No. 2, 2022

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European Securities and Markets Authority (ESMA)
Risk Analysis and Economics Department
201-203 rue de Bercy
75012 Paris, FRANCE
risk.analysis@esma.europa.eu
## Contents

### Market environment

### Securities markets
- Equity markets 5
- Sovereign-bond markets 6
- Corporate-bond markets 9
- Credit quality 10
- Securities lending 12
- Short selling 12
- Money markets 13
- Commodities 14

### Asset management
- Fund industry 15
- Money market funds 17
- Alternative funds 18
- Exchange-traded funds 19

### Consumers
- Investment resources available to households 22
- Asset allocation by retail investors 22
- Costs and performance 24
- Consumer complaints 25

### Infrastructures and services
- Trading venues and MiFID entities 27
- Central counterparties 28
- Central securities depositories 29
- Credit rating agencies 30
- Financial benchmarks 30

### Market based finance
- Capital markets financing 32
- Small and medium-sized enterprises (SNEs) 34
- Market-based credit intermediation 34

### Sustainable finance
- Environmental, social, and governance (ESG) investing 36
- Sustainable debt 37
- Carbon markets 38

### Financial innovation
- Crypto assets 40
### Market environment

#### A.1 EU market price performance

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Note: Return indices on EA equities (Datastream regional index), global commodities (S&P GSCI) converted to EUR, EA corporate and sovereign bonds (iBoxx EUR, all maturities). 01/04/2020=100. Sources: Refinitiv Datastream, ESMA.

#### A.2 EU market volatilities

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Note: Annualised 46D 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.

#### A.3 Economic policy uncertainty

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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.

#### A.4 EU market confidence

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Note: European Commission survey of EU27 financial services sector and subsectors (NACE Rev 2 64, 85, 96). Confidence indicators are averages of the net balance of responses to questions on development of the business situation over the past three months, evolution of demand over the past three months and expectation of demand over the next three months, in % of answers received. Fin.=financial. Ins.=insurance. Sources: European Commission, ESMA.

#### A.5 EUR exchange rates

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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. 01/04/2022=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.6 ESMA composite indicator of systemic stress

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

**Equity markets**

A.7 Global equity price performance by region

A.8 EU equity price performance of national indices

A.9 EU equity price performance by sector

A.10 US and EU equity price-earnings ratios

A.11 EU implied equity volatility

A.12 EU implied equity volatility by option maturity

Note: Regional equity return indices. 01/04/2020=100.
Sources: Refinitiv Datastream, ESMA.

Note: European equity return indices. 01/04/2020=100.
Sources: Refinitiv Datastream, ESMA.

Note: STOXX Europe 600 sectoral return indices. 01/04/2020=100.
Sources: Refinitiv Datastream, ESMA.

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.

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

Note: EURO STOXX 50 implied volatilities, measured as price indices, in %.
Sources: Refinitiv Datastream, ESMA.
Sovereign-bond markets

**A.13 EU equity bid-ask spread**

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

**A.14 ESMA composite equity illiquidity index**

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.

**A.15 EU sovereign bond issuance and outstanding**

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

**A.16 EU sovereign bond issuance by credit rating**

Note: Sovereign bond gross issuance in the EEA 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.17 EU sovereign bond rating distribution**

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

**A.18 Net EU sovereign bond issuance by country**

Note: Quarterly net issuance of EEA 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.
A.19 EU and US 10Y sovereign yields

A.20 EU 10Y sovereign spreads

A.21 EU sovereign yield correlation dispersion

A.22 EU equity-sovereign bond returns correlation dispersion

A.23 EU 10Y sovereign bond volatility

A.24 Global sovereign CDS spreads

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.25
EU sovereign bid-ask spread

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.26
ESMA composite sovereign bond liquidity index

Note: Composite indicator of market liquidity in the sovereign bond market for the domestic and Euro MTS platforms, computed by applying the principal component methodology to four input liquidity measures (Amihud illiquidity coefficient, Bid-ask spread, Roll Liquidity measure and Turnover). The indicator range is between 0 (higher liquidity) and 1 (lower liquidity).
Sources: MTS, ESMA.

A.27
EU sovereign bond liquidity

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

A.28
EU sovereign bond liquidity dispersion

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

A.29
EU sovereign bond futures liquidity

Note: One-month moving averages of the Hui-Heubel liquidity indicator for selected 10Y sovereign bond futures, in basis points. Lower figures mean more liquidity and vice-versa.
Sources: Refinitiv Datastream, ESMA.

A.30
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 basis points.
Sources: Refinitiv Datastream, ESMA.
Corporate-bond markets

A.31 EU corporate yields by credit rating

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

A.32 EU corporate spreads by credit rating

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

A.33 EU corporate rating distribution

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.34 EU corporate bid-ask spread and Amihud indicator

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

A.35 EU corporate debt redemption profile by sector

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.
Sources: Refinitiv EIKON, ESMA.

A.36 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.
Sources: Refinitiv Datastream, ESMA.
A.37
EU covered bond spreads

![EU covered bond spreads](chart1)

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.

A.38
EU hybrid capital instruments issuance

![EU hybrid capital instruments issuance](chart2)

Note: Hybrid capital instruments gross issuance in the EEA30, EUR bn, and outstanding amounts (rhs), EUR bn. 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.39
EU SFI ratings issued by collateral type

![EU SFI ratings issued by collateral type](chart3)

Note: Number of rated EEA30 structured finance instruments by asset class. ABS=Asset-backed securities (rhs); CMBS=Commercial mortgage-backed securities; CDO=Collateralised debt obligations; RMBS=Residential mortgage-backed securities. Asset backed commercial paper omitted due to very small sample size.
Sources: RADAR, ESMA.

A.40
EU SFI ratings outstanding by collateral type

![EU SFI ratings outstanding by collateral type](chart4)

Note: Outstanding ratings of EEA30 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.41
Credit rating distribution of EU covered bonds

![Credit rating distribution of EU covered bonds](chart5)

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.42
EU SFI rating changes

![EU SFI rating changes](chart6)

Note: Aggregate number of notch changes on securitised assets issued in the EEA30 with long-term ratings, for upgrades and downgrades.
Sources: RADAR, ESMA.
A.43 EU non-financial corporate rating changes

Note: Number of upgrades minus downgrades 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’s.
Sources: RADAR, ESMA.

A.44 Size of EU credit rating changes

Note: Average change in notches for long-term EEA30 ratings for issuers and instruments (excl. ICAP and CERVED). 2022 is year to date.
Sources: RADAR, ESMA

A.45 EU credit ratings drift by sector

Note: 3-month moving average of net rating changes in EEA30 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. EEA30 ratings. Fin - Financials, Ins - Insurance, NFC - non-financials.
Sources: RADAR, ESMA.

A.46 EU credit ratings volatility by sector

Note: 3-month moving average of net rating changes in EEA30 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. EEA30 ratings. Fin - Financials, Ins - Insurance, NFC - non-financials.
Sources: RADAR, ESMA.

A.47 EU corporate issuer downgrades

Note: Number of EEA30 corporate issuers with at least one bond downgraded, and ratio of downgraded corporate issuers over upgrades and downgrades (3 week moving average). Issuers with same reported parent treated as one issuer.
Sources: RADAR, ESMA.

A.48 EU credit rating outlook by rating category

Note: Distribution of outlooks for EEA30 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. Cutoff date 30/06/2022.
Sources: RADAR, ESMA.
### Securities lending

**EU securities lending market value by asset type**

Note: value on loan of securities issued in the EEA by asset class, in EUR bn.
Sources: FIS Astec, Quandl, ESMA.

**EU securities utilisation rate**

Note: Utilisation rate of securities issued in the EEA, by asset class.
Utilisation rate in percent: the ratio of the market value of securities lent over the market value of securities available for lending.
Sources: FIS Astec, Quandl, ESMA.

### Short selling

**Dispersion of net short positions in EU shares**

Note: Dispersion of net short positions by country in the EEA30 as percentage of market value of those positions relative to each country’s blue-chip index market value. The 0.1% threshold entered into force on 31 January 2022 for all EU countries. NO, IS and LI continue to use the 0.2% threshold until the CDR 2022/27 is incorporated in their national legislation. Partially or fully missing data for the following countries: DK, GR, NL, PL and RO.
Sources: NCAs, Refinitiv Datastream, ESMA.

**Value of net short positions in EU shares by sector**

Note: Market value of net short selling positions in EU shares as percentage of market value of selected EA sectoral indices. The 0.1% threshold entered into force on 31 January 2022 for all EU countries. NO, IS and LI continue to use the 0.2% threshold until the CDR 2022/27 is incorporated in their national legislation. Partially or fully missing data for the following countries: DK, GR, NL, PL and RO.
Sources: NCAs, Refinitiv Datastream, ESMA.
Money markets

**A.55 Net short positions in industrial shares and equity prices**

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Note: Market value of net short selling positions in EA industrial shares as percentage of market value of EA industrial sectoral index. 01/03/2020=100. The 0.1% threshold entered into force on 31 January 2022 for all EU countries. NO, IS and LI continue to use the 0.2% threshold until the CDR 2022/27 is incorporated in their national legislation. Partially or fully missing data for the following countries: DK, GR, NL, PL and RO.
Sources: NCAs, Refinitiv Datastream, ESMA.

**A.56 Net short positions in EU financial shares and equity prices**

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Note: Market value of net short selling positions in EA financial shares as percentage of market value of EA financial sectoral index. 01/03/2020=100. The 0.1% threshold entered into force on 31 January 2022 for all EU countries. NO, IS and LI continue to use the 0.2% threshold until the CDR 2022/27 is incorporated in their national legislation. Partially or fully missing data for the following countries: DK, GR, NL, PL and RO.
Sources: NCAs, Refinitiv Datastream, ESMA.

**A.57 Euro area interest rates**

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

**A.58 Euribor rates by maturity**

| 1.5 | 1.3 | 1.1 | 0.9 | 0.7 | 0.5 | 0.3 | 0.1 | 0.0 | 0.1 | 0.3 | 0.5 | 0.7 | 0.9 | 1.1 | 1.3 | 1.5 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1W | 1M | 3M | 6M | 1Y |

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

**A.59 Interbank rate spreads to overnight index swap**

<table>
<thead>
<tr>
<th>150</th>
<th>125</th>
<th>100</th>
<th>75</th>
<th>50</th>
<th>25</th>
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</thead>
<tbody>
<tr>
<td>Euribor</td>
<td>GBP Libor</td>
<td>USD Libor</td>
<td>5Y-MA Euribor</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Spreads between 3M interbank interest rates and 3M overnight index swaps, in bps.
Sources: Refinitiv Datastream, ESMA.

**A.60 Interbank overnight activity**

<table>
<thead>
<tr>
<th>80</th>
<th>70</th>
<th>60</th>
<th>50</th>
<th>40</th>
<th>30</th>
<th>20</th>
<th>10</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESTR</td>
<td>SONIA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: 1M-MA of daily lending volumes on Euro short-term rate (GSTR), EUR bn, and Sterling Overnight Index Average (SONIA), GBP bn.
Sources: ECB, Refinitiv EIKON, ESMA.
Commodities

A.61
Dutch Natural Gas Futures open interest
2,500

A.62
Dutch Natural Gas Futures net positions
500

Note: Open interests on Dutch Natural Gas Futures by commercial, financial, and investment firms, in mn. Spikes might reflect data quality issues.
Sources: ESMA Weekly Commodity Derivatives Positions Reporting, ESMA.

Note: Net number of positions (long minus short) on Dutch Natural Gas Futures held by commercial traders and financials traders (funds and other financial institutions) in mn.
Sources: ESMA Weekly Commodity Derivatives Positions Reporting, ESMA.
Asset management

Fund industry

A.63 EU fund performance

4.5
3.5
2.5
1.5
0.5
-0.5
-1.5


Alternatives Equity Mixed Assets

Note: EU27-domiciled investment funds’ annual average monthly returns, asset weighted, in %.
Sources: Thomson Reuters Lipper, ESMA.

A.64 Volatility of EU fund returns

35
30
25
20
15
10
5
0


Alternative Equity Bond Mixed assets Commodity Real estate

Note: Annualised 40-day historical return volatility of EU27-domiciled investment funds, in %.
Sources: Refinitiv Lipper, ESMA.

EU fund assets by market segment

A.65

6
5
4
3
2
1

Apr-20 Aug-20 Dec-20 Apr-21 Aug-21 Dec-21 Apr-22

Alternative Bond Equity Mixed Other Real estate

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

EU fund NAV by legal form

A.66

20
18
16
14
12
10
8
6
4
2

1Q17 1Q18 1Q19 1Q20 1Q21 1Q22

AIFs UCITS

Note: NAV of EEA30 funds, EUR tn.
Sources: EFAMA, ESMA.

EU fund NAV by market segment

A.67

6
5
4
3
2
1

Apr-20 Aug-20 Dec-20 Apr-21 Aug-21 Dec-21 Apr-22

Alternative Bond Equity Mixed Other Real estate

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

EU fund leverage by market segment

A.68

1.40
1.35
1.30
1.25
1.20
1.15
1.10
1.05
1.00

Apr-20 Aug-20 Dec-20 Apr-21 Aug-21 Dec-21 Apr-22

Alternative Bond Equity Mixed Other Real estate

Note: Leverage of EA investment funds by fund type computed as the AuM/NAV ratio.
Sources: ECB, ESMA.
**A.69**

EU fund flows by fund type

<table>
<thead>
<tr>
<th>3Q20</th>
<th>4Q20</th>
<th>1Q21</th>
<th>2Q21</th>
<th>3Q21</th>
<th>4Q21</th>
<th>1Q22</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternatives</td>
<td>Bond</td>
<td>Commodity</td>
<td>Equity</td>
<td>Mixed</td>
<td>MMF</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

**A.70**

EU fund flows by regional investment focus

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Emerging markets BF</td>
<td>Emerging markets EF</td>
<td>Europe BF</td>
<td>Europe EF</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: EU27 bond and equity fund net flows (BF and EF) by regional investment focus, in % of NAV. Sources: Refinitiv Lipper, ESMA.

**A.71**

EU bond fund flows by regional investment focus

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Europe</td>
<td>North America</td>
<td>Global</td>
<td>Emerging markets</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: EU27 bond fund net flows by regional investment focus, in % of NAV. Sources: Refinitiv Lipper, ESMA.

**A.72**

EU equity fund flows by regional investment focus

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Emerging markets</td>
<td>Global</td>
<td>North America</td>
<td>Western Europe</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: EU27 equity fund net flows by regional investment focus, in % of NAV. Sources: Refinitiv Lipper, ESMA.

**A.73**

Net flows in EU bond funds

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Corporate</td>
<td>Government</td>
<td>Emerging</td>
<td>HY</td>
<td>Mixed</td>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

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.

**A.74**

Net asset valuation of EU funds

<table>
<thead>
<tr>
<th>1Q17</th>
<th>1Q18</th>
<th>1Q19</th>
<th>1Q20</th>
<th>1Q21</th>
<th>1Q22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital flows</td>
<td>Valuation effect</td>
<td>AuM (rhs)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Net valuation effect related to the AuM of EU 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.
A.75 Liquidity risk profile of EU bond funds

A.76 Cash held by EU corporate bond funds

A.77 Credit quality of EU bond funds’ assets

A.78 Maturity of EU bond funds’ assets

Money market funds

A.79 EU MMF performance

A.80 EU MMF flows by domicile
**Alternative funds**

### A.85 EU hedge fund returns

![Graph showing EU hedge fund returns]

**Note:** EU27 domiciled alternative fund monthly returns, in %. The graph shows the returns’ median, the difference between the returns corresponding to the 2nd and 98th percentiles and the difference between the returns corresponding to the 1st and 3rd quartiles. Sources: Refinitiv Lipper, ESMA.

### A.86 EU alternative fund performance by strategy

![Graph showing EU alternative fund performance by strategy]

**Note:** Growth of EU27 alternative fund performance indices by strategy: hedge fund index (HF), arbitrage (Arb), commodity trading advisor (CTA), distressed debt (Dis), event driven (ED), fixed income (FI), long/short equity (LS), macro, multi-strategy, relative value (RV), in %. Sources: Eurekahedge, ESMA.
**EU alternative fund flows by domicile**

-1.0 0.0 1.0 1.5 2.0
-1.0 0.0 1.0 1.5 2.0

Note: Alternative mutual fund monthly net flows by domicile, in % of NAV. Data on alternative mutual funds represent only a subset of the entire alternative fund industry.
Sources: Refinitiv Lipper, ESMA.

**EU alternative fund assets and leverage**

Direct and indirect

Note: NAV and AuM of EA alternative funds, EUR bn. Leverage computed as the AuM/NAV ratio. 1Y-MA=one-year moving average for the leverage ratio.
Sources: ECB, ESMA.

**Alternative fund flows by geographical focus**

Emerging markets Global North America Western Europe

Note: EU27-domiciled alternative mutual funds net flows by geographical investment focus, in % of NAV. Data on alternative mutual funds represent only a subset of the entire alternative fund industry.
Sources: Refinitiv Lipper, ESMA.

**Direct and indirect EU property fund flows**

Note: Two-months cumulative flows for direct and indirect EU27-domiciled property funds. Indirect property funds invest in securities of real estate companies, including REITs.
Sources: Morningstar, ESMA.

**EU ETF returns**

2nd/98th perc. Median

Note: Average yearly returns by month of EU27-domiciled ETFs, in %. The graph shows the median and average asset-weighted returns and the difference between the returns corresponding to the 98th and 2nd percentile.
Sources: Refinitiv Lipper, ESMA.

**EU ETF returns volatility**

Note: Annualised 40-day historical return volatility of EU27-domiciled ETFs, in %.
Sources: Refinitiv Lipper, ESMA.
A.93 EU ETF and NAV by domicile

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

A.94 EU ETF NAV by asset type

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

A.95 EU ETF tracking error

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

A.96 EU and US ETF flows by domicile

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

A.97 Assets of leveraged EU ETFs

Note: Total assets of leveraged long and leveraged short ETFs with primary listings in Europe, in EUR bn and total number of products (rhs), in thousand. Sources: ETFGI, ESMA.

A.98 Average beta values for EU ETFs

Note: Leveraged ETFs are self-reported. The annual average monthly beta is measured as the volatility of a fund return in comparison to its benchmark. An unleveraged ETF replicating its benchmark will typically have a beta close to 1.0. Sources: Refinitiv Lipper, ESMA.
A.99
Assets of EU ETFs by replication method

A.100
Flows into EU ETFs by replication method

Note: Total assets of physical and synthetic ETFs with primary listings in Europe, in EUR bn and total number of products (rhs).
Sources: ETFGI, ESMA
**Consumers**

### Investment resources available to households

**A.101**
EU household disposable income growth

![Graph showing disposable income growth over time]

Note: Annualised growth rate of household 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.102**
EU household saving and investment rates

![Graph showing saving and investment rates over time]

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 the investment rate. Sources: ECB, ESMA.

### Asset allocation by retail investors

**A.103**
EU investor sentiment

![Graph showing investor sentiment over time]

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 growth rates in financial assets

![Graph showing financial asset growth rates over time]

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

**A.105**
EU household growth rates in financial assets

![Graph showing financial asset growth rates over time]

Note: Average annualised growth rates of financial asset classes held by EU27 households, in %. IF shares=investment fund shares. Ins.=insurance companies, Other assets=other accounts receivable/payable. Sources: ECB, ESMA.

**A.106**
EU household financial assets by class

![Graph showing financial assets by class over time]

Note: Financial assets of EU27 households, EUR bn, 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.107
Share of securities investments in EU household assets

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.

A.108
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) from sectoral financial accounts. Liabilities multiplied by -1 to present as outflows.
Sources: ECB, ESMA.

A.109
UCITS net flows by asset class for retail investors

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

A.110
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 redemption fees are available, in EUR tn. Share of passive and ETFs, in %.
Sources: Refinitiv Lipper, ESMA.

A.111
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.112
Bond UCITS market size by management type

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 passive and ETFs, in %.
Sources: Refinitiv Lipper, ESMA.
ESMA TRV Statistical Annex

 Costs and performance

A.113 Bond UCITS net flows by management type

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

A.114 Equity active funds closet index indicator

Note: Note: EU27 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% and AS < 50% and TE < 3% and AS < 50% and TE < 3% and R-squared (R2) > 95%.
Sources: Morningstar Direct, ESMA.

A.115 EU household portfolio returns

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

A.116 EU fund synthetic risk and reward indicator

Note: The calculated Synthetic Risk and Reward Indicator (SSRI) 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 volatility).
Sources: Refinitiv Lipper, ESMA.

A.117 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.118 UCITS retail investors net performance by asset class

Note: Evolution of net annual performance (net of ongoing costs (TER), subscription and redemption fees) of EU27 UCITS, retail investors only, by asset class, in %.
Sources: Refinitiv Lipper, ESMA.
A.119
Equity UCITS total costs by management type

<table>
<thead>
<tr>
<th>Year</th>
<th>Active</th>
<th>ETFs</th>
<th>Passive (excl. ETFs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2Q17</td>
<td>175</td>
<td>150</td>
<td>100</td>
</tr>
<tr>
<td>2Q18</td>
<td>150</td>
<td>125</td>
<td>75</td>
</tr>
<tr>
<td>2Q19</td>
<td>125</td>
<td>100</td>
<td>50</td>
</tr>
<tr>
<td>2Q20</td>
<td>100</td>
<td>75</td>
<td>25</td>
</tr>
<tr>
<td>2Q21</td>
<td>75</td>
<td>50</td>
<td>25</td>
</tr>
<tr>
<td>2Q22</td>
<td>50</td>
<td>25</td>
<td>25</td>
</tr>
</tbody>
</table>

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

A.120
Equity UCITS net performance by management type

<table>
<thead>
<tr>
<th>Year</th>
<th>Active</th>
<th>ETFs</th>
<th>Passive (excl. ETFs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2Q17</td>
<td>50</td>
<td>40</td>
<td>30</td>
</tr>
<tr>
<td>2Q18</td>
<td>40</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>2Q19</td>
<td>30</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>2Q20</td>
<td>20</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>2Q21</td>
<td>10</td>
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<td>-10</td>
</tr>
<tr>
<td>2Q22</td>
<td>0</td>
<td>-10</td>
<td>-20</td>
</tr>
</tbody>
</table>

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

A.121
Bond UCITS total costs by management type

<table>
<thead>
<tr>
<th>Year</th>
<th>Active</th>
<th>ETFs</th>
<th>Passive (excl. ETFs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2Q17</td>
<td>125</td>
<td>100</td>
<td>75</td>
</tr>
<tr>
<td>2Q18</td>
<td>100</td>
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</tr>
<tr>
<td>2Q20</td>
<td>50</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>2Q21</td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>2Q22</td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
</tbody>
</table>

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
Bond UCITS net performance by management type

<table>
<thead>
<tr>
<th>Year</th>
<th>Active</th>
<th>ETFs</th>
<th>Passive (excl. ETFs)</th>
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<tbody>
<tr>
<td>2Q17</td>
<td>10</td>
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<td>4</td>
</tr>
<tr>
<td>2Q18</td>
<td>8</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>2Q19</td>
<td>4</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>2Q20</td>
<td>2</td>
<td>0</td>
<td>-2</td>
</tr>
<tr>
<td>2Q21</td>
<td>0</td>
<td>-2</td>
<td>-4</td>
</tr>
<tr>
<td>2Q22</td>
<td>-2</td>
<td>-4</td>
<td>-6</td>
</tr>
</tbody>
</table>

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.

A.123
EU consumer complaints

<table>
<thead>
<tr>
<th>Year</th>
<th>NCA</th>
<th>Firms (rhs)</th>
<th>Average total (rhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1Q20</td>
<td>4,000</td>
<td>2,000</td>
<td>3,000</td>
</tr>
<tr>
<td>3Q20</td>
<td>6,000</td>
<td>3,000</td>
<td>4,000</td>
</tr>
<tr>
<td>1Q21</td>
<td>8,000</td>
<td>4,000</td>
<td>5,000</td>
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<tr>
<td>3Q21</td>
<td>10,000</td>
<td>5,000</td>
<td>6,000</td>
</tr>
<tr>
<td>1Q22</td>
<td>12,000</td>
<td>6,000</td>
<td>7,000</td>
</tr>
</tbody>
</table>

Note: Number of complaints recorded by quarterly-reporting NCAs (n=14) 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 1Q20 to 1Q22.
Sources: ESMA complaints database.

A.124
EU consumer complaints by type of firm involved

<table>
<thead>
<tr>
<th>Year</th>
<th>Art3-exempt firm</th>
<th>UCITS Manco</th>
<th>MiFID IP</th>
<th>Credit institution</th>
<th>Total with firm type reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>1Q20</td>
<td>1,000</td>
<td>2,000</td>
<td>3,000</td>
<td>4,000</td>
<td>10,000</td>
</tr>
<tr>
<td>3Q20</td>
<td>2,000</td>
<td>4,000</td>
<td>6,000</td>
<td>8,000</td>
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<td>1Q21</td>
<td>3,000</td>
<td>6,000</td>
<td>9,000</td>
<td>12,000</td>
<td>30,000</td>
</tr>
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<td>3Q21</td>
<td>4,000</td>
<td>8,000</td>
<td>14,000</td>
<td>18,000</td>
<td>44,000</td>
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<td>1Q22</td>
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<td>10,000</td>
<td>20,000</td>
<td>30,000</td>
<td>55,000</td>
</tr>
</tbody>
</table>

Note: Share of complaints for quarterly-reporting NCAs (n=14) received from consumers and via firms by type of firm involved, excluding complaints with firm type recorded, %. "Total with firm type reported"=Number of complaints via these reporting channels excluding those with no firm type recorded. "MiFID IP"=MiFID investment firm. UCITS Manco=UCITS management company. "Art3-exempt firm"=Firm exempt under Article 3 of MiFID.
Sources: ESMA complaints database.
A.125
EU complaints by underlying cause

Note: Share of complaints for quarterly-reporting NCAs (n=14) 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 including those with none of the listed causes recorded.
Sources: ESMA complaints database

A.126
EU complaints by type of financial instrument

Note: Share of complaints from quarterly-reporting NCAs (n=14) received direct from consumers and via firms by type of financial instrument, where none 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'. 'Total complaints'=Number of complaints via these reporting channel whether or not further categorisation possible. 'CFDs'=Contracts for Differences.
Sources: ESMA complaints database

A.127
EU complaints by MiFID II service category

Note: Share of complaints for quarterly-reporting NCAs (n=14) 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
Infrastructures and services

Trading venues and MiFID entities

A.128 EU equity trading by trading type

Note: Type of equity trading in the EEA as a percentage of total turnover. Total equity trading turnover in EUR trillion (rhs). Last available data point is May 2022. PL data included from 2021 onwards. Sources: FINOS, FITRS, ESMA.

A.129 EU trading turnover by type of assets

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

A.130 EU circuit breaker occurrences by market capitalisation

Note: Weekly number of circuit-breaker trigger events by type of financial instrument and by market cap registered on 29 EEA30 trading venues for all constituents of the STOXX Europe Large/Mid/Small 200 and a large sample of ETFs tracking these indices or some of their subindices. Sources: Morningstar Real-Time Data, ESMA.

A.131 EU circuit breaker trigger events by sector

Note: Percentage of circuit-breaker trigger events by economic sector registered on 26 EEA30 trading venues for all constituents of the STOXX Europe Large/Mid/Small 200. Results displayed as weekly aggregates. Sources: Morningstar Real-Time Data, ESMA.

A.132 EU trading system capacity proxy

Note: Daily and 3M-MA of trading volumes on 29 EEA30 trading venues for all constituents of the STOXX Europe Large/Mid/Small 200 and a large sample of ETFs tracking these indices or some of their subindices, in EUR bn. Capacity computed as the average across trading venues of the ratio of daily trading volume over maximum volume observed since 31/03/2016, in %. Sources: Morningstar Real-Time Data, ESMA.

A.133 EU equity market concentration

Note: Concentration of notional value of equity trading by national indices computed as a 1M-MA of the Hirschhold-Hirschmann index, in %. Cboe indices included are AT 20, BE 20, DE 30, DK 25, ES 35, FI 25, FR 40, IE 20, IT 40, NL 25, PT 20 and SE 30. Sources: Cboe, ESMA.
Central counterparties

**A.134 Initial margins held at EU and UK CCPs**

Note: Initial margin required as well as additional margin posted by EU and UK CCPs, in EUR bn. Sources: Clarus Financial Technology, CPMI-IOSCO PQD, ESMA.

**A.135 Margin breaches at selected EU CCPs**

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 31 Mars 2022. Sources: Clarus Financial Technology, PQD, ESMA.

**A.136 Initial margins held at EU CCPs by asset class**

Note: Outstanding amounts of initial margin required and excess collateral received by EU27 and UK CCPs for derivatives (CCP, CC&G, European Central Counterparty N.V and KDPW data missing), in EUR bn. Sources: TRs, ESMA.

**A.137 Initial margins held at EU and UK CCPs by account**

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

**A.138 IRD clearing volumes by CCP**

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.139 Credit derivatives clearing volumes by CCP**

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.
Central securities depositories

A.142 Settlement activity in EU CSDs by asset class

Note: Total value of settlement instructions in the EEA30 as reported by NCAs, in EUR bn, one-week moving averages. Missing data for some CSDs prior to mid-March 2020. Dotted lines represent one-year moving averages of the respective asset classes.

A.143 Settlement fails in EU CSDs by asset class

Note: Share of failed settlement instructions in the EEA30, in % of value, one-week moving averages. Missing data for some CSDs prior to mid-March 2020. Dotted lines represent one-year moving averages of the respective asset classes.

A.144 Number of settlement instructions in EU CSDs

Note: Total number of settlement instructions in the EEA30 as reported by NCAs, in thousand, one-week moving averages. Missing data for some CSDs prior to mid-March 2020. Dotted lines represent one-year moving averages of the respective asset classes.

A.145 Number of failed settlement instructions in EU CSDs

Note: Share of failed settlement instructions in the EEA30, in % of number of instructions, one-week moving averages. Missing data for some CSDs prior to mid-March 2020. Dotted lines represent one-year moving averages of the respective asset classes.
Credit rating agencies

A.146 Outstanding EU credit ratings issued by Big 3 CRAs

A.147 Share of outstanding EU credit ratings: Big 3 CRAs vs. rest

Note: Evolution of the number of outstanding EEA30 issuer and instrument ratings by debt category. Indexed 1Q16=100. S&P, Moody’s and Fitch. NFC = non financial, Fin = financial, Ins = insurance, Intl = international, Reg = regional, Supra = supranational.

A.148 Changes in outstanding EU SFI ratings

A.149 Changes in outstanding EU covered bond ratings

Note: Number of withdrawn and new ratings for structured finance instruments, EEA30 ratings. Sources: RADAR, ESMA.

Financial benchmarks

A.150 IRDs linked to new RFRs

A.151 IRDs linked to Euribor and Libor

Note: Gross notional amount of IRD outstanding referencing new benchmarks, EUR tn. Sources: TRs, ESMA.
A.152
**€STR rate**

-0.83
-0.78
-0.73
-0.68
-0.63
-0.58
-0.53
-0.48


Note: Rates at the 25th and 75th percentiles of total volumes as well as the trimmed one, after removing the top and bottom 25% and calculating the mean of the remaining 50% of the volume-weighted distribution of rates. Sources: ECB, ESMA.

A.153
**€STR volumes**

70
60
50
40
30
20
10
0

0 Apr-21 Jul-21 Oct-21 Jan-22 Apr-22

Note: Total nominal value of transactions before trimming, in EUR bn. Number of transactions before trimming. Sources: ECB, ESMA.
Market based finance

Capital markets financing

A.154 Total EU market financing

- Debt securities
- Loans
- Others

Note: Liabilities of EA non-financial corporations (NFCs), 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.155 Stock returns since IPO launch

- 0% - 5%
- 5% - 10%
- 10% - 25%
- > 100%
- (-50%) - (-100%)
- (0%) - (-10)%
- (-10%) - (-25%)
- (-25%) - (-50%)
- (-50%) - (-100%)

Note: Stock performance of IPOs launched in 2020 and 2021 by stock return buckets. Orange color indicates negative performance.
Sources: Refinitiv Eikon, ESMA.

A.156 EU equity issuance by deal type

- IPO
- 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.

A.157 EU corporate bond issuance by rating

- NR issuance (rhs)
- HY issuance (rhs)
- IG issuance (rhs)
- 5Y-MA issuance (rhs)

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

A.158 Corporate bond issuance by maturity buckets

- 1y-5y
- 5y-10y
- 10y-20y
- >20y

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

A.159 EU corporate bonds outstanding by rating

- Outstanding NR
- Outstanding HY
- Outstanding IG

Note: Quarterly investment-grade (rating => BBB-), high-yield (rating < BBB-) and non-rated outstanding amounts in the EEA30 (rhs), EUR bn.
Maturities < 12 months are excluded.
Sources: Refinitiv Eikon, ESMA.
**Small and medium-sized enterprises (SNEs)**

**A.166 EU SME trading volumes**

![Graph showing EU SME trading volumes over time](image)

Note: Monthly trading volumes on EEA30 venues of SME shares, EUR bn (lhs), and % share of total trading in shares (rhs). ‘Small’ = (0-20), ‘Medium’ = (20-100), ‘Large’ = (100-200). 2022 classification of SMEs is based on share market capitalisation in 2021.
Sources: FIRDS, FITRS, ESMA.

**A.167 Trading volumes on EU SME Growth Markets**

![Graph showing trading volumes on EU SME Growth Markets](image)

Note: SME trading volumes on GMs by segment MIC domicile and month, in EUR bn.
Sources: FIRDS, FITRS, ESMA.

**Market-based credit intermediation**

**A.168 EU sovereign repo market specialness**

![Graph showing EU sovereign repo market specialness](image)

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.169 EU sovereign repo market turnover**

![Graph showing EU sovereign repo market turnover](image)

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.

**A.170 Total assets of EU MMFs and other financial institutions**

![Graph showing total assets of EU MMFs and other financial institutions](image)

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.171 EU financial market interconnectedness**

![Graph showing EU financial market interconnectedness](image)

Note: EA loan and debt securities vis-à-vis MFI counterparts, as a share of total assets, investment funds and MMFs, in %.
Sources: ECB, ESMA.
Credit terms in EU SFT and OTC derivatives

<table>
<thead>
<tr>
<th>Price terms</th>
<th>Non-price terms</th>
</tr>
</thead>
<tbody>
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<td>2.25</td>
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<tr>
<td>2.50</td>
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<td>2.75</td>
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<td>3.75</td>
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</tbody>
</table>

1Q17 1Q18 1Q19 1Q20 1Q21 1Q22

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.

EU securities financing conditions

<table>
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<th>Non-price terms</th>
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<td>2.9</td>
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<tr>
<td>3.4</td>
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</table>

1Q17 1Q18 1Q19 1Q20 1Q21 1Q22

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 unchanged, 4=increased/improved somewhat, and 5=increased/improved considerably.

Sources: ECB, ESMA.
Sustainable finance

Environmental, social, and governance (ESG) investing

A.174  Global ESG leaders index performance

A.176  EU ESG fund assets

A.177  EU ESG equity fund flows

A.178  Number of EU and US climate-related controversies

A.179  Reputational Risk Index of EU firms

Note: MSCI ESG leaders total return indices, denominated in USD, indexed with 01/09/2019=100. Sources: Refinitiv Datastream, ESMA.

Note: Quarterly number of new climate-related controversies involving EEA financial sector firms (based on the STOXX Europe 600) and US financial sector firms (based on the S&P 500), and share of climate-related controversies. Climate-related controversies include greenhouse gas emissions, soy, forest burning, energy management, arctic drilling and coal-fired power plants. Sources: RepRisk, ESMA.

Note: Average quarterly RepRisk Index (RRI) for financial vs. non-financial sector firms from the STOXX Europe 600 index. The RRI captures firms’ reputational risk related to ESG issues based on reach and impact of public information, ranging from 0 (no risk) to 100 (maximum risk). Sources: RepRisk, ESMA.
### A.180 EU ESG equity fund returns

<table>
<thead>
<tr>
<th>Month</th>
<th>ESG</th>
<th>Non-ESG</th>
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<tr>
<td>Oct-20</td>
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<td></td>
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<td>Jun-21</td>
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<td>Oct-21</td>
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<tr>
<td>Feb-22</td>
<td></td>
<td></td>
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<tr>
<td>Jun-22</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

### A.181 EU ESG ETF assets

<table>
<thead>
<tr>
<th>Month</th>
<th>ESG</th>
<th>Equity</th>
<th>Other</th>
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</thead>
<tbody>
<tr>
<td>Jun-20</td>
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<td>Oct-20</td>
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<tr>
<td>Feb-21</td>
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<tr>
<td>Jun-21</td>
<td></td>
<td></td>
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<tr>
<td>Oct-21</td>
<td></td>
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<td></td>
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<td>Feb-22</td>
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<tr>
<td>Jun-22</td>
<td></td>
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</tbody>
</table>

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.

### Sustainable debt

#### A.182 EU ESG bonds outstanding

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Green</th>
<th>Social</th>
<th>Other</th>
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<tbody>
<tr>
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<td>1,000</td>
<td></td>
<td></td>
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<tr>
<td>Q2 2018</td>
<td>1,200</td>
<td></td>
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<tr>
<td>Q2 2019</td>
<td>1,100</td>
<td></td>
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</tr>
<tr>
<td>Q2 2020</td>
<td>1,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q2 2021</td>
<td>1,100</td>
<td></td>
<td></td>
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<tr>
<td>Q2 2022</td>
<td>1,200</td>
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</tr>
</tbody>
</table>

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

#### A.183 EU green bond quarterly issuance

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Private sector</th>
<th>Public sector</th>
<th>SY-MA issuance</th>
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<tbody>
<tr>
<td>Q2 2017</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Q2 2018</td>
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<tr>
<td>Q2 2019</td>
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<tr>
<td>Q2 2020</td>
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<tr>
<td>Q2 2021</td>
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<tr>
<td>Q2 2022</td>
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</table>

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

#### A.184 Labelled EU green bond issuance

<table>
<thead>
<tr>
<th>Year</th>
<th>Green-labelled</th>
<th>Other</th>
<th>% other (rhs)</th>
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<td>2017</td>
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<td>2020</td>
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<tr>
<td>2021</td>
<td>250</td>
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<tr>
<td>2022</td>
<td>300</td>
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</table>

Note: ESG bond gross issuance in the EEA30, EUR bn, and share of other ESG bonds (rhs), in %. Other = all ESG bonds not labelled “Green” by the Climate Bond Initiative and/or aligned with the ICMA Green Bond Principles. Sources: Refinitiv EIKON, ESMA.

#### A.185 EU social bond issuance by project type

<table>
<thead>
<tr>
<th>Year</th>
<th>Socio-economic</th>
<th>Pandemic</th>
<th>Infrastructure &amp; Services</th>
<th>Housing</th>
<th>Healthcare</th>
<th>Equality &amp; Diversity</th>
<th>Education</th>
<th>Total issuance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>2019</td>
<td>0</td>
<td>0</td>
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<tr>
<td>2020</td>
<td>0</td>
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<td>0</td>
<td>0</td>
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<tr>
<td>2021</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>2022</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tbody>
</table>

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.
Carbon markets

A.188 EU emission allowance prices

Note: Daily settlement price of European Emission Allowances (EUA) on European Energy Exchange spot market, in EUR/CO2.
Sources: Refinitiv Datastream, ESMA.

A.189 EU emission allowance returns volatility

Note: Rolling 5-day standard deviation of daily changes in EU emission allowance spot prices, in %.
Sources: Refinitiv EIKON, ESMA.

A.190 Share of hedging positions in EUA futures by non-financials

Note: Share of hedging and non-hedging positions in %. Sources: ESMA commodity derivatives weekly position reporting.

A.191 Number of positions in EUA derivatives held by funds

Note: Weekly number of long and short positions in EU emission allowance derivative contracts held by investment funds, four-week moving averages.
Sources: ESMA commodity derivatives weekly position reporting.
A.192
Number of EU firms disclosing Scope 1 GHG emissions

Note: Number of EEA-domiciled firms listed in the EU disclosing Scope 1 (direct) greenhouse gas emissions, by market capitalisation and statement year. SMEs=below 200mn; Medium-large=from 200mn to 2bn; Large=from 2bn to 20bn; Very large=above 20bn. Data through June 2022.
Sources: Refinitiv EIKON, FIRDS, ESMA.

A.193
Share of EU firms disclosing GHG emissions target

Note: Share of EEA-domiciled firms listed in the EU disclosing a greenhouse gas emission reduction target, by market capitalisation. SMEs=below 200mn; Medium-large=from 200mn to 2bn; Large=from 2bn to 20bn; Very large=above 20bn.
Sources: Refinitiv EIKON, FIRDS, ESMA.
Financial innovation

Crypto assets

A.194
Crypto asset market capitalisation

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

A.195
Crypto asset prices

Note: Prices of selected crypto-assets, EUR thousand.
Sources: Refinitiv Datastream, ESMA.

A.196
Crypto asset price volatilities

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.197
Crypto asset trading volumes

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

A.198
Stablecoin market capitalisation

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

A.199
Stablecoin trading volumes

Note: Trading volumes of Binance USD, Tether, USD Coin and other stablecoins, in EUR tn.
Sources: CoinMarketCap, ESMA.
### A.200 Bitcoin futures market

<table>
<thead>
<tr>
<th></th>
<th>CME futures</th>
<th>ICE futures</th>
<th>Monthly change</th>
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<tr>
<td>Jun-20</td>
<td></td>
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Note: Total open interest in Bitcoin futures, in thousand of contracts, and change in monthly average total open interest, in %.

Sources: Refinitiv Datastream, ESMA.