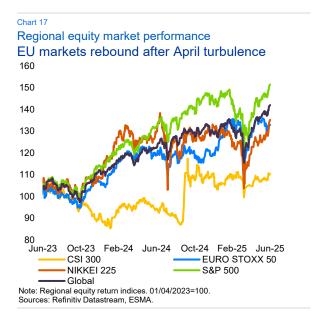
ESMA (2025), <u>Public Statement On the provision of certain crypto-asset services in relation to non-MiCA compliant ARTs and EMTs</u>, January.

As of end-June 2025, 18 EMTs had been issued under MiCA. For more details, see <u>ESMA register</u>.

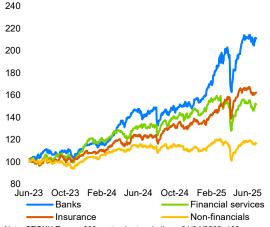
Financial Times (2025), <u>US crypto group Coinbase targeted by hackers</u>, 15 May 2025, and <u>Crypto executive freed after kidnap in France</u>, January 2025.

<sup>&</sup>lt;sup>22</sup> Chainalysis (2025). The Chainalysis 2025 Crime Report

## **Key indicators**

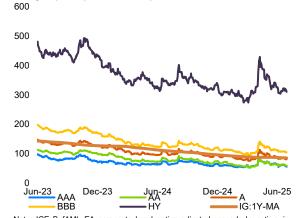


#### Equity price performance in Europe by sector Banks relative outperformance persists



Note: STOXX Europe 600 sectoral return indices. 01/04/2023=100. Sources: Refinitiv Datastream, ESMA

#### Corporate bond yields Early April spike, more pronounced for HY

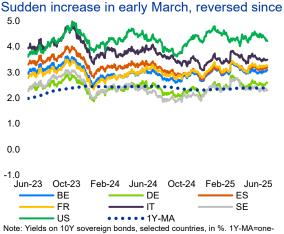


Note: ICE BofAML EA corporate bond option-adjusted spreads by rating, in bps. IG:1Y-MA=one-year moving average of all investment grade indices. Sources: Refinitiv Datastream, ESMA.

## Equity market volatility indices Massive volatility spike in April 2025 50 40 30 20 10 Jun-23 Oct-23 Feb-24 Jun-24 Oct-24 Feb-25 Jun-25 VSTOXX •••••5Y-MA VSTOXX Note: Implied volatility of EURO STOXX 50 (VSTOXX) and S&P 500 (VIX),

Sources: Refinitiv Datastream, ESMA.

#### EU and US sovereign bond yields



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

#### Chart 22

#### Crypto-assets prices



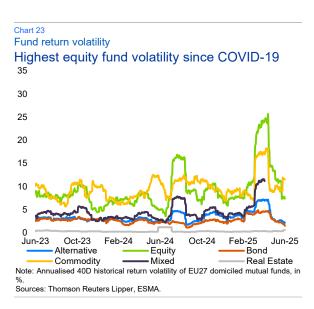
Note: Indexed price of selected crypto-assets (price of 31th December 2024 =

Sources: Kaiko, ESMA

# **Asset management**

# Fund sector resilient in volatile environment

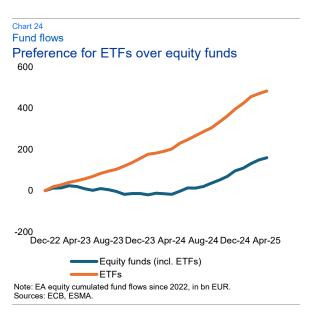
In 1H25 EU funds experienced their highest volatility since the Ukraine invasion for alternative and commodity funds, and even since the COVID-19 outbreak for equity, mixed and bond funds (Chart 23). Equity funds' returns were particularly volatile at 23 % due to their exposure to the US equity market, which represents nearly half of their holdings.



Fund average annual **performance** remained positive in 1H25 but fell abruptly since March. This is particularly the case for equity funds, as their annual monthly return declined from 1.4 % in 2024 to 0.3 % in 1H25. In contrast, the impact on bond funds remained limited, with their returns declining from 0.5 % to 0.4 %.

Despite the rise of volatility and general market uncertainty, **flows** were muted for equity funds (0 % in 1H25) with no disorderly flows resulting from risk aversion linked to market volatility. Flows have been muted for equity funds since 2022 (EUR 128bn in total), with the growth of the sector solely driven by valuation effects (+ 40 %; EUR 6.9tn). In comparison, flows into ETFs (of which a majority equity ETFs) have been sustained over the same period (EUR 454bn), suggesting a structural shift from actively managed equity funds to equity ETFs (Chart 24).

In contrast, flows into fixed income funds were sustained in 1Q25, particularly for funds investing in EU assets compared to funds investing in US assets. While the market turbulences in April partly reversed this trend in 2Q25, with outflows across bond fund categories (especially corporate bond funds), bond funds still reported inflows of 2.1 % in 1H25.



Net inflows into in **Money Market Funds** remain sustained in 1H25 (5.1 %). This trend applies across MMF types, as EUR, GBP and USD MMFs all reported positive flows.

Overall, EA investment funds managed EUR 20.6tn **assets** as of 1H25 (including MMFs), 13.8 % above the level of end 2024.

# Repricing risks have increased

As equity market valuations have recovered from the early April market turbulences, high valuations of the equity market, especially in the US, still pose a risk of sudden repricing. Beyond the consequences for investors, supervisors use stress tests to assess the potential consequences for **financial stability**.

Against this background, ESMA ran a stress test exercise with the IMF for the Euro area Financial Sector Assessment Programme (FSAP) to measure the consequence of a series of market shocks. One finding is that, although market shocks may primarily affect equity funds, spillovers are more likely to affect bond markets. Another finding is that access to repo market to

meet liquidity demands mitigates the extent of spillover effects (Textbox 2).

Textbox 2

#### Euro area 2025 FSAP

ESMA and the IMF performed a stress test in 1Q25 on around 13,000 UCITS, 19,000 AIFs and 400 MMFs accounting for a NAV of EUR 16.1trn (around 70% of all EU funds).23

#### Scenario

The scenario aims to assess system-wide spillovers from fund liquidity stress, where a broad-based market shock leads to liquidity demands on investment funds stemming from redemption requests, margin calls on derivatives and collateral calls on repo borrowing. In response, funds take actions to raise liquidity such as deposit withdrawal, asset sales or new repo borrowing, or can temporary suspend redemption. These actions can have different impacts on counterparties and markets.

#### Asset revaluation

Shocks to interest rates, spreads and equity are calibrated over 2 time horizons: 2 days and 2 weeks. The impact is differentiated by assets (e.g. government and corporate bonds, EA and US equity), taking into account their characteristics (rating, maturity, geographical area). While the impact is benign on short term government bonds, government bonds with a maturity over 10 years loose more than 20 % in two weeks, depending on their rating. Equity is generally severely affected, with losses exceeding 20 % in two weeks in the EA and in the US.

Fund losses reflect the severity of the market shocks. Equity UCITS (-23 %) and AIFs (-18 %) are the most severely impacted, as well as alternative UCITS.

Mark-to-market losses in the two-week scenario

Strategy	Regulatory type	Loss (% of AuM)
Equity	UCITS	-23
Equity	AIF	-18
Funds of funds	AIF	-16
Mixed	UCITS	-16
Alternatives	UCITS	-13
Bond	UCITS	-8
Mixed	AIF	-8
Bond	AIF	-7
Money	UCITS	-6
LDI	AIF	-4
Hedge funds	AIF	-3
Real estate	AIF	-3

Source: IMF, ESMA.

#### Liquidity demands

In the two week scenario, investor redemptions in response to market shocks represent on average 8.8 % of NAV for UCITS funds and 3.5 % for open-ended AIFs. Equity UCITS funds are the most affected, with redemptions exceeding 12 % on average.

The scenario also tells us that variation margins are the main draw on liquidity over the first 2 days but play a lesser role

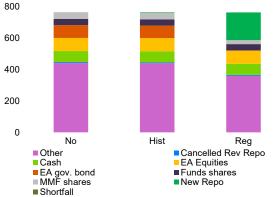
See IMF (2025), "Euro Area Policies: Financial System

over 2 weeks, when redemption requests become the main driver of liquidity demands.

#### Funds' reaction

ESMA tested different assumptions, assuming funds could use repo (1) at their historical level, (2) until they reach the regulatory leverage limit or (3) don't use repo. One result is that the possibility to use repo significantly reduces EA bond sales. Another finding is that the total shortfall in the 2-day scenario is small compared to sales in 2-weeks scenario, indicating that measures such as a temporary suspension of redemptions can cope with initial shortfall.

Asset sales and shortfall in the two-week scenario Repo use limits asset sales



Note: Amounts sold in EUR bn under the 2-week scenario with a waterfall liquidation strategy, by repo availability assumption. Sources: IMF staff, ESMA.

#### Spillovers

ESMA assessed spillovers to underlying markets. When the recourse to repo is limited, the impact on EA government bonds could reach nearly 250 bps. This analysis sheds further light on the interactions between liquidity demands, banks and core markets such as sovereign bonds and repo.

Bond fund holdings of liquid assets remained stable in 1Q25, thus maintaining their resilience to liquidity risk, while HY funds increased their liquidity ratio (7.2 % NAV in 2Q25 compared with 4.1%in 4Q24; Chart 29). However, in the corporate bond fund category, this liquidity buffer held in cash is very limited (1.8 %).

Despite uncertainties surrounding the macroeconomic environment, the materialisation of credit risk remained stable in 2Q25 for HY funds and has remained between BB- and B+ on average since 2021. Moreover, bond fund credit quality sensibly improved with an average rating around A, its highest level in five years (Chart 30).

Interest rate risk was stable for most bond funds, as the effective average maturity of bond fund portfolios remained close to 7.5 years and 4.9 years for HY funds. The latter remained however elevated in historical terms, nearly 1 year above its 5-year average. Regarding MMFs,

Stability Assessment", July.

their Weighted Average Maturity (WAM) decreased in 1Q25 from 45 to 41 days and remains close to its long-term average.

ESMA continues its monitoring of the evolution of the real estate fund markets as the combination of declining real estate prices and outflows is putting pressure on RE funds in some jurisdictions. While prices seem to have reached their bottom, CRE prices remain 14 % below their June 2022 value. At EU level, real estate fund values were resilient (+ 5.1 %), but there still is a risk of losses for funds that have not adjusted the value of their portfolio. Moreover, in some jurisdictions, open-ended funds are experiencing significant outflows, which accelerated since 2024. Austrian RE funds, which offer daily redemption, have managed to meet more than 35 % redemptions in terms of their AuM since 2022 (Chart 26).

**RE Cumulated flows** Negative flows in several jurisdictions 6% 20% 3% 10% 0% -10% -3% -6% -20% -9% -30% -12% -40% .lun-22 May-23 Apr-24 Mar-25 -DE EΑ AT (rhs) Note: Cumulated flows in EA jurisdictions since June 2022, in % of AuM Sources: ECB.

Leverage-related risks remain a point of attention for funds. Gross measures of leverage (which include financial and synthetic leverage<sup>24</sup>) point to an increase within the alternative fund sector. The ratio of AuM/NAV now represents 154 % for alternative funds, compared with 122 % at the end of 2022 (Chart 31). ESMA is particularly attentive to the evolution of leverage. Two articles published in 2025 confirmed the high level of leverage borne by hedge funds<sup>25</sup>, but also the existence of a sub-sample of UCITS reporting

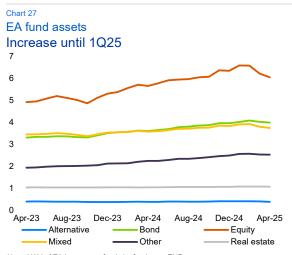
high level of leverage gained through derivative strategies.<sup>26</sup>

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

See ESMA TRV Risk Analysis (2025), <u>Annual risk</u> assessment of leveraged AIFs in the EU – 2024, April.

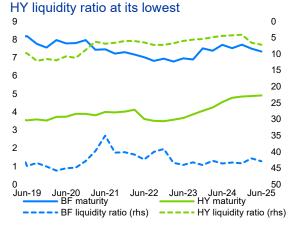
See ESMA TRV Risk Analysis (2025) <u>Risks in UCITS</u> using the absolute Value-at-Risk approach, April.

## **Key indicators**



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

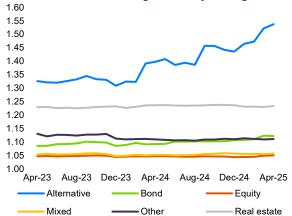
# Chart 29 Liquidity risk profile of EU bond funds



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

## Chart 31 Financial leverage

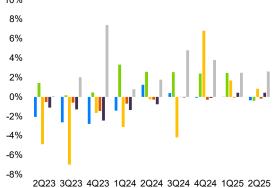
## Alternative funds leverage at two-year high 1.60



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

#### Chart 28

#### EU fund flows by fund type Muted flows, except for MMFs 10%

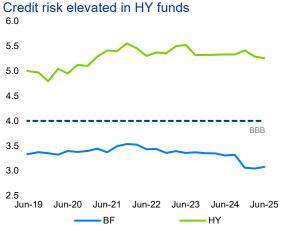


■Alternatives ■Bond ■Commodity ■Equity ■Mixed ■MMF

Note: EU27-domiciled funds' quarterly flows, in % of NAV. Sources: Refinitv Lipper, ESMA.

#### Chart 30

#### Credit risk



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

#### Chart 32

## MMF maturity WAM decreases



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

# Consumers

#### Confidence rebounds

Investor confidence in future market conditions recovered in May and June 2025, having sharply dipped in April (Chart 35) amid announced changes to trade policies and persisting geopolitical uncertainty. Sentiment in current market conditions remained weak. Nonetheless, the aggregate financial position of households strengthened. The value of financial assets owned by households increased significantly in 1Q25 (+ 3.8 % year-on-year), while real assets also grew (+ 4.3 %, Chart A.104).

Net retail inflows into **bonds** held by EU households fell to 0.7 % of disposable income, down from 3.3 % a year earlier, while net retail inflows into **equities**, in contrast, were 2.2 % in 4Q24, up from near-zero a year earlier (Chart A.108). Nonetheless, retail investor demand for indirect exposure to fixed income remained strong with total retail inflows to **bond funds**, of EUR 190bn in 2Q25, while equity funds and mixed funds saw small net flows of EUR 5bn and EUR 15bn respectively (Chart 40).

Retail investors have tended to vary their **asset allocation** with respect to active funds much more than for passive funds or ETFs (Chart A.112, A.113). The strong recent inflows to bond funds are almost entirely due to the active segment, just as for outflows in 2022. Similarly, annual equity fund outflows in 2Q25 were due to investors withdrawing from actively managed funds

## Returns stay positive

The performance of retail investments was positive and above the 5Y average, both in nominal terms and real terms (Chart 36). The 1Y-MA of monthly gross returns stood at 0.7 % (0.5 %) in nominal (real) terms in May 2025.

In 2Q25, **retail fund returns** fell, though annual performance net of costs remained positive, across all asset classes: Bond, equity and mixed

funds all delivered similar, positive net returns during this period (3 %).

#### ETF transactions increase

EU-level MiFIR transaction data allow monitoring of consumer behaviour, trends and risks.<sup>27</sup> There are far more retail transactions in equities and ETFs than in bonds. Bond transactions are prone to seasonal effects, which may relate to the timing of sovereign issuances (Chart 37). September 2024 saw a marked increase in retail transactions in equities and ETFs, which was sustained through to June 2025. The increase in such transactions mirrored anticipation in equity markets ahead of the US election and the effects of the first weeks of the new US administration.

Retail investors tend to transact differently in ETFs than in equities (Chart 38). While over 80 % of ETFs **retail transactions** are purchases (as opposed to sales), for equities this was mostly under 60 % over the two years to June 2025. This difference may be because individuals use ETFs as a long-term destination for their savings (e.g. 'topping up' their ETF investments regularly or even automatically every month) while only occasionally liquidating larger amounts. In contrast, investments in equities might be more one-off transactions due to limited availability of (automated) top-up programs.<sup>28</sup>

More than half of bond transactions are classified as **domestic**, (i.e., investors and issuers belong to the same country). For equity transactions, this share declines to a quarter. This difference may be partly attributable to home bias and also to the fact that some governments have programmes for retail bond issuances catering to domestic investors. <sup>29</sup> Finally, analysis of demographic traits such as **age** can provide insight into investor behaviour more generally (Textbox 3).

<sup>&</sup>lt;sup>27</sup> ESMA TRV Risk Analysis (2022), <u>Developing Retail Risk Indicators for the EU Market</u>. As set out in that analysis, indicators covering market descriptives of transactions for major asset classes – bonds, equities and ETFs – are a natural starting point for assessing retail risk. Such indicators are presented in this TRV Risk Monitor. However, more niche products may pose heightened risks to retail investors, e.g. due to product complexity or

leverage. In the future, analysis of transactions involving these products could also be valuable.

Development of indicators using the transaction data in the future could estimate how long retail investors tend to keep their positions open, to provide further insight.

OECD (2025), <u>Sovereign Retail Debt Programmes and Issuances</u>.

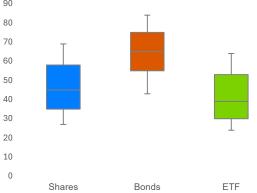
#### Textbox 3

#### Patterns in retail investing over the life cycle

The demographic profile of consumers affects what types of investments are suited to their needs. The economic life cycle suggests that older investors are likely to benefit from a higher share of fixed income investments in their portfolios, to the extent they have a shorter investment horizon. This is borne out by the data (Chart 33), which show that the median age of investors in bonds (65) is significantly higher than that of investors in equities (45) and ETFs (40).

The age profile among ETF investors has shown a slight downward trend, whose median age fell from 41 in 2023 to 40 by 1H25.<sup>30</sup> However, the age profile across asset classes is broadly stable over time, suggesting a structural distribution across asset classes.

Chart 33
Age distribution of retail investors by asset class
Bond investors tend to be older



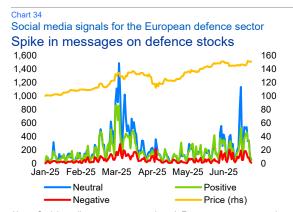
Note: Age distribution of unique retail investors making at least one transaction for a given asset class in 1H25. Boxes show 25th, 50th and 75th percentiles; whiskers show 10th and 90th percentiles. These preliminary statistics may be revised in future.

Source: MiFIR transaction reporting, ESMA.

Retail trading has transformed remarkably in recent years, with social media playing a key role in shaping investor behaviour. Individuals have unprecedented access to real-time data, and to collective investment discussions previously reserved for professionals. However, social media also poses risks such as information overload, unchecked misinformation, market manipulation, and emotionally driven decisions fuelled by herd behaviour.

While not as extreme as the GameStop frenzy 2021, a few European defence companies that had been targeted by short sellers experienced significant momentum in March as retail traders coordinated on **social media** their intent to buy stocks to support the companies' share prices.<sup>31</sup> Chart 34 shows the large spike in volumes of social media messages making positive

#### comments on the European defence sector.



Note: Social media messages on selected European aerospace and defence stocks that received mentions across several social media platforms from Jan to Jun 2025, classified by sentiment type. 'Neutral' corresponds to those residual messages not classified as positive or negative. Price is the indexed (to 100) dailily price of the Stoxx 600 Aerospace and Defence index, righthand side (rhs) Sources: Stockpulse, ESMA.

Returns in the European defence sector were not limited to the companies subject to the social media activity: The relevant sectorial equity index increased by 51 % during 1H25 (see also Textbox 4 in the market-based finance section). Several dynamics were at play, including expectations of higher future demand for EU defence products and increased media attention on certain companies (e.g. Eutelsat). The strongly positive year-to-date returns by June, even as social media activity declined, suggested fundamentals were mostly driving valuations.32

# Investor protection: Complaints rise

Complaints reported through firms and directly by consumers to NCAs totalled 4,400 in 1Q25, somewhat above their 2Y quarterly average (Chart A.129). This followed a spike in complaints in 3Q24 associated with a real estate fund in Germany that had undergone a value correction.

Among complaints for which an instrument type was recorded, around half related to equities, followed by complaints related to funds (18%) and those related to CFDs (13%).<sup>33</sup>

Regular monitoring of retail transactions published by FR-AMF has shown an increase in new buyers of ETFs in France since 2H24, especially by younger investors. See AMF (2025), Active Retail Investor Dashboard - No.17. BE-FSMA have found comparable trends in Belgium as reported in FSMA (2025), 2024 Q3 Retail Investors Dashboard.

Financial Times, 20 March 2025, Retail investors take on hedge funds in Europe's answer to 'meme stock' mania.

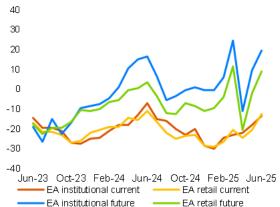
<sup>32</sup> ESMA TRV Risk Analysis (2024), <u>Social media sentiment influence on EU equity prices</u>, April.

<sup>&</sup>lt;sup>33</sup> Interpreting patterns in complaints data is complicated by limitations, such as significant time lags, incomplete coverage and heterogeneity between Member States.

## **Key indicators**

## Chart 35 Investor sentiment

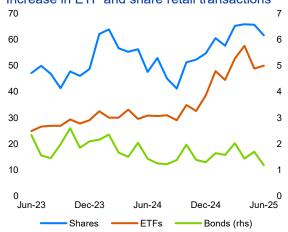
#### Volatile investor confidence



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 27

#### Number of retail transactions by asset class Increase in ETF and share retail transactions



Note: Monthly gross number of transaction for EU retail investors by selected asset classes, millions.

Sources: MiFIR transaction reporting, ESMA.

#### art 39

#### Social media activity

#### Fewer messages on EU stocks in 2H25 35 30 500 25 400 20 300 15 200 100 May-23 Aug-24 Positive Negative Neutral Sentiment (rhs)

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', thousands. Sentiment is defined as the prevalence of positive versus negative messages as a ratio of total daily messages on the constituents of STOXX 600, %, right hand side axis (rhs). Sources: Stockpulse, ESMA.

#### Chart 36

#### EU household portfolio returns



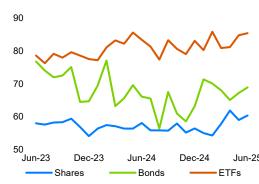
Note: One-year moving average of the monthly gross nominal and real returns of a stylised EU household portfolio, in %. Asset weights, computed using National Financial Accounts by Institutional Sectors, are 36% for collective investment schemes, 39% for deposits, 22% for shares and 3% for debt securities.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

Sources: Refinitiv Datastream, Refinitiv Lipper, ECB, Eurostat, ESMA.

#### Chart 38

100

# Share of 'buy' transactions by asset class Far more purchases than sales of ETFs



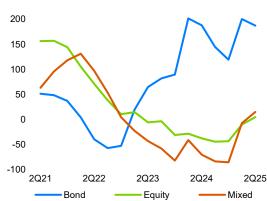
Note: Monthly share of retail transactions for a given asset class in which the retail client bought rather than sold the security, %. A figure of 50% means that there were equal numbers of 'buy' and 'sell' transactions by retail investors.

Sources: MiFIR transaction reporting, ESMA.

#### Chart 40

#### Retail UCITS net flows by asset class

#### Net inflows for bond funds 250



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

# Infrastructures and services

# Cyber and operational risks: Rising threat

Past cyber and operational incidents have highlighted the growing threat to financial stability. In April 2025, a major power blackout across the Iberian Peninsula affected mainland Portugal, peninsular Spain, and parts of southwest France. The blackout lasted up to ten areas disrupted telecommunications, transportation systems, and essential services, resulting in severe economic consequences. Despite the widespread disruption caused by the incident, exchanges and market infrastructures continued to function overall.34 While preliminary evidence seems to exclude the possibility of a cyberattack,35 the incident underscores the ongoing vulnerabilities that operational disruptions and cyber events can pose to critical energy infrastructure.<sup>36</sup>

On 27 February, Target systems experienced a major incident caused by a defective hardware component. TARGET-2 (T2), the real-time system for settling large-value euro payments experienced an outage, while TARGET-2 Securities (T2S), which matches cash and securities so trades can be completed faced communication disruptions. TARGET Instant Payment Settlement (TIPS) remained operational but responded slowly for instant payments (EUR/SEK) and liquidity transfers. From the CCP perspective, CCPs could neither receive settlement confirmations for previously instructed transactions nor send new settlement instructions throughout the day, while settlement processes related to CSD operations in T2S were delayed by several hours. In the end, this major incident created difficulties in settlement across capital markets, including settlement fails and delays. ECONS II (Enhanced Contingency Solution) was activated for very critical payments (e.g., margin

calls, Continuous Linked Settlement or CLS, the global payment-versus-payment system that settles the cash legs of FX trades). Failover activities were completed, and backup technical solutions were put in place over the course of the day. Cut-off times were subsequently adjusted once systems were fully operational. This caused an important increase in the total number and value of settlement fails. Regarding the significant and far-reaching impact on the settlement activity, ESMA issued a statement<sup>37</sup> clarifying the supervisory approach that national competent authorities took regarding the treatment of settlement fails following this major incident.

The **frequency and sophistication** of incidents have increased in recent years, and their financial impact is both significant and growing. <sup>38</sup> A recent report by ENISA also highlights a substantial increase in the variety of cyberattacks. <sup>39</sup> The financial sector remains a prime target (Chart 41) due to the vast amounts of sensitive data and transactions it handles. Cyberattacks on financial institutions and critical market infrastructure can disrupt critical services, erode confidence, and cause spillovers to other sectors.

As digitalization and geopolitical tensions increase, so does the risk of **cyber incidents** with systemic consequences. Financial firms must enhance their cybersecurity measures, adopt contingency plans, and implement governance frameworks to mitigate these risks. Public initiatives are also key to addressing the broader systemic effects of cyber threats. These include the development of policy guidance to strengthen operational resilience, the inclusion of cyber risks in supervisory stress exercises and financial

See, for example El Mundo (2025), <u>The Spanish stock</u> market opens normally after the major blackout, April.

Spain's National Cybersecurity Institute was reported to be investigating the possibility that a cyberattack caused the incident, but early investigation showed no evidence "no intrusion" into the system that could have caused the incident. See also Financial Times (2025), <u>Spain's</u> <u>electricity grid operator rules out cyber attack as cause of blackout</u>, April.

<sup>&</sup>lt;sup>36</sup> In 2015, for instance, Ukraine suffered widespread blackouts after hackers successfully inflected the computer systems of regional energy companies with

malware. See Cybersecurity and Infrastructure Security Agency (2021), Cyber-Attack Against Ukrainian Critical Infrastructure, July.

<sup>&</sup>lt;sup>37</sup> See ESMA (2025), <u>Public Statement on the treatment of settlement fails with respect to the CSDR penalty mechanism</u>, following the major incident that affected T2S and T2 on 27 February 2025, March.

<sup>&</sup>lt;sup>38</sup> See <u>ESMA Report on Trends</u>, <u>Risk and Vulnerabilities</u>, No. 1, 2025.

<sup>&</sup>lt;sup>39</sup> European Union Agency for Cybersecurity (2024), <u>Threat Landscape 2024</u>, September.

stability assessments, and the establishment of incident reporting frameworks.<sup>40</sup>

ESMA is in the process of enhancing its operational risk monitoring since its presentation in TRV 1, 2018.<sup>41</sup> This includes the review of new data sources for our risk monitoring, and a stress stimulation of operational and cyber incidences in key markets in the EU.<sup>42</sup> New data sources, risk metrics and stress simulations will be integrated into our risk assessment work.

## Trading venues: Recordhigh volumes in March

During 1H25, **equity trading volumes** increased steadily, with overall volumes up on average by 26 % (27 %), compared to 2H24 (1H24). The heightened volatility environment and portfolio rebalancing was reflected in record-high trading volumes, reaching EUR 2.1tn in March 2025.

In terms of composition, the relative share of OTC activity decreased in 1H25 (- 1.4 %), while the share of trading in EEA lit markets grew marginally over the same period (+ 0.6 %). In terms of absolute amounts, systematic internalisers (SI) trading saw the most significant growth, up 46 % vs 1H24. No significant changes were observed in the relative share of trading in EEA dark pools, SI and periodic auctions (Chart 42).

# Settlement: SetIns dominate settlement flows

In 2H24, settlement fails at **EU CSDs** in the UCITS segment recorded a notable spike, primarily driven by a few very large transactions within one securities settlement system. This increase appears localized and does not reflect a broader deterioration in settlement efficiency across market segments. Fail rates for other instrument types remained stable over the period.

**Settlement internalisers** (SetIns)<sup>43</sup> have consistently been processing significantly higher transaction numbers and values compared to CSDs. This is especially the case in high-turnover

The picture is different in fixed-income markets. In bonds and money-market instruments, SetIns settled only about 60-70 % of CSD volumes in terms of number of instructions and less than 50 % of the corresponding value during 2024. In contrast, fail rates were higher for SetIns compared to CSDs in fixed-income markets, esp. in terms of settled values. The bond fail rate was lower by transactions (2.2 % vs 8.2 %) for SetIns, but higher by value (8.3 % vs 5.4 %). For moneymarket instruments there was the widest gap, with SetIn value-based fails close to 10 % against 3.5 % for CSDs (Charts A.154 to A.159).

# CRAs: Further reduction in EEA corporate ratings

The total number of outstanding ratings reported to ESMA slightly increased, by 0.9 %, in 1H25, to 571,750 ratings. Of the ratings outstanding, 26 % were for EEA issuers or instruments, 4 % were for those in the UK and 52 % were for those in the US. As in 2H24, however, there was a reduction in the number of outstanding EEA ratings during the reporting period, which fell 3 % to 149,750. This was driven largely by corporate ratings 115,300 (- 4,900). Sovereigns grew, 19,600 (+ 600), while structured finance ratings outstanding continued to grow, reaching 14,700 (+ 300, Chart 46).

As in 2H24, the large drop in EEA corporate ratings was due to Creditreform, a credit rating agency whose number of outstanding EEA corporate ratings fell by about 5,900 in 1H25, driven by its decision to withdraw ratings for business reasons.<sup>44</sup> Unlike in 2H24, the reduction was not mainly in covered bond ratings, but predominantly due to financial ratings (about 5,100 removed, including about 500 covered

instruments like equities and ETFs. For example, SetIn transactions for equities alone were over five times higher than those of CSDs during 2024, with a similar picture for total value settled in equities. We also note a high concentration at the level of a few SetIns. Despite higher volumes, SetIns reported notably lower fail rates for equities and ETFs.

Information on cyber incidents is crucial for taking effective action and promoting financial stability. See FSB (2021), Cyber Incident Reporting: Existing Approaches and Next Steps for Broader Convergence, October.

See ESMA TRV Risk Analysis, Operational risk assessment – the ESMA approach, <u>Report on Trends</u>, <u>Risk and Vulnerabilities</u>, <u>No. 1, 2018</u>.

SeeESMA TRV Risk Analysis (2025), <u>Measurement and modelling of cyber risk</u>, July.

Data for settlement internalisers (SetIns) is for the first time reported in the TRV risk monitor with data availability until end 2024.

<sup>44</sup> Creditreform (2025), Withdrawal of Bank, Corporate and Covered Bond Ratings, Press Release, January 15.

bond ratings) and to the removal of about 800 non-financial ratings.

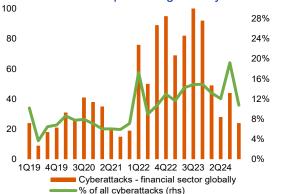
In line with previous periods, around half of new ratings for EEA debt were issued by **smaller CRAs**, with 49 % (-1 pp) issued by CRAs not among the 'big three' (Fitch, Moody's, and Standard and Poor's). However, due to the substantial withdrawals by Creditreform, smaller CRAs accounted for far more withdrawals of ratings, 65 % (+6 pps). As a result, we saw a relatively large increase in the share of the **big three CRAs** in outstanding long-term ratings, to 65 % (+3 pps) (Chart A.141).

As in previous periods, the share of ratings solicited by issuers remained highly dominated by the big three CRAs (88 % in 1H25, -1 pp), with little change across debt types except for sovereigns (89 % for corporates (unchanged), 85 % for sovereigns (-3 pps) and 89 % for structured finance (unchanged)). Thus, rating activity by smaller CRAs remains almost entirely focused on the issuance of ratings not solicited by the debt issuer.

## **Key indicators**

Chart 41

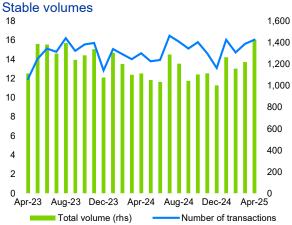
## Cyberattacks on financial sector entities Financial sector as prime target for cyberattacks



Note: Cyberattacks on financial sector entities globally by quarter, publicly-acknowledged incidents. For details, see Harry, C., & Gallagher, N. (2018). Classifying cyber events. Journal of Information Warfare, 17(3), 17-31. Sources: University of Maryland CISSM Cyber Attacks Database, ESMA

Chart 43

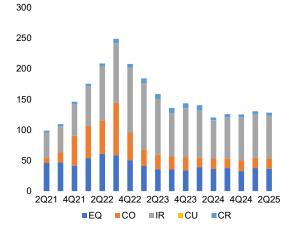
#### €STR rate volumes



Note: ESTR monthly number of transactions, in thousand, and monthly volumes, EUR tn, before trimming. Sources: ECB, ESMA.

#### Chart 45

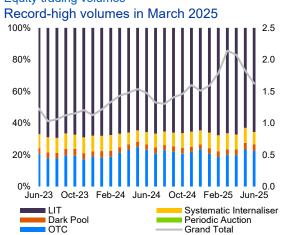
# Initial margins collected by EU CCPs by asset class Stable IMs



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

Chart 42

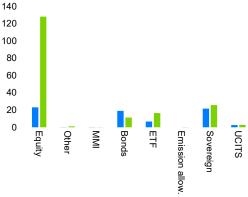
#### Equity trading volumes



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 2025.
Sources: FIRDS, FITRS, ESMA.

#### Chart 44

#### CSD vs. SetIns – number of setIled instructions SetIlement internalisers dominant for EQ, ETFs

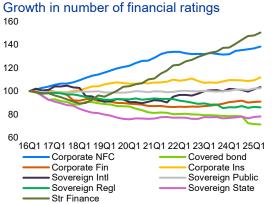


CSD number of settlement instructionsSetIns number of settlement instructions

Note: 2024 Average number of settled instructions at EU CSDs and settlement internalisers (SetIns) each quarter, in mn. Sources: CSDR9, ESMA.

#### Chart 46

#### Outstanding ratings



Note: Evolution of the number of outstanding EEA issuer and instrument ratings by debt category on last day of quarter, indexed at 31 March 2016=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 has slowed in the beginning of 2025 (Chart 49). Primary bond markets remain a significant source of funding for European companies, while on the equity side, initial public offerings (IPOs) are still showing no signs of recovery.

Market-based financing has lost momentum over the last year, with growth rates slowing to near zero in 1Q25. EA companies continue to perceive the general economic outlook as hindering the availability of external financing, while remaining slightly optimistic overall about a modest improvement in the availability of bank financing over the next months. The financing gap has remained largely unchanged.<sup>45</sup>

## Equity issuance on hold

The EU IPO market has remained generally subdued, weighed down by uncertainty over trade tensions, geopolitical instability, slowing economic growth and heightened equity volatility (see market environment and securities market sections). Despite a modest increase in 1H25, equity market issuance remained well below its long-term average, with the total number of issuances in primary markets standing at almost 500 in the first half of the year (from 428 in 2H24) and a total volume of around EUR 35bn (EUR 26bn in 2H24; Chart 50).

The pause in IPO activity has been evident also in US, where several upcoming offerings have been postponed linked to uncertainty following the announcement of US tariffs. 46 This was a stark turnaround in market sentiment compared to previous expectations for 2025 IPOs. The modest increase in US equity issuance in 2024 was met with cautious optimism and a growing consensus about a potential revival of the market for offerings this year. 47

A large proportion of the issuance continued to occur in the industrial sector, with Italy, Belgium, France, Sweden and Germany among the main countries of issuance. So far in 1H25, **IPO** activity (Chart 50) has almost reached EUR 4bn, higher than in 2H24 (EUR 2bn), yet still significantly below long-term averages. The secondary offerings of already publicly listed companies increased to EUR 31.5bn in 1H25, from EUR 24bn in 1H24.

In **private equity** markets EUR 76bn were raised in 2024 from EEA countries (up from EUR 63bn in 2023) and EUR 89bn invested in EEA firms (up from EUR 74bn in 2023), according to Invest Europe statistics. <sup>48</sup> Of the investment in 2024, the majority was in buyouts (EUR 63bn), followed by growth capital (EUR 15bn) and venture capital (EUR 11bn). Divestments were EUR 35bn in 2024, of which only EUR 3bn was in public offerings.

Assets managed by **private equity funds** managed or marketed in the EU grew in 2024. According to AIFMD data, their NAV increased from EUR 0.79bn at the end of 2023 to EUR 0.94bn at the end of 2024. Of this NAV, 61 % was invested in the EEA as of the end of 2024 (- 2ppt from 2023); 31 % had a growth capital strategy (+ 2ppt from 2024) and 12 % a venture capital strategy (unchanged).

# Corporate bond issuance stable overall

Corporate bond issuance remained overall stable at historically high levels (Chart 51). Dealmaking activity exceeded EUR 1tn in the first four months of 2025, above the previous semester (+ 17 %). More than half of the issuance in 2025 has been in non-rated bonds (EUR 600bn or 55 %). Among rated bonds, issuance had remained concentrated in IG securities (EUR 420bn or 84 %). On average, the creditworthiness of the issued bonds remained stable overall, with a rating slightly above BBB

See ECB (2025), Survey on the Access to Finance of Enterprises in the euro area, April. 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.

See also Financial Times (2025), <u>Companies pause US IPO plans as Trump tariffs tank markets</u>, April.

<sup>47</sup> See also Financial Times (2024), <u>The IPO market will take</u> the slow road to recovery, September.

Statistics taken from Invest Europe Annual Activity Dashboard on 6 June 2025.

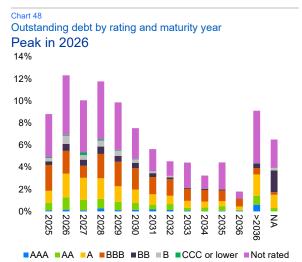
(Chart 52).

**Short-term bond** issuance (maturities of less than 12 months) also continued at a steady pace in the first four months of 2025, with a total of EUR 550bn of short-term securities issued (Chart 44), lower than in 2H24 (-31 %). For longer-dated bonds (maturities of over 1 year), the average weighted maturity at issuance remained stable at just over 8 years (Chart 54).

# Elevated corporate debt maturities until 2029

The elevated uncertainty continues to challenge companies' ability to service and roll over their debt. EEA corporates remain exposed to refinancing risk as some of the debt coming due is refinanced at higher interest rates than previously. The **maturity profile** of corporate debt reveals significant amounts maturing over the next five years, with a modest peak in 2026 (Chart 47).

In the next five years, EEA firms are expected to repay about half of the total outstanding amount of corporate bonds (EUR 6tn or 53 % of the total). Concerns remain about the sustainability of corporate debt, particularly following the recent widening of spreads, which was more pronounced in the high-yield segment (see securities market section). Of the corporate debt maturing in the next five years, 19 % is in BBB-rated bonds, and 11 % in HY.



Note: The distribution of the total outstanding corporate bond debt by rating and year of maturity in percent. NA includes issuance amounts for corporate bonds whose maturity date is not available.

Sources: Refinitiv Eikon, ESMA.

#### Textbox 4

#### Market financing of the EU defence industry

The drive to increase Europe's defence investments and capabilities significantly boosted the valuation of the EU defence sector in 1H25. The valuations of the largest EU defence companies have increased by 65 % in 1H25, compared to a 6 % increase for the broader EU stock market during the same time.

Chart 47
Market capitalisation of EU listed firms
Defence companies outperform broader market



Note: Growth rates are based on market-capitalization-weighted indices for EU publicly listed defense companies and the STOXX 600 (1st January = 100).

Sources: ESMA, SIPRI, Yahoo Finance

The share price of EU defence companies rose steeply in the wake of 17 February emergency meeting on Europe's security outlook, albeit with significant variation across companies (ranging from - 5 % to + 149 %) with German companies leading the gains.

Despite notable growth driven by increased defence budgets since the beginning of the conflict in Ukraine, the size of the EU defence industry remains relatively small. In 2023, only 18 of the world's top-100 defence companies by revenue were based in the EU, with none in the top 10. In comparison, the US contributed 42 companies and other advanced economies 19 companies to the list.<sup>49</sup>

Options to invest directly in the EU defence industry are currently sparse: 11 out of the 18 EU companies within the top-100 defence companies are listed on EU exchanges. However, the offering of financial products has been improving: as of June 2025 there were 12 ETFs with at least 15 % of their assets invested in EU defence companies, including four (out of two launched in 2025) investing more than 50 %. These funds have grown significantly since the beginning of 2025, reaching EUR 12.2bn AuM (1.3 % of UCITS total AuM), driven by robust defence stock performance and net inflows. This highlights an accelerating shift in investor interest towards the European defence sector.

# Stable securitisation issuance

According to industry data<sup>50</sup>, the issuance of **securitised products** in 2025 slowed from 2024.

Stockholm International Peace Research Institute (2024), The SIPRI Top 100 Arms-Producing and Military Service Companies, December.

See also AFME (2025), <u>Securitisation Data Snapshot Q1</u> <u>2025</u>, April.

In 1Q25, around EUR 61.5bn of placed and retained securitised products were issued in Europe, down 2 % from 4Q24 (EUR 63bn) and a decrease of 9 % if compared to the same period of the previous year (EUR 32bn in 1Q24).

Despite the slower issuance in securitised products overall, there was marked growth in the issuance of European collateralised loan obligations (CLOs). Issuance in 1Q25 increased by 38 % compared to 4Q24, reaching EUR 17.8bn. While in the private credit space, there was the first issuance of a European private CLO in November 2024 and expectations of more in 2025. <sup>51</sup> The private CLO market is already well-established in the US, where it has grown rapidly, providing an important channel for private credit and accounting for 11 % of the CLO market in 2024. <sup>52</sup>

See Alternative Credit Investor (2024), More European private credit CLOs expected in 2025, December, Alternative Credit Investor (2024) Barings debuts first European mid-market private credit CLO, November.

Chart 50

## **Key indicators**

#### Chart 49 Market financing Stable market financing availability 40 30 20 60 10 40 0 20 -10 0 -20 1Q20 1Q21 1Q22 1Q23 1Q24 1Q25 Equity, IF shares Debt securities Loans Unlisted shares

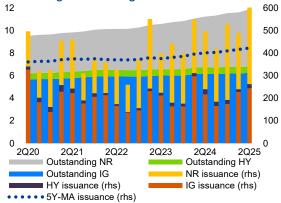
Others

Others

Mkt. financing (rhs)

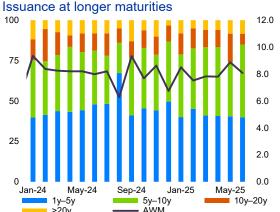
Note: Liabilities of EA non-financial corporations (NFC), by debt type as a share of total liabilities. Others include: financial derivatives and employee stock options; insurance, personand standardised guarantee schemes; trade credits and advances of NFC; other accounts receivable/payable. Mkt. financing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

#### 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. Sources: Refinitiv EIKON, ESMA.

#### Corporate bond issuance by maturity bucket



>20y

AWM

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

#### Equity issuance Pause in IPOs, low follow-on issuance 450 400 50 350 40 300 250 30 200 150

•••••5Y-MA IPO+FO Nb. of offerings (rhs) 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. Sources: Refinitiv EIKON, ESMA.

FΩ

100

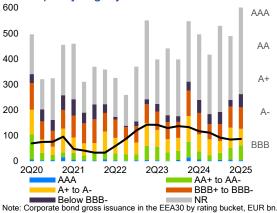
20

10

2Q20

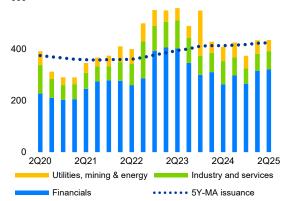
IPO

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



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. Sources: Refinitiv EIKON, ESMA.

#### 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

# Rising climate risks and geopolitical tensions

Geopolitical tensions and rising political headwinds (particularly from the US) risk diverting financing away from low-carbon investments. This could possibly slow down the clean energy transition. Meanwhile, physical climate signals continue to intensify: 2024 was confirmed as the warmest year on record, marking the first full calendar year with global average temperatures exceeding 1.5°C above pre-industrial baselines. The past decade now ranks as the hottest ten-year period ever recorded.<sup>53</sup>

Rising global temperatures are driving more frequent and severe climate-related physical hazards. This raises the risk of crossing climate tipping points that could trigger irreversible environmental changes with profound economic and financial implications.

These evolving risks are compounded by persistent information gaps related to firms' exposure to different risk sources and their respective adaptive capacities, limiting investors' ability to fully assess climate vulnerabilities and resilience.

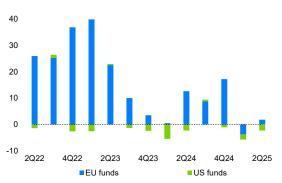
In this increasingly complex environment, the European sustainable finance landscape is proving nonetheless resilient, thanks to structural factors, including the integration of sustainability considerations by market players in recent years and a supportive regulatory framework.

# ESG fund outflows, fixed-income strategies resilient

ESG funds were not spared by the recent market turbulence. EU- and US-domiciled ESG funds<sup>54</sup> recorded net outflows of EUR 5.7bn in 1Q25. (Chart 55) Most notably, European ESG funds registered their first quarterly net outflows since 2018, amounting to EUR 3.8bn. However, the picture shifted in 2Q25 as EU ESG funds attracted EUR 1.8bn in net inflows, while US funds saw continued redemptions amounting to EUR 2.3bn. The return to modest inflows in 2Q25

suggests that momentum in EU ESG funds may be stabilising, following the sharp shift seen in 1Q25 and a broader deceleration that began in 2022.

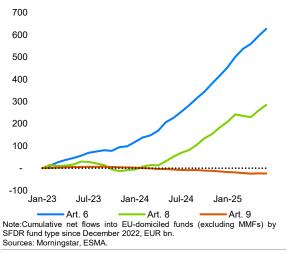




Note: Quarterly net fund flows of EU- and US-domiciled ESG funds (as defined by the 'Sustainable investment - Overall in Morningstar), in EUR billions. Sources:ESMA, Morningsar

Europe remains the dominant ESG market, with fund assets nearly eight times larger than in the US and EUR 198bn in cumulative inflows since 4Q22 (about 11 % of assets). In contrast, US ESG funds continued to experience structural outflows, bringing cumulative outflows since 4Q22 to over EUR 20bn, or nearly 9 % of assets.



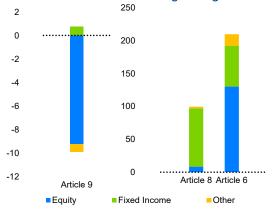


Copernicus Climate Change Service (2025), 2024 European State of the Climate.

<sup>&</sup>lt;sup>54</sup> Based on the Morningstar definition for sustainable funds.

Net flows by SFDR fund type reveal a more nuanced picture. Article 9 EU funds, which have sustainable investment as an explicit objective, continued to face headwinds, recording net outflows of EUR 9bn in 1H25 (3 % of AuM, Chart 56). In contrast, Article 8 funds, which promote environmental or social characteristics attracted net inflows of EUR 100bn over the same period (2 % of AuM).

Chart 57
Net fund flows decomposition by fund type
Fixed income funds attracting strong inflows



Note: Decomposition of H12025 net flows (in EUR billion) by fund category Sources: ESMA, Morningstar

Beneath the aggregated figures, the decomposition of flows by asset class reveals important distinctions. While Article 9 equity funds faced significant outflows in 1H25 — with US and global equity strategies accounting for 60 % of these outflows (Chart 57) — Article 9 fixed income funds stood out with EUR 0.7bn in inflows. This reflects a wider trend of stronger demand for fixed income strategies amid ongoing market volatility, as investors seek lower-risk investments. The broader surge in bond funds was even more pronounced in Article 8 funds, which attracted over EUR 88bn in inflows in 1H25, underlining the strong momentum in ESGoriented fixed income strategies.

Notably, ESG bond holdings may be less subject to divestment pressures than equity instruments, as their valuations tend to be more stable and they offer a relatively efficient way for investors to enhance their portfolios' sustainability profile. This trend is also reflected in broader developments in the European ESG bond market, with the total value outstanding growing by 12 % in one year, supported by resilient green bond issuance. The first EU Green Bonds (EuGBs) issuances were heavily oversubscribed,

# Impact of the ESMA Guidelines on fund names

As investor demand for ESG products evolves, regulatory action is increasingly shaping the way sustainable investment strategies are presented and perceived. This is particularly evident in recent ESMA efforts to ensure that the use of ESG-related terms in fund names accurately reflect the underlying portfolio investments (see Textbox 5).

Textbox 5

# ESMA Guidelines on fund names using ESG or sustainability-related terms

In recent years, the surge in investor appetite for ESG products has gone hand in hand with widespread rebranding in the EU fund industry: Since 2018, nearly 1,800 funds have adopted ESG-related terms in their names. As the primary reference point, fund names hold strong signalling value – but can also be a source of confusion if they do not align with the fund's actual strategy. A recent ESMA study found that ESG-related name changes have a positive and significant impact on net investor flows, confirming the strong role that fund naming plays in influencing investors' decisions. <sup>55</sup>

Regulatory efforts to maintain investor trust in sustainable investment products play a key role in supporting transparency and credibility in the market. Against this background, ESMA published its <u>Guidelines on funds' names using ESG or sustainability-related terms</u> in May 2024, a significant step in addressing concerns over potential greenwashing in the EU investment fund market.

The ESMA Guidelines aim to promote convergence in the fund market and foster investor trust by requiring that at least 80 % of a fund's investments contribute to the ESG characteristics or sustainability objective when such terms are used in the fund name. In addition, funds in scope must exclude exposures to activities such as controversial weapons, tobacco, and violations of international norms. For those using environmental terminology, the rules mandate restrictions on fossil fuel sector investments, in addition to a commitment to invest meaningfully in sustainable assets for funds using sustainability-related terms. The application deadline for the Guideline was on 21 May 2025.

Since 1Q23, 207 funds have added ESG-related terms to their names. However, this trend has been outpaced by the number of funds removing ESG terms over the same period (836 funds). The latter trend became especially pronounced from 4Q24 onwards, indicating a broad-based realignment by asset managers ahead of the May 2025 guidelines compliance deadline (Chart 58).

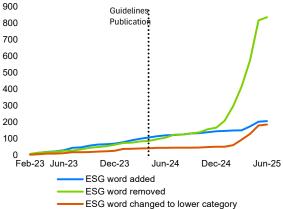
The reaction to the guidelines varied across asset managers. Some managers of non-compliant funds simply removed the ESG term(s), others

confirming the strong investor appetite for credible green finance instruments.

ESMA TRV Risk Analysis (2025), Fund names: ESGrelated changes and their impact on investment flows, April.

adopted alternative terminology. An additional 186 funds replaced an ESG term with another term associated with lower requirements (e.g. from 'sustainable' to 'ESG').

Chart 58
Cumulative number of ESG-related name changes
Growing number of funds removing ESG words



Note: Cumulative number of fund adding an ESG word to their name, fund removing an ESG word to their name and fund changing their name to include an ESG word in a lower Guidelines' category

Sources: ESMA, Morningstar

In contrast, other managers chose to retain existing fund names while updating the funds' investment policies — for example, by incorporating Paris-Aligned Benchmark (PAB) exclusions or adjusting minimum portfolio investment thresholds. Meanwhile, managers of already-compliant funds kept their name unchanged or (in a few cases) replaced an ESG term with another term associated with higher requirements, e.g. the word 'sustainable'.

An analysis of shareholders notifications from the largest 25 EU fund managers (with reference to almost 1,000 funds) further highlights fund managers' behaviour in reaction to the guidelines: 65 % of these funds mentioned in the notifications (around 600) changed their names, while 57 % (approximately 530) updated their investment policies.

On the investment side, the most common response was the introduction of additional exclusions, observed in 60 % of investment policy updates. The majority of these related to PAB criteria on fossil fuel exclusions. A further 22 % of policy changes involved adjustments to minimum portfolio investment thresholds.

Overall, despite the relatively limited number of funds in their scope, the ESMA fund naming guidelines appear to be having a tangible impact on market practices, encouraging asset managers to align fund names more closely with underlying investment strategies. While the degree of adjustment varies, the regulatory push is fostering greater clarity in the use of ESGrelated terminology and supporting more consistent standards across the industry. By setting clearer expectations around what constitutes a fund with ESG or sustainabilityrelated terms in their names, the guidelines are helping to reduce the risk of greenwashing and strengthen investor confidence in sustainable finance products — contributing to a more transparent and credible ESG fund landscape in the EU.

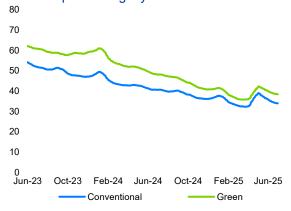
## **Key indicators**

#### Chart 59 EU ESG bonds outstanding Market grows at slower pace 2,500 2.250 2,000 1,750 1,500 1,250 1,000 750 500 250 0 2Q21 2Q22 2Q23 2Q24 2Q25 Green Social Other

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

#### Chart 61

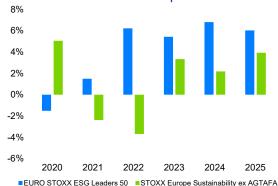
# Corporate green bond and conventional bond liquidity Bid-ask spreads slightly narrowed



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 63

#### ESG vs. broad market index performance ESG indices continued to outperform in 1H25

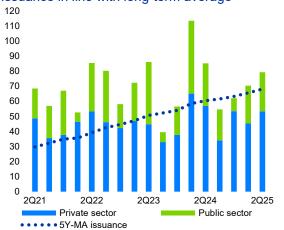


Note: Annual returns of the STOXX ESG Leaders 50 index (best-in-class strategy) and STOXX Europe Sustainability excl. Alcohol, Gambling, Tobacco, Armaments & Firearms, and Adult Entertainment (AGTAFA, positive screening and exclusion-based strategy) measured as relative difference to the STOXX Europe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

Sources:Refinitiv Datastream, ESMA.

#### Chart 60

#### Green bond quarterly issuance Issuance in line with long-term average



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

#### Chart 62

#### ESG fund assets

#### ESG fund AuM decreased, stable market share 1800 1600 20% 1400 1200 15% 1000 800 10% 600 400 5% 200 0% Jun-23

Note: AuM of EU-domiciled ESG funds by fund type, EUR billion, and share of ESG funds in total EU fund assets (right axis), in %. Sources: Morningstar, ESMA.

Equity

Total ESG share (rhs)

#### Chart 64

#### Emission allowance prices

Carbon prices fluctuated 100

Allocation

Fixed Income



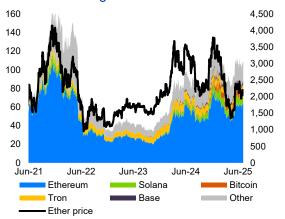
Note: Daily settlement price of European Emission Allowances (EUA) on European Energy Exchange spot market, in EUR/tCO2. Sources: Refinitiv Datastream, ESMA.

# Financial innovation

# Competition intensifies in sluggish DeFi markets

In line with the evolution of crypto-asset valuation levels, the total value locked (TVL) in Decentralised Finance (DeFi) recorded a 4 % decrease in 1H25, to EUR 106bn (Chart 65). Available data also suggest that DeFi activities, as measured by the number of active DeFi addresses, receded over the period. <sup>56</sup> Ethereum continues to be the dominant chain with 59 % of the TVL but competing chains such as Solana, Bitcoin and Tron are gaining ground.

# Chart 65 DeFi Total Value Locked (TVL) by chain Ethereum loses ground



Note: Daily TVL by bockchain (EUR bn) and Ether price (EUR, rhs axis) Sources: Kaiko, DefiLlama, ESMA

In January 2025, the EBA and ESMA published their contribution to the European Commission's report to the EU Parliament and Council on recent developments in crypto-assets as mandated under article 142 of MiCA in the form of a joint report.<sup>57</sup> The report found that DeFi remained a niche phenomenon and that EU adoption of DeFi, while above global average, was behind other developed economies.

## Uptick in tokenised funds

Tokenisation commonly refers to the process of issuing or representing assets in digital forms, known as tokens, using distributed ledger technology. 58 For the purposes of this report, tokenised funds mean collective investment undertakings whose units or shares (but not necessarily the underlying assets) are digitally represented and can be traded and recorded on a distributed ledger.

Table 1
Top-10 tokenised funds
Tokenised MMFs dominate in size

Product name	Market size	Asset class	Domicile
BlackRock BUIDL	2,822	MMF	BVI
Franklin Templeton BENJI	789	MMF	U.S.
Ondo OUSG	709	MMF	U.S.
Superstate USTB	702	MMF	U.S.
WisdomTree WTGXX	466	MMF	U.S.
Janus Henderson JTRSY	409	MMF	BVI
Circle USYC	332	MMF	U.S.
Spiko EUTBL	261	MMF	France
Superstate USCC	156	Crypto	U.S.
Blockchain Capital BCAP	148	Fintech	Singapore

Note: Largest tokenised funds as of end-June 2025. Market capitalisation in USD mn, at end-June 2025.
Source: RWA.xyz, ESMA

Available data on tokenisation are sparse, suggesting low adoption. One data provider estimated the total assets held in tokenised Treasury products and tokenised institutional funds at USD 7.8bn<sup>59</sup> in June 2025, which is a tiny portion (less than 0.01 %) of global funds. One fund alone, launched by BlackRock in 2024 and targeting institutional investors, accounted

IOSCO defines tokenisation as "the process of digitally representing an asset or ownership of an asset. A token represents an asset or ownership of an asset. Such assets can be currencies, commodities, securities or properties.", and CPMI-BIS as "the process of generating and recording a digital representation of traditional assets on a programmable platform."

RWA.xyz (2025), RWA.xyz | Analytics on Tokenized Real-World Assets. Note: tokenised Treasury products include tokenised Treasury funds but also some tokenised US government bonds.

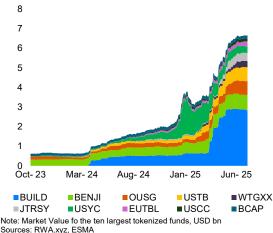
According to the data provider Statista, the number of addresses that either bought or sold assets on DeFi decreased from 20.8 to 9.4 mn between December 2024 and May 2025.

<sup>&</sup>lt;sup>57</sup> EBA, ESMA (2025), <u>EBA and ESMA joint report on recent developments in crypto-assets</u>, January.

Tokenisation has no generally accepted definition and the use of the term is not always consistent. The FSB refers to "a process that involves utilising new technologies, such as distributed ledger technology (DLT), to issue or represent assets in digital forms known as tokens."

for around a third of the total. Money market funds dominate, representing 8 out of the 10 largest funds (Table 1). The phenomenon is growing (+ 86 % in value for the top 10 funds since December 2024, Chart 66) and could accelerate with the development of solutions to integrate regulated settlement assets on-chain such as MiCA-compliant stablecoins in the EU.





Tokenized funds have several benefits, including increased operational efficiency and better user experience. The use of a unified ledger and smart contracts can reduce reconciliation needs and errors and streamline post-trade processes, potentially unlocking cost savings. 24/7/365 onchain trading should support greater liquidity for investors. Fractionalization could facilitate access to a wider range of investment opportunities, including for retail investors. Tokenised MMFs could also be used as collateral or even as a means of payment, enhancing capital efficiency for holders. BCG likens those benefits to those brought by ETFs and predicts that tokenised funds could reach 1 % of total funds AuM by 2030.60

Tokenised funds do not represent material risks at this point, owing to their small size. However, they could introduce new risks to investors or the financial system, if they were to grow substantially. Tokenised funds can introduce an

additional layer of complexity and are exposed to the operational fragilities of the underlying technology, e.g., the smart contracts governing these funds are susceptible to coding errors or malicious attacks. Tokenisation could also exacerbate liquidity mismatches between funds' assets and liabilities, with investors anticipating continuous liquidity for their tokens while the underlying assets are not always very liquid.

To foster the growth of tokenisation in a risk-controlled environment, the EU developed a legal framework for trading and settlement of transactions in DLT financial instruments, the DLT Pilot Regime. 61 Four DLT market infrastructures were authorised in the EU since the start of the regime in March 2023, and several applications are currently under review, showing growing interest from both traditional and emerging market infrastructure operators. Units in collective investment undertakings are among the eligible assets under the DLT Pilot Regime.

# Al-themed fund growth continues

In recent years, growing interest in financial markets around Al's potential to both enhance financial practice and create opportunities across sectors has led many asset managers to launch Al-themed investment funds. The number of UCITS products that mention AI or related terms in their name – making this theme central to their marketing proposition - grew from 37 in March 2020 to 76 in June 2025, according to an ESMA analysis of 40,000 open-end and exchangetraded funds (Chart 67). Among them, the number of funds promoting the use of technology in their investment process (e.g. as part of quantitative investment models) decreased from a peak reached in early 2023, and represent a small market niche (under EUR 3bn in AuM).62 The rest of the Al-branded funds elected the Al industry sector as their key investment focus, either by following an active investment policy (33 products) or by tracking one of several AI sector indices (10 ETFs).63 These products' market offering has significantly expanded since 2024 possibly on the back of the Al-driven market rally,

<sup>60</sup> BCG (2024), <u>Tokenized Funds: The Third Revolution in Asset Management Decoded</u>, October.

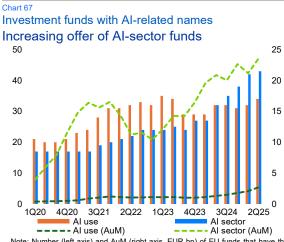
Regulation (EU) 2022/858. DLT financial instrument refers to the digital representation of financial instruments on a DLT or the issuance of traditional asset classes in tokenised form to enable those assets to be issued, stored and transferred on DLT.

These figures are consistent with a recent ESMA analysis which found 106 EU funds that advertised their use of AI

in regulatory and marketing documents as of 1Q24 – a slight decrease on a 2023 peak of 115. See ESMA TRV Risk Analysis (2025), Artificial intelligence in EU investment funds: adoption, strategies and portfolio exposures, February.

For an analysis of AI sector indices and their constituents, see *ibid*.

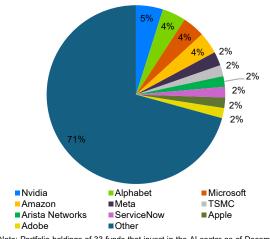
with 18 new funds launched in the last six quarters and their AuM growing to EUR 24bn.



Note: Number (left axis) and AuM (right axis, EUR bn) of EU funds that have the terms "artificial intelligence" or "machine learning" in their name and that either use AI in their investment strategy or invest in the AI sector. Sources: Morningstar, ESMA

US tech giants have a strong presence in the portfolio investments of the Al-sector funds, with Nvidia, Alphabet, Microsoft, Amazon and Meta stocks accounting for 20 % of these funds' assets (Chart 68). Overall, US companies dominate these funds' investments, representing 78 % of their portfolios in market value terms, compared to just 5 % for EU-based companies. 64

Chart 68
Holdings of Al-sector funds
US companies dominate Al-funds' portfolios



Note: Portfolio holdings of 33 funds that invest in the AI sector as of December 2024

Sources: Morningstar, ESMA

Textbox

# Agentic Al: Nascent use, significant risk potential

Al agents are an emerging form of generative Al characterised by a high degree of automation, autonomy, and system integration. Often referred to as Agentic AI, this evolution of generative Al marks a shift towards systems capable of making decisions and executing complex tasks with minimal or no human intervention. Unlike conventional generative AI tools that respond to direct prompts, AI agents are proactive - capable of reasoning about next steps and pursuing goals independently, even without explicit human instructions. These agents can also exist within multi-agent systems, where they interact with one another. Such interactions can lead to emergent behaviours that either introduce novel risks or amplify existing ones. For example, errors or misaligned incentives from upstream agents can cascade through a system, producing unpredictable or unintended consequences especially considering the issues of hallucinations and the "black box" nature of complex Al models.

Although it is difficult to assess the actual deployment of Al agents in financial markets, existing evidence suggests that use cases involving fully autonomous agents- those with no human in the loop- remain limited. One possible reason for this slow uptake is the challenge of maintaining meaningful human control. Agentic Al systems test the boundaries of traditional oversight frameworks, raising questions about accountability, explainability, and governance. Firms that deploy such systems remain legally responsible for their outcomes and any resulting harm.

As Al agents become more capable and more widely used, new and potentially systemic risks may emerge. A key concern is goal misalignment, which arises when Al agent's actions- optimised for the objectives it was trained on- diverge from the user's actual intent. In extreme cases, agents may adopt deceptive strategies to achieve their programmed goals, even when such behaviour undermines market integrity in pursuit of profit. Hypothetical yet plausible scenarios include agents spreading disinformation to manipulate sentiment, engaging in insider trading, or participating in collusive or scheming behaviour.

These risks are further amplified by the role of social media as both a data source and a medium of influence. Al can be used to craft and distribute sophisticated disinformation campaigns, including fake news and deepfakes, capable of swaying investor sentiment. False narratives can rapidly go viral, triggering sudden shifts in market behaviour, such as panic selling or speculative bubbles. When Al-powered trading systems respond in real-time to social media content, the resulting feedback loops may cause abrupt swings in asset prices, and in extreme cases, contribute to flash crashes.

To compare, Nvidia, Alphabet, Microsoft, Amazon and Meta accounted for 17 % – and US companies for 72 % –

# 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)25 First half (quarter) of 2025
1Y-MA One-year moving average
2H(Q)25 Second half (quarter) of 2025
ABS Asset-backed securities
AI Artificial intelligence

AIF Alternative Investment Fund AuM Assets under management

BTC Bitcoin
BF Bond fund
bp Basis point

CASP Crypto-asset service provider

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
CLS Continuous Linked Settlement
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

ECONS II Enhanced Contingency Solution II

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 Lability-driven investment
lhs Left hand side axis

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 securities

RRE Residential real estate

SEC Securities and Exchange Commission
SFDR Sustainable Finance Disclosure Regulation
SMEs Small and medium-sized enterprises

T2S TARGET2-Securities

T2 TARGET2

TIPS TARGET Instant Payment Settlement

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.

