

## **TRV Statistical Annex**

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



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

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## Market environment

## A.1 EU market price performance

140

120



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.

## A.3 Economic policy uncertainty 800 40 700 600 30 500 400 20 300 200 10 100 0 0 Jun-23 Oct-23 Feb-24 Jun-24 Oct-24 Feb-25 Jun-25 Europe US Global VSTOXX (rhs)

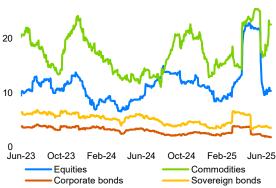
Note: Economic Policy Uncertainty Index (EPU), developed by Baker et al. (www.policyuncertainty.com), based on the frequency of articles in European newspapers that contain the following triple: "economic" or "economy", "uncertain" or "uncertainty" and one or more policy-relevant terms. Global aggregation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

## **EUR** exchange rates 120 115 110 105 100 95 Jun-23 Oct-23 Feb-24 Jun-24 Oct-24 Feb-25 Jun-25 USD JPY GBP CHF 1Y-MA USD Emerging

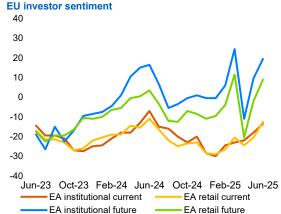
Note: Spot exchange rates to EUR. Emerging is an average of spot exchange rates for CNY, BRL, RUB, INR, MXN, IDR and TRY weighted by GDP as of start date year. 01/04/2023=100. Increases in value represent an appreciation of EUR. 1Y-MA USD=one-year moving average of the USD exchange rate. Sources: ECB, IMF, ESMA.

## A.2 EU market volatilities 30



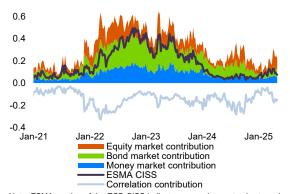
Note: Annualised 40D volatility of return indices on EA equities (Datastream regional index), global commodities (S&P GSCI) converted to EUR, EA corporate and sovereign bonds (iBoxx EUR, all maturities), in %. Sources: Refinitiv Datastream, ESMA.

## 4.4

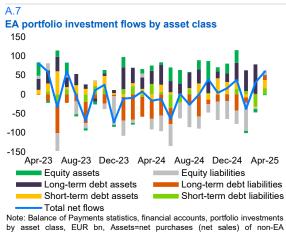


Note: Sentix Sentiment Indicators for the EA retail and institutional investors on a ten-year horizon. The zero benchmark is a risk-neutral position. Sources: Refinitiv Datastream, ESMA.

## A.6 ESMA composite indicator of systemic stress



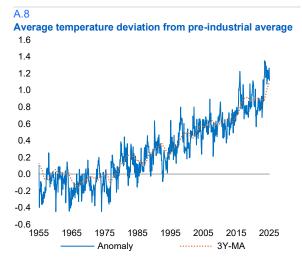
Note: ESMA version of the ECB CISS indicator measuring systemic stress in securities markets. It focuses on three financial market segments: equity, bond and money markets, aggregated through standard portfolio theory. It is based on securities market indicators such as volatilities and risk spreads.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



Total net flows

Note: Balance of Payments statistics, financial accounts, portfolio investments by asset class, EUR bn, Assets=net purchases (net sales) of non-EA securities by EA investors. Liabilities=net sales (net purchases) of EA securities by non-EA investors. Total net flows=net outflows (inflows) from (into) the EA. In the chart, positive values are investment outflows from the EA, negative values are investment inflows into the EA.

Sources: ECB, ESMA.



Note: Monthly global surface temperature anomalies relative to pre-industrial average (1850-1900), in degrees Celsius.
Sources: Met Office Hadley Centre, ESMA.

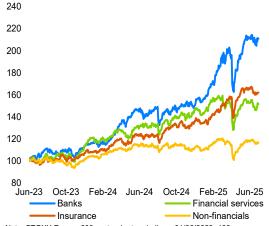
## **Markets**

## **Equity markets**



Note: Regional equity return indices. 01/06/2023=100. Sources: Refinitiv Datastream, ESMA.

## EU equity price performance by sector



Note: STOXX Europe 600 sectoral return indices. 01/06/2023=100. Sources: Refinitiv Datastream, ESMA.



Note: Implied volatility of EURO STOXX 50 (VSTOXX) and S&P 500 (VIX),

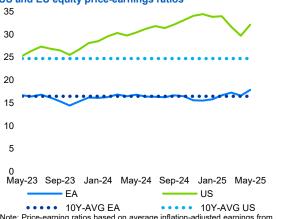
Sources: Refinitiv Datastream, ESMA.

## A.10 EU equity price performance of national indices



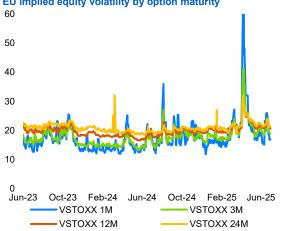
Note: European equity return indices. 01/06/2023=100. Sources: Refinitiv Datastream, ESMA.

## US and EU equity price-earnings ratios



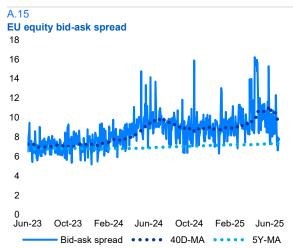
Note: Price-earning ratios based on average inflation-adjusted earnings from the previous 10 years (cyclically adjusted price-earning ratios). Averages computed from the most recent data point up to 10 years before Sources: Refinitiv Datastream, ESMA.

## EU implied equity volatility by option maturity



Note: EURO STOXX 50 implied volatilities, measured as price indices, in %.

Sources: Refinitiv Datastream, ESMA.



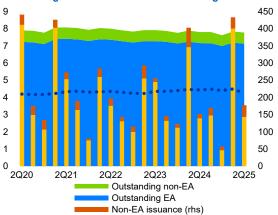
Note: Liquidity measure as median of the bid-ask price percentage difference for the current EEA30 constituents of STOXX Europe Large 200, in bps. Sources: Refinitiv Datastream, ESMA.



Note: Composite indicator of illiquidity in the equity market for the current STOXX Europe Large 200 constituents, computed by applying the principal component methodology to six input liquidity measures (Amihud illiquidity coefficient, bid-ask spread, Hui-Heubel ratio, turnover value, inverse turnover ratio and market efficiency coefficient). The indicator range is between 0 (higher liquidity) and 1 (lower liquidity). Sources: Refinitiv Datastream, ESMA

## Sovereign-bond markets

EU sovereign bond issuance and outstanding

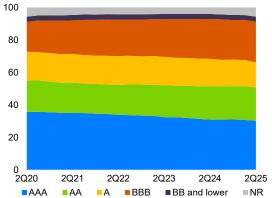


Note: Sovereign bond gross issuance in the EEA30 (rhs), EUR bn, and outstanding amounts, EUR tn. Maturities < 12 months are excluded Sources: Refinitiv EIKON, ESMA.

## A.18 EU sovereign bond issuance by credit rating 450 AAA 400 350 300 AA 250 200 150 100 50 0 2Q20 2022 2021 2023 2024 2Q25 AAA AA+ to AA-Below AA-■ NR

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

## EU sovereign bond rating distribution

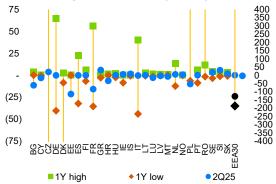


Note: Outstanding amount of sovereign bonds in the EEA30 as of issuance date by rating category, in % of the total. Maturities < 12 months are

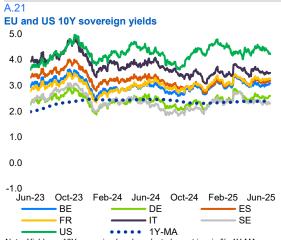
Sources: Refinitiv EIKON, ESMA.

## A.20

## Net EU sovereign bond issuance by country

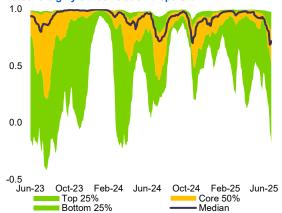


Note: Quarterly net issuance of EEA30 sovereign debt by country, EUR bn. Net issuance calculated as the difference between new issuance over the quarter and outstanding debt maturing over the quarter. Highest and lowest quarterly net issuance in the past year are reported. EEA30 total on right-hand scale. All maturities are included. Sources: Refinitiv EIKON, ESMA.



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.

## A.23 EU sovereign yield correlation dispersion



Note: Dispersion of correlations between 10Y DE Bunds and 15 other EU27 countries' sovereign bond redemption yields over a 60-day rolling window. Sources: Refinitiv Datastream, ESMA.

## A.25

## EU 10Y sovereign bond volatility

25 20 15 5 Jun-23 Oct-23 Feb-24 Jun-24 Oct-24 Feb-25 Jun-25 BE – DE - ES FR – IT SF • US • • • • 1Y-MA

Note: Annualised 40-day volatility of 10Y sovereign bonds, selected countries, in %. 1Y-MA=one-year moving average of EA 10Y bond indices computed by Datastream.
Sources: Refinitiv Datastream, ESMA.

A.22 EU 10Y sovereign spreads 3.5 3.0 2.5 2.0 1.5 1.0 0.5 0.0 -0.5 Jun-23 Oct-23 Feb-24 Jun-24 Oct-24 Feb-25 Jun-25 ES --GR ---IE -—IT -

Note: Selected 10Y EA sovereign bond risk premia (vs. DE Bunds), in %. Sources: Refinitiv Datastream, ESMA.

## A.24

## EU equity-sovereign bond returns correlation dispersion 1.0



Note: Dispersion of the correlation between daily returns of national equity indices and national sovereign debt return index, for 16 countries in the EU27, over a 60-day rolling window. Sources: Refinitiv Datastream, ESMA

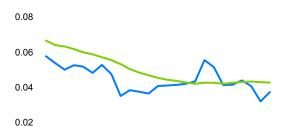
## A.26

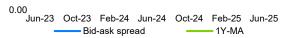
## Global sovereign CDS spreads



US 1Y-MA Europe
Note: Datastream CDS sovereign indices (5 years, mid-spread), in bps.
Sources: Refinitiv Datastream, ESMA.

## A.27 EU sovereign bid-ask spread 0.10





Note: Bid-ask spread as a monthly average of bid-ask spreads weighted by trading volumes for bonds both traded on one of 12 EU27 domestic markets (AT, BE, DE, ES, FI, FR, GR, IE, IT, NL, PT and SI) and Euro MTS, in EUR. Sources: MTS, ESMA.

## A.29

## EU sovereign bond liquidity



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

## A.31

## EU sovereign bond futures liquidity

1.00



Note: One-month moving averages of the Hui-Heubel illiquidity indicator for selected 10Y sovereign bond futures, in %. Lower figures mean more liquidity and vice-versa

Sources: Refinitiv Datastream, ESMA.

## EU sovereign bond yield dispersion 1.0 0.5 0.0

-0.5
Jun-23 Oct-23 Feb-24 Jun-24 Oct-24 Feb-25 Jun-25
Top 25%
Bottom 25%
Oct-24 Feb-25 Jun-25
Core 50%
Median

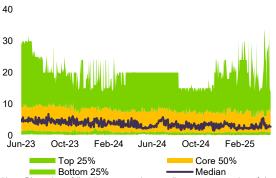
Note: Dispersion of correlations between 10Y DE Bunds and 15 other EU27

countries' sovereign bond redemption yields over a 60-day rolling window. Sources: Refinitiv Datastream, ESMA.

## A.30

## EU sovereign bond liquidity dispersion

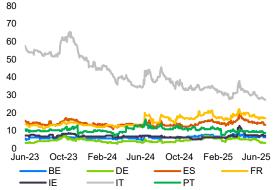
50



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

## A.32

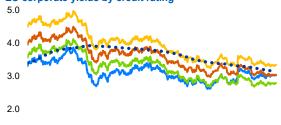
## EU sovereign bond redenomination risk



Note: Difference between 5Y CDS spreads under the 2014 ISDA definition (where debt redenomination is a credit event), and under the 2003 ISDA definition (where it is not), in bps. Sources: Refinitiv Datastream, ESMA.

## **Corporate-bond markets**

## EU corporate yields by credit rating



1.0 Feb-24

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

Jun-24

Oct-24

Feb-25

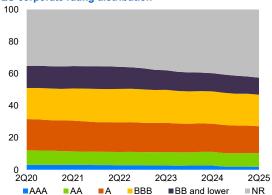
Jun-25

## A.35

.un-23

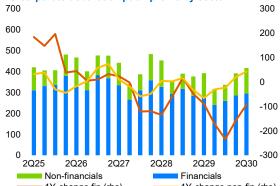
## EU corporate rating distribution

Oct-23



Note: Outstanding amount of corporate bonds in the EEA30 as of issuance date by rating category, in % of the total. Maturities < 12 months are excluded. Sources: Refinitiv EIKON, ESMA.

## A.37 EU corporate debt redemption profile by sector



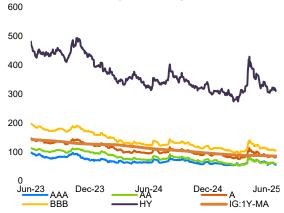
1Y-change fin (rhs)

1Y-change non-fin (rhs)

Note: Quarterly redemptions over 5Y-horizon by EEA30 private financial and non-financial corporates, EUR bn. 1Y-change-difference between the sum of this year's (four last quarters) and last year's (8th to 5th last quarters) redemptions. Maturities < 12 months are excluded.

## A.34

## EU corporate spreads by credit rating



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.

## EU corporate bid-ask spread and Amihud indicator

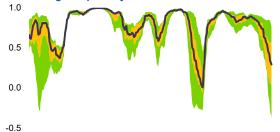


Note: Markit iBoxx EUR Corporate bond index bid-ask spread, in bps, computed as a one-month moving average of the constituents bid-ask spread.

1Y-MA=one-year moving average of the bid-ask spread. Amihud liquidity coefficient index between 0 and 1. Highest value indicates less liquidity. Sources: IHS Markit, ESMA.

## A.38

## EU sovereign-corporate yield correlation

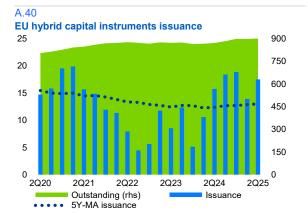




Note: Dispersion of correlation between Barclays Aggregate for corporate and 10Y sovereign bond redemption yields for AT, BE, ES, FI, FR, IT and NL.

## A.39 EU covered bond spreads 125 100 75 50 25 0 Jun-23 Dec-23 Jun-24 Dec-24 Jun-25 AA 1Y-MA

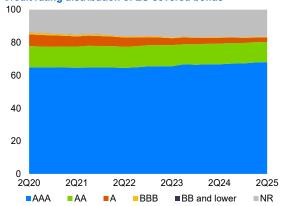
Note: iBoxx EUR covered bond option-adjusted spreads by rating, in bps. 1Y-MA=one-year moving average of all indices. Sources: Refinitiv Datastream, ESMA.



Note: Hybrid capital instruments gross issuance in the EEA30, EUR bn, and outstanding amounts (rhs), EUR tn. Maturities < 12 months are excluded. According to Refinitiv EIKON classification, hybrid capital refers to bonds having the qualities of both an interest-bearing security (debt) and equity. Sources: Refinitiv EIKON, ESMA.

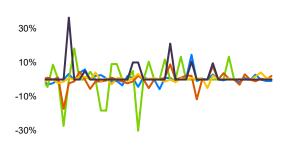
## **Credit quality**

A.41 Credit rating distribution of EU covered bonds



Note: Outstanding amount of covered bonds in the EEA30 as of issuance date by rating category, in % of the total. Maturities < 12 months are excluded. Sources: Refinitiv EIKON, ESMA.

## A.43 EU non-financial corporate rating changes

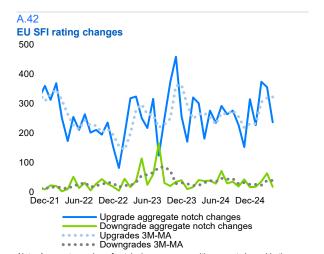


-50% Dec-21 Jun-22 Dec-22 Jun-23 Dec-23 Jun-24 Dec-24 Jun-25 ES ---GR <del>-</del> IE <u>—</u> IТ

Note: Monthly ratings drift of non-financial corporate issuers for ES, GR, IE, IT and PT, in % of outstanding ratings. Ratings from Fitch Ratings, Moody's and S&P.

Sources: RADAR, ESMA

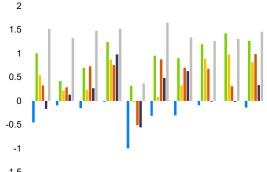
50%



Note: Aggregate number of notch changes on securities assests issued in the EEA with long-term ratings, for upgrades and downgrades. Sources: RADAR, ESMA.

## Size of EU credit rating changes

A.44

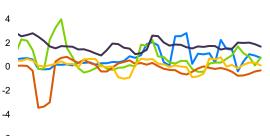


2016 2017 2018 2019 2020 2021 2022 2023 2024 2025

■ Non-financials Covered bond Financials Insurance ■ Sovereign ■ Structured finance Note: Average change in notches for long term EEA ratings for issuers and instruments (excl. ICAP and CERVED).
Sources: RADAR, ESMA.

## A.45

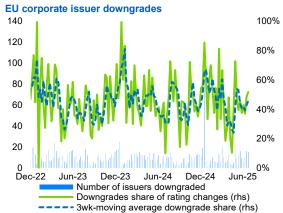
## EU credit ratings drift by asset class 6





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.

## A 47

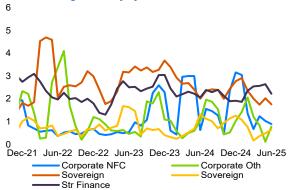


Note: Number of EEA corporate issuers with at least one bond downgraded, and ratio of dowgraded corporate issues over upgrades and downgrades (3 week moving average). Issuers with same reported parent treated as one

Sources: RADAR, ESMA.

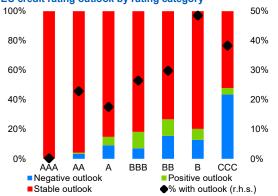
## A.46

## EU credit ratings volatility by asset class



Note: 3-month moving average of volatility 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 - nonfinancials. Sources: RADAR, ESMA.

## EU credit rating outlook by rating category



Note: Distribution of outlooks for EEA corporate non financial instruments (ISINs) with outlook rated by the Big 5 (Fitch, Moody's, S&P, Scope and DBRS) by category value over the total ratings per category value. Cut-off date 30 June 2025.

Sources: RADAR, ESMA

## Short selling

## Number of EU shares by net short position level

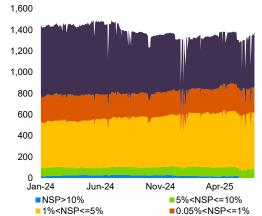


Note: Average NSP and average NSP weighted by market capitalisation for EEA shares. Only ISIN with NSPs above the legal treshold of 0.1% are considered, market capitalisation at the beginning of the year used for

Source: SSREP, FITRS, NCAs, ESMA.

## A.50

## Net short positions in EU financial vs non-financial shares

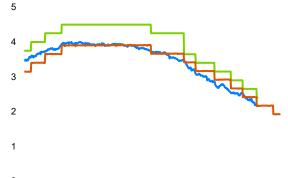


Note: Distribution of EEA shares by NSP value intervals, in number of ISIN. Sources: SSREP, NCAs, ESMA.

## **Money markets**

## A.51

## Euro area interest rates



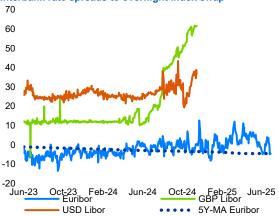
Oct-23 Feb-24 Jun-24 Oct-24

Note: EA money market interest rates, in %. Sources: Refinitiv Datastream, ESMA.

## A.53

Jun-23

## Interbank rate spreads to overnight index swap

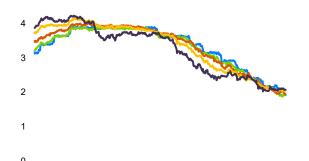


Note: Spreads between 3M interbank interest rates and 3M overnight index swaps, in bps. USD and GBP Libor discontinued at end-24. Sources: Refinitiv Datastream, ESMA.

A.52

## **Euribor rates by maturity**

5



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

- 3M

6M -

- 1Y

Note: Euribor interest rates by maturity, in %. Sources: Refinitiv Datastream, ESMA.

- 1M

## A.54

Jun-23

Feb-25 Jun-25

## Interbank overnight activity

1W



■ ESTR SONIA

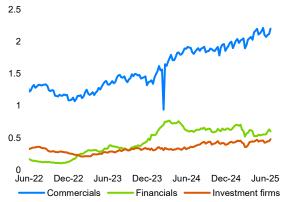
Note: 1M-MA of daily lending volumes on Euro short-term rate (€STR), EUR bn, and Sterling Overnight Index Average (SONIA), GBP bn.

Sources: ECB, Refinitiv EIKON, ESMA.

## **Commodities**

## Δ 55

## **Dutch Natural Gas Futures open interest**



Note: Open interest on Dutch Natural Gas Futures by commercial, financials traders (funds and other financial institutions) and investment firms in bn. Spikes might reflect data quality issues

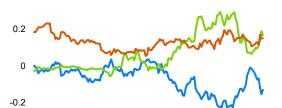
Spikes might reflect data quality issues.

Sources: ESMA Weekly Commodities Derivatives Positions Reporting, ESMA

## A 56

0.4

## **Dutch Natural Gas Futures net positions**

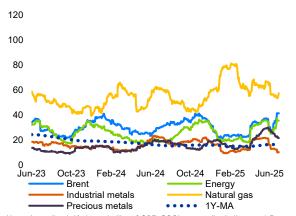




Note: Net number of positions (long minus short) of Dutch Natural Gas Futures held by commercials and financials traders (funds and other financial institutions) and investment firms in billions. Spikes might reflect data quality issues.

Sources: ESMA Weekly Commodity Derivative Positions Reporting, ESMA.

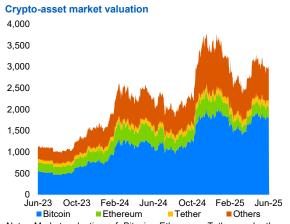
## A.57 Commodity derivatives realised volatility



Note: Annualised 40-day volatility of S&P GSCI commodity indices and Brent price, in %. 1Y-MA=one-year moving average computed using S&P GSCI. Sources: Refinitiv Datastream, ESMA.

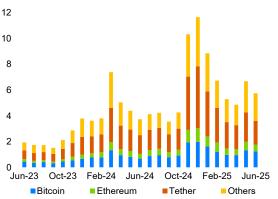
## Crypto-assets

## A 58



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

A.60 Trading volume by crypto-asset

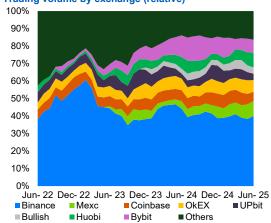


Note: Trading volumes of Bitcoin, Ethereum, Tether and other crypto-assets, in EUR tn. Sources: CoinMarketCap, ESMA.

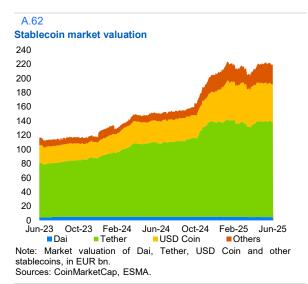
A.59 Crypto-assets prices 180 160 140 120 100 80 60 40 20 Jan-25 Feb-25 Mar-25 Apr-25 May-25 Jun-25 Binance Coin Bitcoin Dogecoin Ether - Solana Ripple

Note: Indexed price of selected crypto-assets (price of 31th December 2024 = 100) Sources: Kaiko, ESMA

## A.61 Trading volume by exchange (relative)



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



## A.63 Stablecoins trading volume 6.0 5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1 0 0.5 0.0 Jun-23 USD Coin Dai Tether Others

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

Sources: CoinMarketCap, ESMA.

CME futures



## Crypto asset price volatilities 150 125 100 75 50 25 0 Jun- 23 Oct- 23 Oct- 24 Feb- 25 Jun- 25 Feb- 24 Jun- 24 Bitcoin Ethereum EUR/USD Gold EURO STOXX 50

## A.65 **Bitcoin futures market** 50 45 40 25 35 30 0 25 -25 20 15 -50 10 -75 5 -100 Jun-23 Oct-23 Feb-24 Jun-24 Oct-24 Feb-25 Jun-25

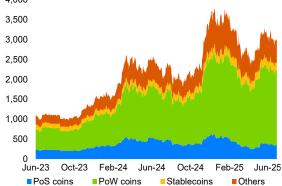
Note: Total open interest in Bitcoin futures, in thousand of contracts, and change in monthly average total open interest, in %. Sources: Refinitiv Datastream, ESMA.

■ ICE futures —

Monthly change

## Note: Annualised 30-day historical volatility of EURO STOXX 50, EUR/USD spot rate returns and USD-denominated returns for Bitcoin, Ethereum and gold, in %. Sources: Refinitiv Datastream, ESMA.

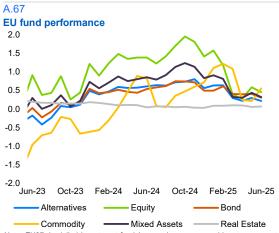
## A.66 Crypto asset consensus mechanisms 4,000



Note: Market valuation of crypto-assets by consensus mechanism, in EUR bn. PoW=Proof-of-Work, PoS=Proof-of-Stake. Stablecoins only include Binance USD, Tether and USD Coin.

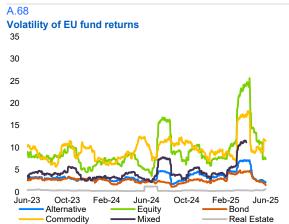
## Asset management

## **Fund industry**



Note: EU27-domiciled investment funds' annual average monthly returns, asset

Sources: Thomson Reuters Lipper, ESMA.



Note: Annualised 40D historical return volatility of EU27 domiciled mutual funds, in

Sources: Thomson Reuters Lipper, ESMA.

## A.69 EU fund assets by market segment

## 6 3

Aug-23 Dec-23 Apr-24 Dec-24 Apr-25 Equity Alternative - Bond

Other

Real estate

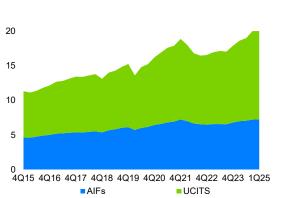
Note: AuM of EA funds by fund type, EUR tn.

Sources: ECB, ESMA.

Mixed

## A.70

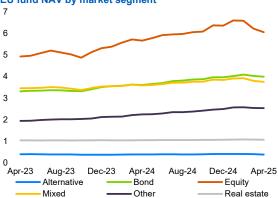
## EU fund NAV by legal form



Note: NAV of EEA30 funds, EUR tn.

Sources: EFAMA, ESMA.

## EU fund NAV by market segment



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

## EU fund leverage by market segment 1.60 1.55 1.50 1.45 1.40

1.35 1.30 1.25 1.20 1.15 1.10 1.05 1.00 Apr-23 Aug-23 Dec-23 Apr-24 Aug-24 Dec-24 Apr-25 - Alternative Bond - Equity Other - Real estate

Note: Leverage of EA investment funds by fund type computed as the AuM/NAV

## A.73 EU fund flows by fund type

15%

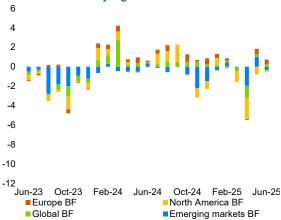




Note: EU27-domiciled funds' quarterly flows, in % of NAV. Sources: Refinitv Lipper, ESMA.

## A 75

## EU bond fund flows by regional investment focus

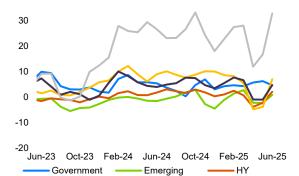


Note: EU27 bond fund montlhy flows by regional investment focus, in % of NAV.

## A.77

## Net flows in EU bond funds 40

- Corporate



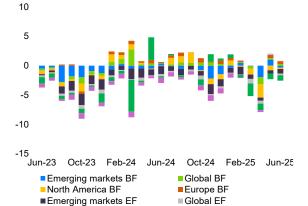
Note: Two-month cumulative net flows for EU27 bond funds, EUR bn. Funds investing in corporate and government bonds that qualify for another category are only reported once e.g. funds investing in emerging government bonds reported as Emerging; funds investing in HY corporate bonds reported as HY. Sources: Refinitiv Lipper, ESMA.

MixedBonds

- Other

## A.74

## EU fund flows by regional investment focus



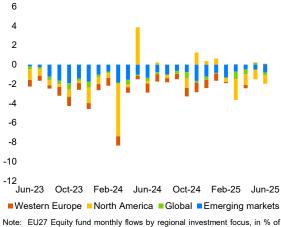
Note: EU27 bond and equity funds (BF and EF) montlhy flows over time since 2004 by regional investment focus, in % of NAV. Sources: Refinitiv Lipper, ESMA.

■Europe EF

## A.76

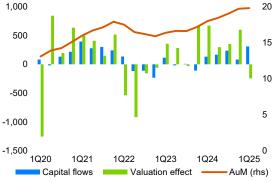
## EU equity fund flows by regional investment focus

■North America EF

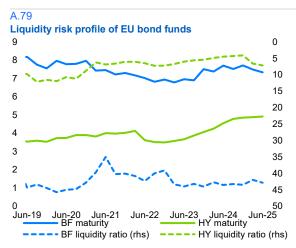


Sources: Refinitiv Lipper, ESMA.

## Net asset valuation of EU funds

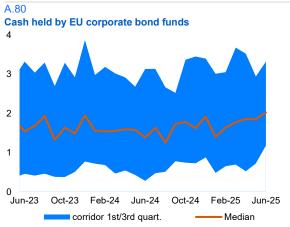


Note: Net valuation effect related to the AuM of EA investment funds, computed as the intraperiod change in AuM, net of flows received in the respective period. Capital flows and valuation effects in EUR bn. AuM expressed in EUR tn. Sources: ECB, ESMA.

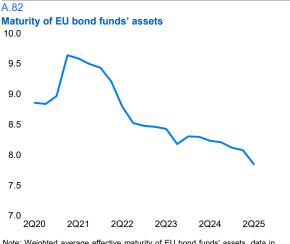


Note: Quarterly effective average maturity of EU27 fund assets, in years; ESMA liquidity ratio (rhs, in reverse order). Sources: Refinitiv Lipper, ESMA.

## A.81 Credit quality of EU bond funds' assets 6.0 5.5 5.0 4.5 4.0 BBB 3.5 3.0 2.5 Jun-19 Jun-20 Jun-21 Jun-22 Jun-23 Jun-24 Jun-25 -BF - HY Note: Quarterly average credit quality (S&P ratings; 1= AAA; 4= BBB; 10 = D) for EU27-domiciled funds . Sources: Refinitiv Lipper, ESMA.



Note: Median and difference between the first and 3rd quartile of the value of cash held by EU27 corporate bond funds, in % of portfolio holdings (%). Short positions can have a negative value. Sources: Refinitiv Lipper, ESMA.



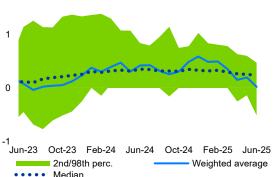
Note: Weighted average effective maturity of EU bond funds' assets, data in years. Sources: Thomson Reuters Lipper, ESMA

## Money market funds

## A.83

## **EU MMF** performance

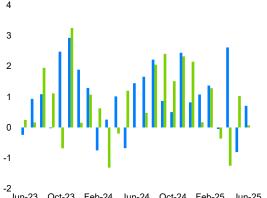
2



Note: EU27-domiciled MMFs' average yearly returns by month, assetweighted, in %. The graph shows the median and average asset-weighted returns and the difference between the returns corresponding to the 98th and the 2nd percentile (light blue corridor). Sources: Refinitiv Lipper, ESMA.

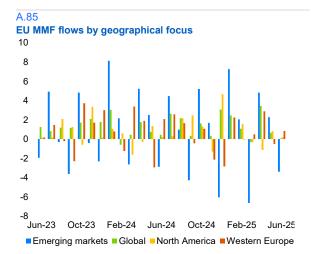
## A.84

## MMF flows by domicile

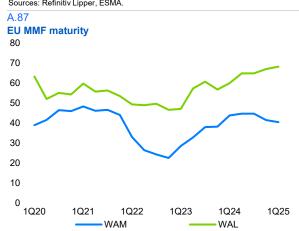


-2 Jun-23 Oct-23 Feb-24 Jun-24 Oct-24 Feb-25 Jun-25 ■EU

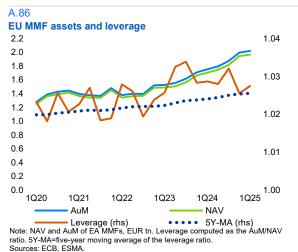
Note: Monthly net flows for MMFs by domicile, in % of NAV. Sources: Refinitiv Lipper, ESMA.



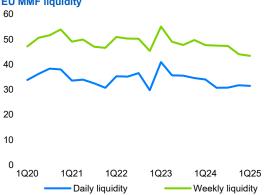
Note: EU27 MMF monthly net flows by geographical focus, in % of NAV of the geografical area. Sources: Refinitiv Lipper, ESMA.



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.



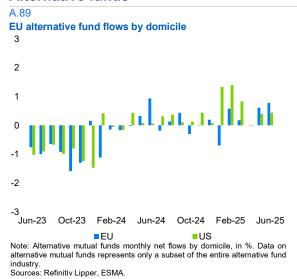
A.88
EU MMF liquidity
60

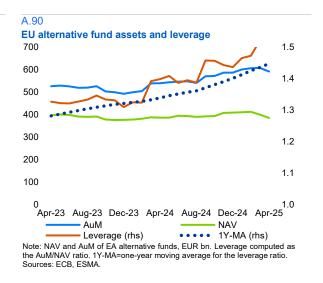


Note: Daily and weekly liquidity includes all assets maturing overnight and shares by AAA MMFs, securities issued by highly rated sovereigns with a maturity of less than one year, in % of total assets. Aggregation carried out using individual Europe-domiciled MMF data weighted by AuM.

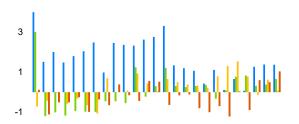
Sources: Fitch Ratings, ESMA.

## **Alternative funds**





## A.91 Alternative fund flows by geographical focus



-3 Jun-23 Oct-23 Feb-24 Jun-24 Oct-24 Feb-25 Jun-25 ■Emerging markets ■Global ■North America ■Western Europe

Note: Alternative mutual funds' monthly net flows by geographical focus, in %of NAV of the geografical area. Data on alternative mutual funds represents only a subset of the entire alternative fund industry. Sources: Refinitiv Lipper, ESMA.

## A.92 Direct and indirect EU property fund flows 10

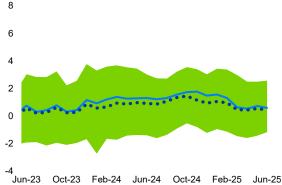


Note: Two-month cumulative flows for direct and indirect EU27-domiciled property funds. Indirect property funds invest in securities of real estate companies, inleuding Real Estate Investment Trusts (REITs), in EUR bn. Sources: Morningstar, ESMA.

## **Exchange-traded funds**

## A.93

## **EU ETF returns**

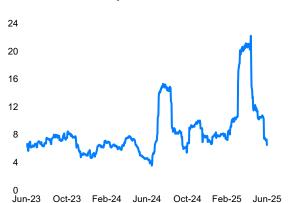


weighted, in %. The graph shows the median and average asset-weighted returns and the difference between the returns corresponding to the 98th and the 2nd percentile (light blue corridor). Sources: Refinitiv Lipper, ESMA.

## 2nd/98th perc. Weighted average • • • • • Median Note: EU27-domiciled ETFs' average yearly returns by month, asset-

## A.94

## **EU ETF returns volatility**



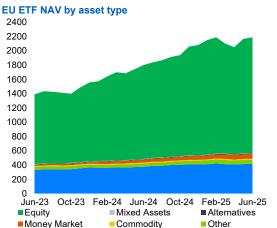
Note: Annualised 40-day historical return volatility of EU27-domiciled ETF, Sources: Refinitiv Lipper, ESMA.

A.95

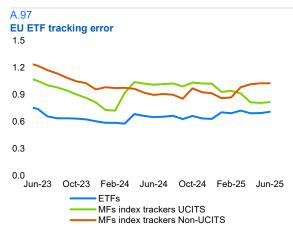
## EU ETF and NAV by domicile 5.000 14 13 4,500 12 4,000 11 10 3,500 9 3,000 8 7 2 500 6 2,000 5 1.500 4 3 1,000 2 500 1 0 Jun-23 Oct-23 Feb-24 Jun-24 Oct-24 Feb-25 Jun-25 EU US

Note: NAV, EUR tn, and number of ETFs by domicile (rhs). Sources: Refinitiv Lipper, ESMA

## A.96



Note: Monthly NAV of EU27 ETFs by asset type, EUR bn. Sources: Refinitiv Lipper, ESMA.



Note: Tracking error defined as standard deviation of fund excess returns compared to benchmark. The graph shows the tracking error for EU27 ETF and EU27 mutual funds both UCITS and non-UCITS. Yearly standard deviation reported on monthly frequency. End-of-month data. Sources: Refinitiv Lipper, ESMA.

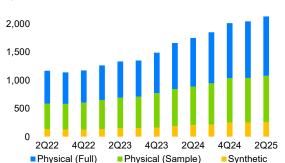
## A.99

# Assets of leveraged EU ETFs 3 2.5 2 1.5 1 0.5 0 2Q23 3Q23 4Q23 1Q24 2Q24 3Q24 4Q24 1Q25 2Q25 Leveraged (long) Leveraged (short)

Note: Total assets of leveraged ETFs by exposure type, EUR bn. Sources: Refinitiv Lipper, ESMA.

## A.101

## Assets of EU ETFs by replication method 2,500

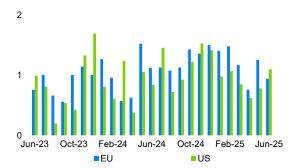


Note: Assets under management of EU-domiciled ETFs by replication method. "Physical (Full)" = fund replicates index performance by purchasing all constituent securities. "Physical (Sample)" = fund replicates index performance by purchasing only some of the consituent securities. Sources: Morningstar, ESMA

## A.98

## EU and US ETF flows by domicile

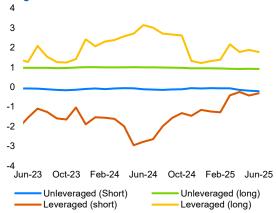
3



Note: ETF monthly net flows by domicile, in % of NAV. Sources: Refinitiv Lipper, ESMA.

## A.100

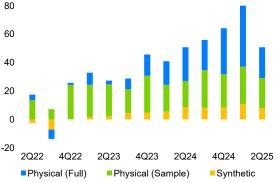
## Average beta values for EU ETFs



Note: Leverage ETFs are self-reported. The annual average monthly beta is measured as the volatility of a fund return in cimparison to its benchmakr. An unleveraged ETF will typically have a beta close to 1..0. Sources: Refinitiv Lipper, ESMA.

## A.102

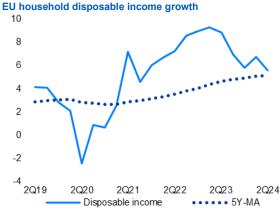
## Flows into EU ETFs by replication method



Note: Net quarterly flows of EU-domiciled ETFs by replication method. "Physical (Full)" = fund replicates index performance by purchasing all constituent securities. "Physical (Sample)" = fund replicates index performance by purchasing only some of the consitent securities. Sources: Morningstar, ESMA

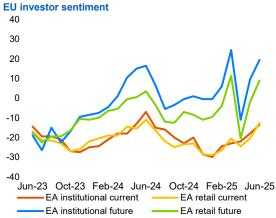
## Consumers

## Investment resources available to households



Note: Annualised growth rate of household gross disposable income adjusted for changes in pension entitlements for EU27 countries, in %. 5Y-MA=five-year moving average of the growth rate. Sources: Eurostat, ESMA.

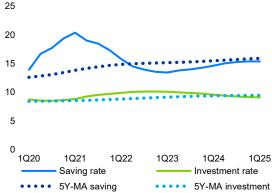
## A.105



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.

## A.104

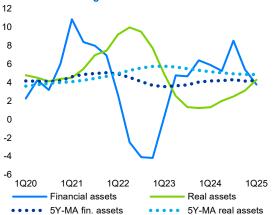
## EU household saving and investment rates



Note: EA household annual saving and investment rates, based on four-quarter cumulated transactions, in %. 5Y-MA saving-five-year moving average of the saving rate. 5Y-MA investment=five-year moving average of Sources: ECB, ESMA.

## A.106

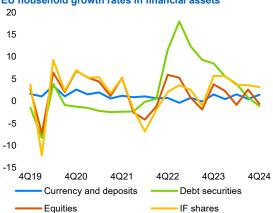
## EU household asset growth



Note: Annualised growth rate real and financial assets of EA households, in %. 5Y-MA=five-year moving average of the growth rates. Sources: ECB, ESMA

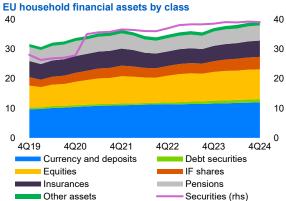
## Asset allocation by retail investors

## EU household growth rates in financial assets



Note: Quarterly asset growth rates of financial assets held by EU27 households, in %. IF shares=investment fund shares. Sources: ECB, ESMA.

## A.108



Note: Financial assets of EU27 households, EUR tn, and share of securities investments (debt securities, equities and IF shares) in total, in %. IF shares=investment fund shares. Other financial assets=Insurance technical reserves, financial derivatives, loans granted and other accounts receivable. Sources: ECB, ESMA.

# A.109 Share of securities investments in EU household assets 30 25 20 15 10 5 0 4Q19 4Q20 4Q21 4Q22 4Q23 4Q24

Note: Share of debt securities, equities and IF shares into the financial assets of EU27 households, in %. IF shares=investment fund shares. Sources: ECB, ESMA.

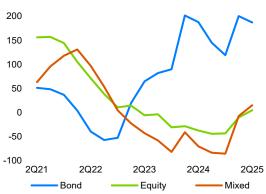
Equities

IF shares

## A.111

## UCITS net flows by asset class for retail investors 250

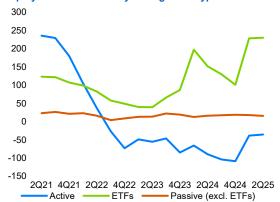
Debt securities



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

## A.113

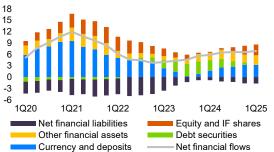
## **Equity UCITS net flows by management type**



Note: EU27 equity UCITS annual net flows from retail and institutional investors at quarterly frequency by management type, EUR bn. Sources: Refinitiv Lipper, ESMA.

## A.110

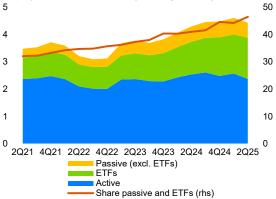
## EU household net financial asset flows



Note: Net acquisition of financial assets and net incurrence of liabilities for EA households as a share of their gross disposable income adjusted for changes in pension entitlements, based on a one-year rolling period, in %. If shares=investment fund shares. Other financial assets=Insurance technical reserves, financial derivatives, loans granted and other accounts receivable. Net financial flows=Net household lending (positive values) or borrowing (negative values) to/from sectoral financial accounts. Liabilities multiplied by 1 to present as outflows. Sources: ECB, ESMA.

## A.112

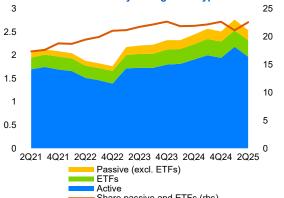
## Equity UCITS market size by management type



Note: EU27 equity UCITS market size, retail and institutional investors, by management type. All observations for which information on fund value, performance, net flows, subscription and redemptions fees are available, in EUR tn. Share of pasive and ETFs, in %. Sources: Refinitiv Lipper, ESMA.

## A.114

## Bond UCITS market size by management type



Share passive and ETFs (rhs)

Note: EU27 bond UCITS market size, retail and institutional investors, by management type. All observations for which information on fund value, performance, net flows, subscription and redemption fees are available, in EUR tn. Share of pasive an ETFs, in%.

Sources: Refinitiv Lipper, ESMA.

## A.115 Bond UCITS net flows by management type 250 200 150 100 50 0 -50 -100 -150 -200 2Q21 4Q21 2Q22 4Q22 2Q23 4Q23 2Q24 4Q24 2Q25 ETFs — -Passive (excl. ETFs)

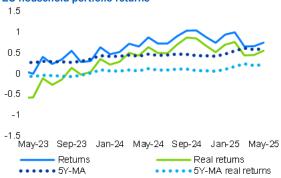
Note: EU27 bond UCITS annual net flows from retail and institutional investors at quarterly frfequency by management type, EUR bn. Sources: Refinitiv Lipper, ESMA.

## A.116 Equity active funds closet index indicator 10% 8% 6% 4% 2% 0% 3019 3020 3Q21 3Q22 3023 3Q24 AS<60% TE <4% ••••• AS<50% TE<3% • • • • • AS<50% TE <3% R2>95%

Note: Note: EU27 active equity UCITS share of potential closet index (CI) within our sample. Share of total, %. Potential CI based on three criteria: Active Share (AS) < 60% and Tracking Error (TE) < 4%; AS < 50% and TE < 3%; AS < 50% and TE < 3% and R-squared (R2) > 95%. Sources: Morningstar Direct, ESMA.

## **Costs and performance**

## 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.

## A.118

## EU fund synthetic risk and reward indicator

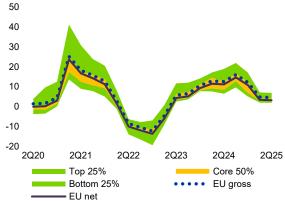


Note:The calculated Synthetic Risk and Reward Indicator is based on ESMA SRRI guidelines. It is computed via a simple 5 year annualised volatility measure which is then translated into categories 1-7 (with 7 representing higher levels of

Sources: Refinitiv Lipper, ESMA.

## A.119

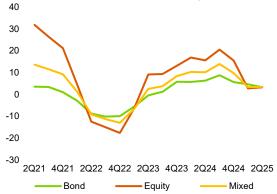
## **UCITS** retail investor dispersion of net performance



Note: Dispersion of EU27 UCITS net performances, retail investors only, adjusted for total expense ratio and load fees, in %. Distribution represents selected EU27 markets. Sources: Refinitiv Lipper, ESMA.

## A.120

## UCITS retail investors net performance by asset class

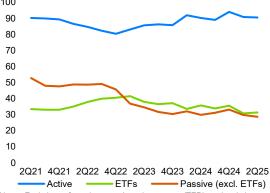


Note: Evolution of net annual performance (net of ongoing costs (TER), subscription and redemptions fees) of EU27 UCITS, retail investors only, by Sources: Refinitiv Lipper, ESMA.

## A.121 Equity UCITS total costs by management type 160 140 120 100 80 60 40 20 2Q21 4Q21 2Q22 4Q22 2Q23 4Q23 2Q24 4Q24 2Q25 ETFs Passive (excl. ETFs)

Note: Evolution of total costs (ongoing costs (TER), subscription and redemtpions fees) of EU27 of equity UCITS, retail and institutional invetsors, by management type, in bps. Sources: Refinitiv Lipper, ESMA.

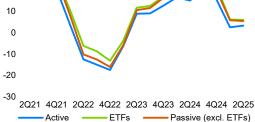
## A.123 Bond UCITS total costs by management type 100



Note: Evolution of total costs (ongoing costs (TER), subscription and redemption fees) of EU27 bond UCITS, retail and institutional investors, by

management type, in bps. Sources: Refinitiv Lipper, ESMA

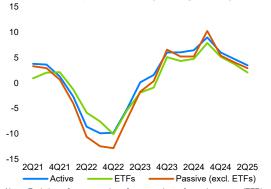
## A.122 Equity UCITS net performance by management type 30 20



Note: Evolution of net annual performance (net on ongoing costs (TÉR), subscription and redemption fees) of EU27, equity UCITS, retail and institutional investors, by management type, in %. Sources: Refinitiv Lipper, ESMA.

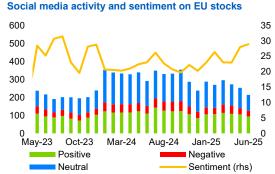
## A.124 Bond UCITS net performance by management type

Active -



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

## Social media activity

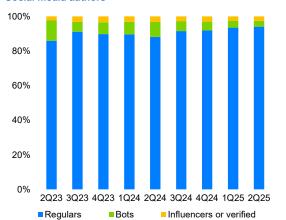


Note: Social media messages mentioning constituents of the Stoxx 600 Index, classified by sentiment type. 'Neutral' messages are defined as the number of 'Total' messages minus 'Positive' and 'Negative', thousands. Sentiment is defined as the prevalence of positive versus negative messages as a ratio of total daily messages on the constituents of STOXX 600, %, right hand side axis (rhs).

Sources: Stockpulse, ESMA

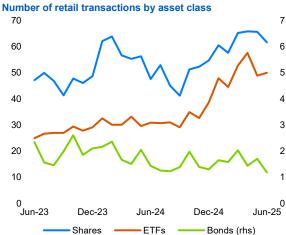
## Social media authors

A.126



Note: Share of authors of social media messages linked to the consitituents of the EuroSTOXX600 by type, %. Sources: Stockpulse, ESMA.

## **Retail transactions**

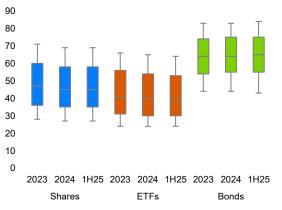


Note: Monthly gross number of transaction for EU retail investors by selected

Sources: MiFIR transaction reporting, ESMA.

## A 129

## Age distribution of retail investors by asset class

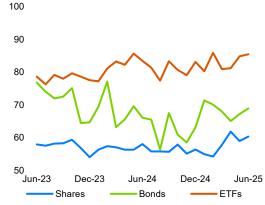


Note: Age distribution of unique retail investors making at least one transaction in a given asset class in 2023, in 2024 and in 1H25 respectively. Boxes show 25th, 50th and 75th percentiles; whiskers show 10th and 90th

percentiles.
Source: MiFIR transaction reporting, ESMA.

## A.128

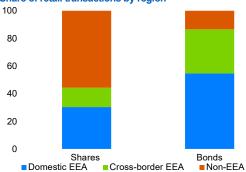
## Share of 'buy' transactions by asset class



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.

## A.130

## Share of retail transactions by region



Note: Share of number of retail transactions by region and asset class, %. Period: January 2025 to June 2025. "Domestic EEA" = Retail investor is resident in the same EEA country as the issuer. "Cross-border EEA" = Retail investor is resident in a different EEA country to the issuer. "Non-EEA" = Retail investor is resident in EEA but issuer is outside EEA. Sources: MiFIR transaction reporting, ESMA.

## **Complaints**

## A.131 **EU** complaints 6,000 4,000 2.000 0

Note: Number of complaints recorded by quarterly-reporting NCAs (n=13) via given reporting channels. "NCA"=Reports lodged directly by consumers with NCAs. (I=13) via given reporting channels. "NCA"=Reports lodged directly by consumers with NCAs. "Firms"=Complaints recorded by NCAs via firms. "Average total"=average total number from 4Q22 to 4Q24.

Sources: ESMA complaints database.

Firms

1Q24

3Q24

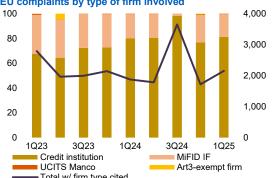
Average total (rhs)

3Q23

1Q23

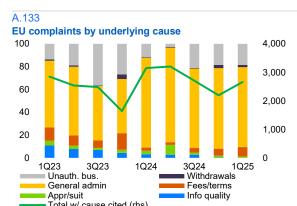
NCA

## A.132 EU complaints by type of firm involved



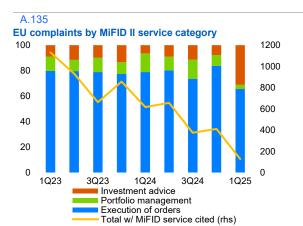
UCITS Manco — Total w/ firm type cited

Note: Share of complaints for quarterly-reporting NCAs (n=13) received direct from consumers and via firms by type of firm involved, excluding complaints without firm type recorded, %. Total with firm type reported "Number of complaints via these reporting channels excluding those with no firm type recorded, rhs. 'MiFID IF'=MiFID investment firm. 'UCITS Manco'=UCITS management company. 'Art3-exempt firm'=Firm exempt under MiFID Article 3. Surges: SSMA complaints database. Sources: ESMA complaints database

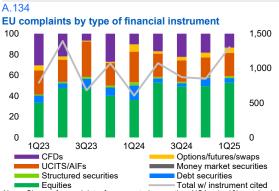


General admin Fees/terms
Appr/suit Info quality
Total W/ cause cited (rhs)
Note: Share of complaints for quarterly-reporting NCAs (n=13) received direct from consumers and via firms by underlying cause, excluding complaints with no cause recorded, %. 'Unauth. bus.'=Unauthorised business. 'Appr/suit'=Appropriateness or suitability assessment. 'Info quality'=Quality or lack of information. 'Total with cause reported'=Number of complaints via these reporting channels categorised by one of the listed causes.

Sources: ESMA complaints database.



Note: Share of complaints for quarterly-reporting NCAs (n=13) received direct from consumers and via firms recorded as associated with a given MiFID service, excluding complaints with no such category recorded, all reporting channels, %. Total with MiFID service reported = Total complaints received via these reporting channels recorded as associated with a MiFID service. Sources: ESMA complaints database.

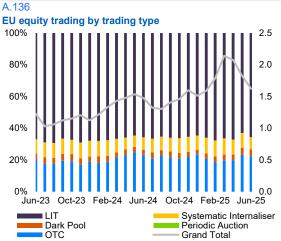


Equities Total w/ instrument cited Note: Share of complaints from quarterly-reporting NCAs (n=13) received direct from consumers and via firms by type of financial instrument, where one of the instruments listed was reported. Total with instrument cited\*=number of complaints via these reporting channels excluding those with instrument type not reported or reported as 'other' or 'N/A', rhs. Total complaints\*=number of complaints via these reporting channel whether or not further categorisation possible. 'CFDs\*=Contracts for Differences.

Sources: ESMA complaints database.

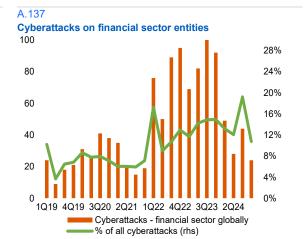
## Infrastructures and services

## **Trading venues and MiFID entities**



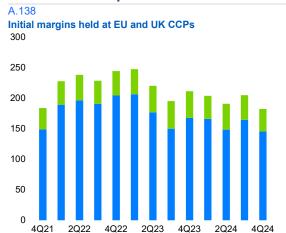
Note: Type of equity trading in the EEA as a percentage of total equity turnover. Total equity trading turnover in EUR trillion (rhs). Last available data point is June 2025.

Sources: FIRDS, FITRS, ESMA



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

## **Central counterparties**



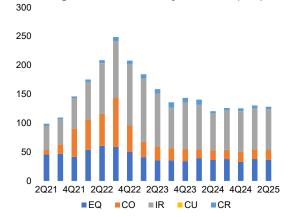
Note: Initial margin required as well as additional margin posted by EU CCPs,

ExcessMargin

Sources: Clarus Financial Technology, CPMI-IOSCO PQD, ESMA

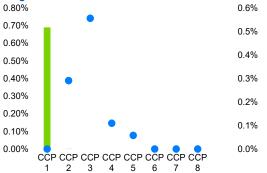
## Initial margins held at EU CCPs by asset class (TBU)

TotalInitialMarginRequired



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

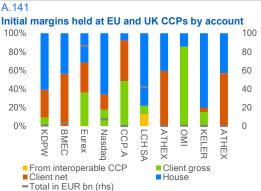
Margin breaches at selected EU CCPs 0.80%



■ Breaches of initial margin -average uncovered exposure Breaches of initial margin -peak uncovered exposure (rhs)

Note: Average and maximum margin breach size over the past 12 month at selected EU CCPs, as a percentage of the total margin held, as of 30 September 2024. (Data for Athex Clearing, BME Clearing, CC&G and Euro

CCP not reported)
Sources: Clarus Financial Technology, PQD, ESMA.



Note: Total initial margin required, split by house accounts (participants positions on their own account), client gross (when initial margin for the positions of indirect participants must be provided for each indirect participant's own position) and client net (when positions are netted within a group of clients). As of 30th September 2024 (data for Athex Clearing as of 28 June 2024)

Sources: Clarus Financial Technology, CPMI-IOSCO PQD, ESMA

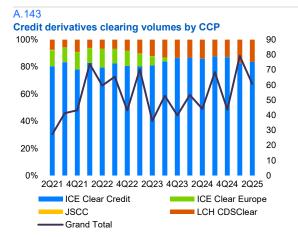


Note: Quarterly notional volumes cleared for OTC and ETD IRDs in EUR, USD, JPY or GBP. Market shares by CCP in % of total quarterly volumes cleared for these products. Total volumes in EUR tn. Sources: Clarus Financial Technology, ESMA.

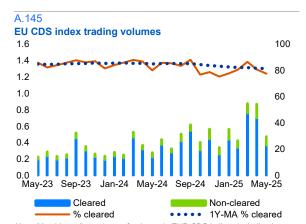
## A.144 **EU IRD trading volumes** 18 100 16 80 14 12 60 10 8 6 4 20 2 May-23 Sep-23 Cleared Non-cleared % cleared • • • • • 1Y-MA % cleared

Note: Monthly trading volumes for EU27-currency-denominated IRD products. Products include IRS, basis swaps, FRA, inflation swaps, OIS. 40-day moving average notional, USD tn. ISDA SwapsInfo data are based on publicly available data from DTCC Trade Repository LLC and Bloomberg Swap Data Repository.

Sources: ISDA SwapsInfo, ESMA.

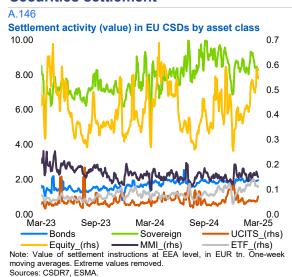


Note: Quarterly notional volumes cleared for CDS, CDX and CDX futures & swaptions in EUR, USD, JPY or GBP. Market shares by CCP in % of total quarterly volumes cleared for these products. Total volumes in EUR tn. Sources: Clarus Financial Technology, ESMA.



Note: Monthly trading volumes for the main EUR CDS indices including Itraxx Europe, Itraxx Europe Crossover, Itraxx Europe Senior Financials. 40-day moving average notional, USD tn. ISDA SwapsInfo data are based on publicly available data from DTCC Trade Repository LLC and Bloomberg Swap Data Repository. Sources: ISDA SwapsInfo, ESMA

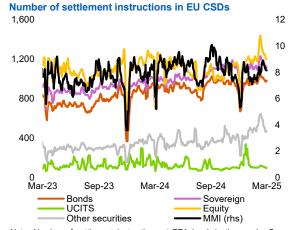
## **Securities settlement**



## Settlement fails (value) in EU CSDs by asset class 60 50 40 30 20 10 0 Mar-23 Sep-23 Mar-24 Sep-24 Mar-25 UCITS Bonds Sovereign Equity MMI ETF Note: Settlement fails as a % of total value of settlement instructions at EEA

level. One-week moving averages. Extreme values removed Sources: CSDR7, ESMA

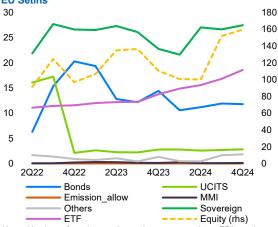
## A.148



Note: Number of settlement instructions at EEA level, in thousands. One-week moving averages. Extreme values removed. Sources: CSDR7, ESMA.

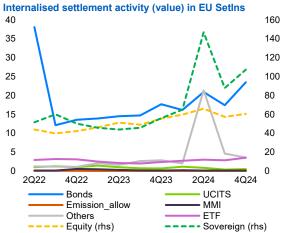
## A.150

## Internalised settlement activity (number of instructions) in EU SetIns



Note: Number of settlement instructions processed at EEA settlement internalisers (SetIns), in mn.
Sources: CSDR9, ESMA

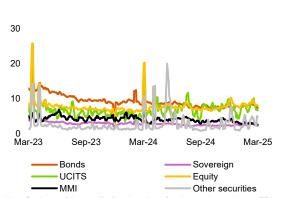
## A.152



Note: Value of settlement instructions processed at EEA settlement internalisers (SetIns), in EUR tn.
Sources: CSDR9, ESMA

## A.149

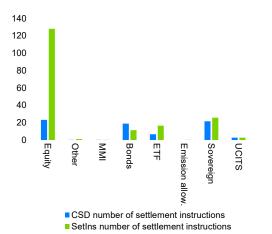
## Rate of failed settlement instructions in EU CSDs 40



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

## A.151

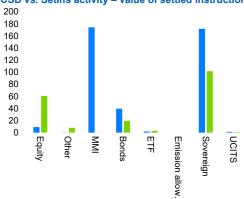
## CSD vs. SetIns activity - number of instructions



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

## A.153

## CSD vs. SetIns activity - value of settled instructions



- ■CSD value of settlement instructions
- SetIns value of settlement instructions

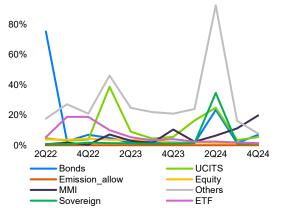
Note: 2024 Average value of settled instructions at EU CSDs and settlement internalisers (SetIns) each quarter, in EUR tn. Sources: CSDR9, ESMA.

## A.154 Faile rates in EU SetIns - number of instructions 40% 35% 30% 25% 20% 15% 10% 5% 0% 2Q22 4Q22 4Q23 2Q24 4Q24 Bonds **UCITS** Emission\_allow Equity MMI Others ETF Sovereign

Note: Settlement fails as a % of total number of settlement instructions at EEA settlement internalisers (SetIns), in %. Sources: CSDR9, ESMA

## A.156

## Fail rates in EU SetIns – value of instructions 100%



Note: Settlement fails as a % of total value of settlement instructions at EEA settlement internalisers (SetIns), in %.

Sources: CSDR9, ESMA

## A.155 CSD vs. SetIns fail rates – number of instructions 30% 25% 20% 15% 10% 5%

≦

CSD fail rates in number of instructionsSetIns fail rates in number of instructions

**Emission allow** 

Sovereign

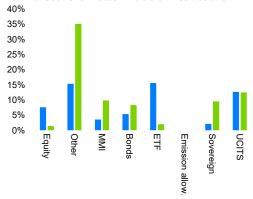
UCITS

Note: 2024 average settlement fail rates in number of instructions at EU CSDs and settlement internalisers (SetIns) each quarter, in %. Sources: CSDR9, ESMA.

## A.157

0%

## CSD vs. SetIns fail rates - value of instructions



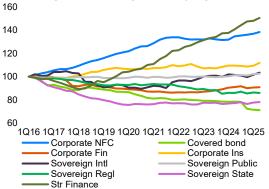
CSD fail rates in value of settlement instructionsSetIns fail ratesin value of settlement instructions

Note: 2024 average settlement fail rates in value at EU CSDs and settlement internalisers (SetIns) each quarter, in %. Sources: CSDR9, ESMA.

## **Credit rating agencies**

## A.158

## Outstanding EU credit ratings issued by Big 3 CRAs

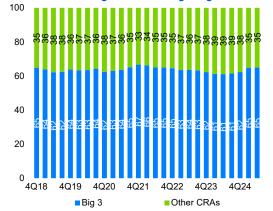


Note: Evolution of the number of outstanding EEA issuer and instrument ratings by debt category on last day of quarter, indexed at 31 March 2016=100. S&P, Moody's and Fitch. NFC - non financial, Fin - financial, Ins - insurance, Intl - international, Reg - regional. Supranational sovereigns omitted due to very small population.

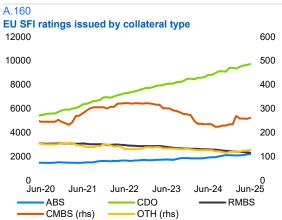
Sources: RADAR, ESMA.

## A.159

## Share of outstanding EU credit ratings: Big 3 CRAs vs. rest



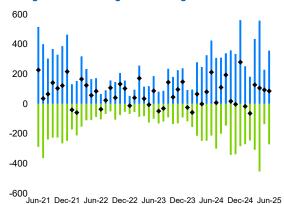
Note: Share of outstanding long-term ratings of EEA issuers and instruments from Big 3 CRAs (S&P, Moody's and Fitch) and from all other CRAs in %. Sources: RADAR, ESMA.



Note: Number of rated EEA structured finance instruments by asset class. ABS=Asset-backed securities (r.h.axis); CDO=Collateralised debt obligations; CMBS=Commercial mortgage-backed securities; OTH=Other; RMBS=Residential mortgage-backed securities. Asset backed commercial paper omitted due to very small sample size. Sources: RADAR, ESMA.

## A.162

## Changes in outstanding EU SFI ratings

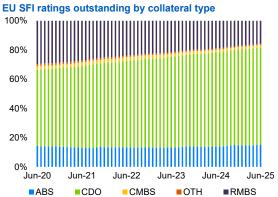


Note: Number of withdrawn and new ratings for structured finance instruments, EEA ratings.
Sources: RADAR, ESMA.

♦ Net change

■Withdrawn

## A.161 EU SFI ratings outstanding

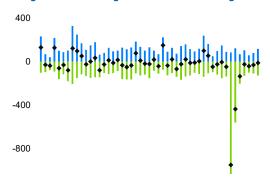


Note: Outstanding ratings of EEA structured finance instruments by asset class, in % of total. ABS=Asset-backed securities; CDO=Collateralised debt obligations; CMBS=Commercial mortgage-backed securities; OTH=other; RMBS=Residential mortgage-backed securities. Asset backed commercial paper omitted due to very small sample size.

Sources: RADAR, ESMA.

## A.163

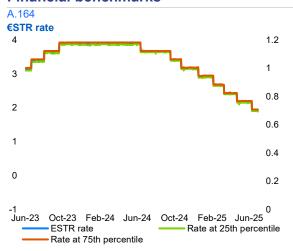
## Changes in outstanding EU covered bond ratings



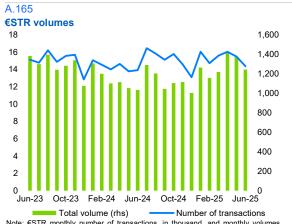
-1200
Jun-21 Dec-21 Jun-22 Dec-22 Jun-23 Dec-23 Jun-24 Dec-24 Jun-25
■ New
■ Withdrawn
◆ Net change
Note: Number of withdrawn and new ratings for covered bond ratings, EEA ratings.
Sources: RADAR, ESMA.

## **Financial benchmarks**

New



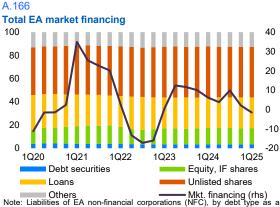
Note: €STR rates at 25th, 50th and 75th percentile of volume, in %. Sources: ECB, ESMA.



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

## Market based finance

## **Capital markets financing**

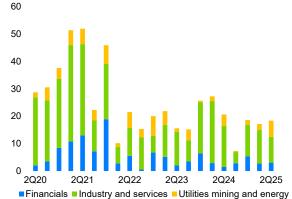


Note: Liabilities of EA non-financial corporations (NFC), by debt type as a share of total liabilities. Others include: financial derivatives and employee stock options; insurance, pensions and standardised guarantee schemes; trade credits and advances of NFC; other accounts receivable/payable. Mkt.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

Sources: ECB, ESMA.

## A.168

## EEA equity issuance by sector



Note: Equity gross issuance in the EEA30 by sector, EUR bn. Financials includes banking & investment services, insurance, investment trusts and real estate.

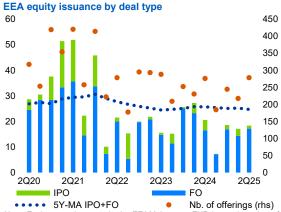
Sources: Refinitiv EIKON, ESMA.

## Δ 170

# 75 100 12.0 10.0 8.0 6.0 4.0 25 1y–5y >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.

## A.167

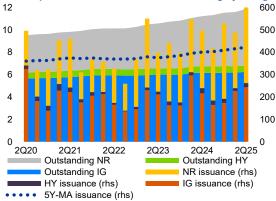


Note: Equity gross issuance in the EEA30 by type, EUR bn, and number of equity offerings. 5Y-MA=five-year moving average of the total value of equity offerings.

Sources: Refinitiv EIKON, ESMA.

## A.169

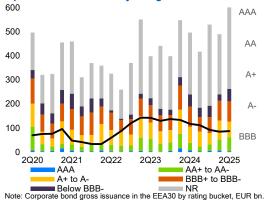
## EEA corporate bond issuance and outstanding by rating



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.

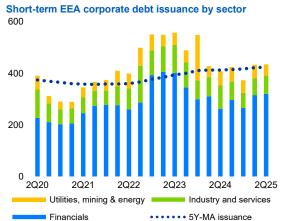
## A.17

## Corporate bond issuance by rating class

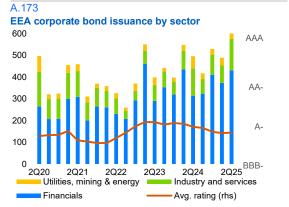


Note: Corporate bond gross issuance in the EEA30 by rating bucket, EUR bn. Avg. rating-weighted average rating computed as a one-year moving average of ratings converted to a numerical scale (AAA=1, AA+=2, etc.) excluding non-rated bonds. Maturities < 12 months are excluded. Sources: Refinitiv EIKON,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

## A.172



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



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

Sources: Refinitiv EIKON, ESMA

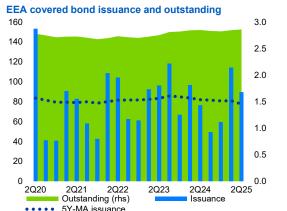
## A.174

Financials

## EU securitised products issuance and outstanding 120 1.4 1.2 100 1.0 80 8.0 60 0.6 40 0.4 20 0.2 0 0.0 1Q20 1Q21 1Q22 1Q23 1Q24 1Q25 Outstanding (rhs) Retained issuance

Placed issuance • • • • • 5Y-MA issuance Note: Retained and placed securitised products gross issuance in Europe, EUR bn, and outstanding amounts (rhs), EUR tn. Data includes ABS, CDO, MBS, SME, WBS. Sources: AFME, ESMA

## A.175



•••• 5Y-MA issuance Note: Covered bond gross issuance in the EEA30, EUR bn, and outstanding amounts (rhs), EUR tn. Maturities < 12 months are excluded. Sources: Refinitiv EIKON, ESMA.

## A.176

## EA non-bank wholesale funding 3.5 12 3.0 10 2.5 8 6 20 1.5 4 2 1.0 0 0.5 0.0 -2 4Q19 4Q21 4Q22 4Q24 4Q20 4Q23 Resident OFI debt sec. IF debt securities Securitised assets MMF debt securities IF deposits MMF deposits

Note: Amount of wholesale funding provided by EA non-banks, EUR tn, and growth rate (rhs), in %. Securitised assets are net of retained securitisations. Resident OFI reflects the difference between the total financial sector and the known sub-sectors within the statistical financial accounts (i.e. assets from banking sector, insurances, pension funds, financial vehicle corporations, investment funds and money market funds).

Sources: ECB, ESMA.

## **Market-based credit intermediation**

## EU sovereign repo market specialness 35 30 25 20 15 10 5 Jun-23 Oct-23 Feb-24 Jun-24 Oct-24 Feb-25 Jun-25 -75th perc 90th perc Median

Note: Median, 75th and 90th percentile of weekly specialness, measured as the difference between general collateral and special collateral repo rates on government bonds in nine EUR repo markets (AT, BE, DE, ES, FI, FR, IT, NL and PT).

Sources: CME Group Benchmark Administration Limited, ESMA

## A.178 EU sovereign repo market turnover 400 350 300 250 200 150 100 50 0 Jun-23 Oct-23 Feb-24 Jun-24 Oct-24 Feb-25 Jun-25 •••• 1Y-MA

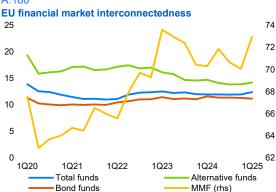
Note: Repo transaction volumes executed through CCPs in nine sovereign EUR repo markets (AT, BE, DE, ES, FI, FR, IT, NL and PT), EUR bn. Sources: CME Group Benchmark Administration Limited, ESMA

Volume

## Total assets of EU MMFs and other financial institutions 140 45 120 40 100 35 30 80 25 60 20 15 40 10 20 5 0 0 1Q20 1Q21 1Q22 1Q23 1Q24 1Q25 FVC IF MMF Other OFI OFI + MMF (rhs) FIF + MMF (rhs)

Note: Total assets for EA MMFs and other financial institutions (OFI): investment funds (IF), financial vehicle corporations (FVC), Other OFI estimated with ECB Quarterly Sector Accounts, in EUR tn. Expressed in % of bank assets on rhs Sources: ECB, ESMA.

## A.180



Note: EA loan and debt securities vis-à-vis MFI counterparts, as a share of total assets, investment funds and MMFs, in %. Total funds includes: bond funds, equity funds, mixed funds, real estate funds, hedge funds, MMFs and other non-MMF investment funds. Sources: ECB, ESMA.

## Credit terms in EU SFT and OTC derivatives 3.75 3.50 3.25 3.00 2.75 2.50 2.25 3Q19 3Q20 3Q21 3Q22 3Q23 3Q24 Price terms Non-price terms

Note: Weighted average of responses to the question: "Over the past three months, how have terms offered as reflected across the entire spectrum of EUR-denominated instruments in securities financing and OTC derivatives transaction types changed?" 1=tightened considerably, 2=tightened somewhat, 3=remained basically unchanged, 4=eased somewhat, and 5=eased considerably Sources: ECB, ESMA.

## A.182

## EU securities financing conditions 34 3.3 3 2 3 1 3.0 29 2.8 27 2.6 2Q19 2Q20 2Q21 2Q22 2Q23 2024

Demand for funding
Note: Weighted average of responses to the questions "Over the past three months, how has demand for funding/how have liquidity and functioning for all EUR-denominated collateral types changed?" 1=decreased/deteriorated considerably, 2=decreased/deteriorated somewhat, 3=remained basically considerably, 2=decreased/deteriorated somewhat, 3=remained basically unchanged, 4=increased/improved somewhat, and 5=increased/improved

Sources: ECB, ESMA

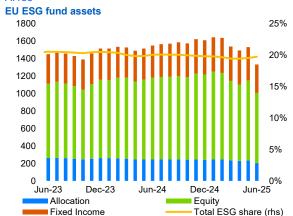
## Sustainable finance

## **ESG** investing

## A.183 Global ESG leaders index performance 160 140 100 80 , Jun-23 Oct-23 Oct-24 Feb-24 Jun-24 Feb-25 Jun-25 Note: MSCI ESG leaders total return indices, denominated in USD, indexed with 01/04/2023=100.

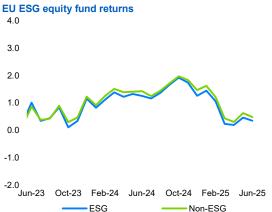
## A.185

Sources: Refinitiv Datastream, ESMA



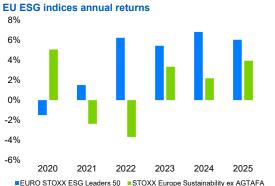
Note: AuM of EU-domiciled ESG funds by fund type, EUR billion, and share of ESG funds in total EU fund assets (right axis), in %. Sources: Morningstar, ESMA.

## A.187



Note: ESG and non-ESG equity funds' annual average monthly returns, asset weighted, in %. Sources: Morningstar, Refinitiv Lipper, ESMA.

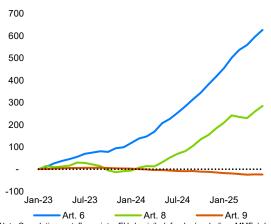
## A.184



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.

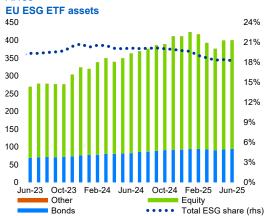
## A.186

## EU fund flows by SFDR fund type

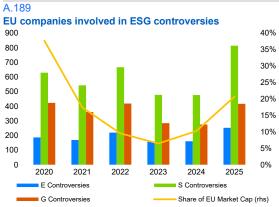


Note:Cumulative net flows into EU-domiciled funds (excluding MMFs) by SFDR fund type since December 2022, EUR bn. Sources: Morningstar, ESMA.

## A.188



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



Note: Number of EU companies involved in high-impact environmental, social or governance controversies, and share of EU market capitalisation (right axis), in % of total market cap of EU-27 companies.

Sources: Refinitiv Datastream, Sustainalytics, ESMA.

## A.190 Environmental controversy scores of EU companies 1.2 1.0 0.8 0.6 0.4 0.2 1.0 Jun-22 Dec-22 Jun-23 Dec-23 Jun-24 Dec-24 Jun-25 Materials Financials Energy Industrials

Note: Monthly average highest environmental controversy score of EU-27 companies within selected sectors, on a scale ranging from 0 to 5. Sources: Sustainalytics, ESMA.

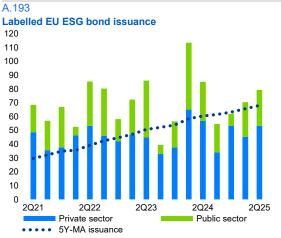
## Sustainable debt

## **EU ESG** bonds outstanding 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

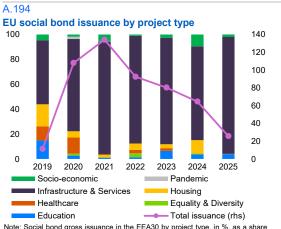
Note: Total amount of ESG bonds outstanding issued by EEA30-domiciled issuers, EUR bn.
Sources: Refinitiv EIKON, ESMA.

## A.192 EU green bonds outstanding 1,800 70 1,600 1.400 65 1,200 1,000 60 800 600 55 400 200 50 2Q21 2Q22 2Q23 2Q24 2Q25 Private sector % private sector (rhs)

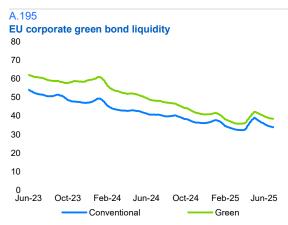
Note: Outstanding amount of green bonds in the EEA30 by sector, EUR bn, and share of private sector (rhs), in %. Sources: Refinitiv EIKON, ESMA.



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



Note: Social bond gross issuance in the EEA30 by project type, in %, as a share of total social bond gross issuance (rhs), in EUR bn. Sources: Refinitiv EIKON, ESMA.



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.



Note: Bid-ask spread of green and conventional bonds from government, supranational and agency green bond issuers, as a monthly average of bid-ask spreads weighted by trading volumes across 12 EU27 domestic markets (AT, BE, DE, ES, FI, FR, GR, IE, IT, NL, PT and SI) and Euro MTS, in EUR.

Sources: MTS, ESMA.

## **Carbon markets**

## A.197

## EU emission allowance prices



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

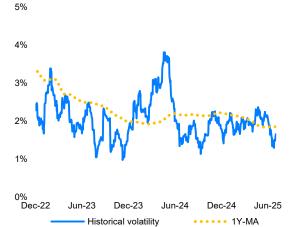
## A.199



Note: Share of hedging and non-hedging positions of compliance entities and other commercial undertakings in EU emission allowance derivatives, in %. Sources: ESMA

## A.198

## EU emission allowance returns volatility



Note: Rolling 20-day standard deviation of daily changes in EU emission allowance spot prices, in %. 1Y-MA = one-year moving average Sources: Refinitiv Datastream, ESMA.

## A.200

## Number of positions in EUA derivatives held by funds



Note: Weekly number of long and short positions in EU emission allowance derivatives held by investment funds, four-week moving averages. Sources: ESMA.

