Table of contents

Market environment 3

Securities markets 5
  Equity markets 5
  Sovereign-bond markets 6
  Corporate-bond markets 9
  Credit quality 11
  Short selling 12
  Money markets 13
  Derivatives markets 14

Infrastructures and services 16
  Trading venues and MiFID entities 16
  Central counterparties 17
  Central securities depositories 18
  Credit rating agencies 19
  Financial benchmarks 20

Asset management 22
  Fund industry 22
  Money market funds 25
  Alternative funds 26
  Exchange-traded funds 27

Consumers 29
  Investment resources available to households 29
  Asset allocation by retail investors 29
  Costs and performance 31
  Complaints 33

Market based finance 34
  Capital markets financing 34
  Market-based credit intermediation 36

Sustainable finance 38
  Green finance 38
  Emissions trading 39

Financial innovation 40
  Financial innovation 40
Market environment

A.1 Market price performance

Note: Return indices on EU28 equities (Datastream regional index), global commodities (S&P GSCI) converted to EUR, EA corporate and sovereign bonds (iBoxx EUR, all maturities), 01/05/2018=100.

A.2 Market volatilities

Note: Annualised 40D volatility of return indices on EU28 equities (Datastream regional index), global commodities (S&P GSCI) converted to EUR, EA corporate and sovereign bonds (iBoxx EUR, all maturities), in %.

A.3 Economic policy uncertainty

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 EUR exchange rates

Note: Spot exchange rates to Euro. Emerging is a weighted average (2016 GDP) of spot exchange rates for CNY, BRL, RUB, INR, MXN, IDR and TRY, 01/05/2018=100. Increases in value represent an appreciation of EUR.

A.5 Exchange rate implied volatilities

Note: Implied volatilities for 3M options on exchange rates, in %. 1Y-MA USD, 1Y-MA GBP are the one-year moving average of the implied volatility for 3M options on EUR-USD resp. EUR-GBP exchange rate.
Sources: Refinitiv EIKON, ESMA.

A.6 Market confidence

Note: European Commission survey of EU27 financial services sector and subsectors (NACE Rev 2 64, 65, 66). 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.7 Portfolio investment flows by asset class

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.

Sources: ECB, ESMA.

A.8 Investment flows by resident sector

Note: Quarterly Sector Accounts. Investment flows by EA resident sector in equity (excluding investment fund shares) and debt securities, EUR bn. 1Y-MA=one-year moving average of all investment flows.

Sources: ECB, ESMA.

A.9 Institutional investment flows

Note: EA institutional investment flows by type of investor, EUR bn. Other=financial vehicle corporations, mixed funds, other funds. 1Y-MA=one-year moving average of all investment flows.

Sources: ECB, ESMA.
Securities markets

**Equity markets**

**A.10**
Equity prices by sector

**A.11**
Price performance of national indices

**Notes:**
- STOXX Europe 600 sector returns indices (01/05/2010=100). Sources: Refinitiv Datastream, ESMA.
- National equity indices from selected E.U.27 countries (01/05/2010=100). Sources: Refinitiv Datastream, ESMA.

**A.12**
Price performance

**A.13**
Price-earnings ratios

**A.14**
Return dispersion

**A.15**
Implied volatility

**Notes:**
- Price-Earnings Ratios based on average inflation-adjusted earnings from the previous 10 years (Cyclically Adjusted PE Ratio). Sources: Thomson Reuters Datastream, ESMA.
- Dispersion of the weekly returns on the main equity indices in the E.U.28. Sources: Refinitiv Datastream, ESMA.
- Implied volatility of EURO STOXX 50 (VSTOXX) and S&P 500 (VIX), in %. Sources: Refinitiv Datastream, ESMA.
A.16 Implied volatility by option maturity

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

A.17 Correlation STOXX Europe 600 and sectoral indices

Note: Correlations between daily returns of the STOXX Europe 600 and STOXX Europe 600 sectoral indices, calculated over 60-day rolling windows. Sources: Refinitiv Datastream, ESMA.

A.18 ESMA composite equity liquidity 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, Hufnagel ratio, turnover ratio, inverse turnover ratio, and market efficiency coefficient). The indicator range is between 0 (higher liquidity) and 1 (lower liquidity). Sources: Refinitiv Datastream, ESMA.

A.19 Bid-ask spread

Note: Liquidity measure as median of the bid-ask price percentage difference for the current EUS3 constituents of STOXX Europe Large 200, in %. Sources: Refinitiv Datastream, ESMA.

Sovereign-bond markets

A.20 Issuance and outstanding

Note: Sovereign bond gross issuance in the EEA30 (rhs), EUR bn, and outstanding amounts, EUR bn. Sources: Refinitiv Eikon, ESMA.

A.21 Issuance by credit rating

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.). Sources: Refinitiv Eikon, ESMA.
A.22 Rating distribution

Note: Outstanding amount of sovereign bonds in the EEA30 as of issuance date by rating category, in % of the total.
Sources: Refinitiv Eikon, ESMA.

A.23 Equity-sovereign bond correlation dispersion

Note: Dispersion of the correlation between daily returns of national equity indices and national sovereign debt return index, for 18 countries in the EU27, over a 60-day rolling window.
Sources: Refinitiv Datastream, ESMA.

A.24 Net 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.
Sources: Refinitiv Eikon, ESMA.

A.25 10Y yields

Note: Yields on 10Y sovereign bonds, selected countries, in %.
Sources: Refinitiv Datastream, ESMA.

A.26 10Y spreads

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

A.27 Yield dispersion

Note: Yield dispersion on 10Y sovereign bonds of 16 EU27 countries, in %.
Sources: Refinitiv Datastream, ESMA.
A.28 Volatility

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BE</td>
<td>0</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>DE</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>30</td>
<td>35</td>
</tr>
<tr>
<td>IT</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>30</td>
<td>35</td>
<td>40</td>
</tr>
<tr>
<td>ES</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>30</td>
<td>35</td>
<td>40</td>
<td>45</td>
</tr>
</tbody>
</table>

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

A.29 Yield correlation dispersion

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 25%</td>
<td>0</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>Core 50%</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>30</td>
<td>35</td>
</tr>
<tr>
<td>Bottom 25%</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>30</td>
<td>35</td>
<td>40</td>
</tr>
</tbody>
</table>

Note: Dispersion of correlations between 10Y DE Bund and 15 other EU27 country’s sovereign bond redemption yields over a 60-day rolling window.
Sources: Refinitiv Datasync, ESMA.

A.30 CDS spreads

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>0</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>US</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>30</td>
<td>35</td>
</tr>
<tr>
<td>SY-MA Europe</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>30</td>
<td>35</td>
<td>40</td>
</tr>
</tbody>
</table>

Note: Data behind CDS sovereign indices (5 years, mid-spread) in bps.
Sources: Refinitiv Datasync, ESMA.

A.31 CDS notional

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DE</td>
<td>0</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>ES</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>30</td>
<td>35</td>
</tr>
<tr>
<td>FR</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>30</td>
<td>35</td>
<td>40</td>
</tr>
<tr>
<td>IT</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>30</td>
<td>35</td>
<td>40</td>
<td>45</td>
</tr>
</tbody>
</table>

Note: Value of outstanding notional sovereign CDS for selected EU27 countries in USD bn.
Sources: DTCC, ESMA.

A.32 Bid-ask spreads

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bid-ask spread</td>
<td>0</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>1Y-MA</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>30</td>
<td>35</td>
</tr>
</tbody>
</table>

Note: Bid-ask spread as weighted average of bid-ask spreads throughout a month weighted by trading volume across 10 EU27 domestic markets (AT, BE, DE, ES, FI, FR, IE, IT, NL and PT) and Euro MTS, in bps.
Sources: MTS, ESMA.

A.33 ESMA composite sovereign bond liquidity index

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Euro MTS</td>
<td>0</td>
<td>0.2</td>
<td>0.4</td>
<td>0.6</td>
<td>0.8</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Domestic MTS</td>
<td>0.2</td>
<td>0.4</td>
<td>0.6</td>
<td>0.8</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>1Y-MA Domestic</td>
<td>0.4</td>
<td>0.6</td>
<td>0.8</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>1Y-MA Euro MTS</td>
<td>0.6</td>
<td>0.8</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
</tbody>
</table>

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 (Arbitrage Liquidity Coefficient, Bid-ask spread, Roll Liquidity Measure and Turnover). The indicator ranges between 0 (higher liquidity) and 1 (lower liquidity).
Sources: MTS, ESMA.
A.34 Liquidity

Note: Liquidity measured as median across countries of the bid-ask yields differences for 10Y sovereign bonds, in bps; 20 EU27 countries are included. Sources: Refinitiv Eikon, ESMA.

A.35 Liquidity dispersion

Note: Dispersion of liquidity measured as median across countries of the bid-ask yields differences for 10Y sovereign bonds, in bps; 20 EU27 countries are included. Sources: Refinitiv Eikon, ESMA.

A.36 Redenomination risk

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

Corporate bond markets

A.38 Yields by credit rating

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

A.39 Spreads by credit rating

Note: ICE BIS/AML EA corporate bond option-adjusted spreads by rating, in bps. 1Y-MA = one-year moving average of all indices. Sources: Refinitiv Datastream, ESMA.
A.40 Debt redemption profile by sector

Note: Quarterly redemptions over SY horizon by EEA30 private financial and non-financial corporations. EUR bn, Y-change difference between the sum of this year’s (four last quarters) and last year’s (8th to 18th last quarter) redemptions.
Sources: Refinitiv Eikon; ESMA.

A.41 Rating distribution

Note: Outstanding amount of corporate bonds in the EEA30 as of issuance date by rating category, in % of the total.
Sources: Refinitiv Eikon, ESMA.

A.42 Hybrid capital instruments

Note: Hybrid capital instruments gross issuance in the EEA30. EUR bn, and outstanding amounts (rhs) EUR bn. According to Refinitiv Eikon, hybrid capital instruments refer to bonds having the qualities of both an interest-bearing security (deb) and equity.
Sources: Refinitiv Eikon; ESMA.

A.43 Sovereign-corporate yield correlation

Note: Dispersion of correlation between Barclays Aggregate for corporate and 10Y sovereign bond redemptions yields for AT, BE, ES, FR, IT and NL. Sources: Refinitiv Datastream, ESMA.

A.44 Bid-ask spreads and Amihud indicator

Note: Market iBoxx EUR Corporate bond index bid-ask spread, in %, computed as a one-month moving average of the iBoxx components in the current composition. 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.45 Turnover ratio and average trade size

Note: Average transaction size for the corporate bond segment as the ratio of nominal amount of settlement instructions to number of settled instructions, in EUR mn. Turnover is the one-month moving average of the ratio of trading volume over outstanding amount, in %. Sources: IHS Markit, ESMA.
Credit quality

A.46
SFI ratings issued by collateral type

Note: Number of rated structured finance instruments by asset class. ABS=Asset-backed securities; CDO=Collateralised debt obligations; CMBS=Commercial mortgage-backed securities; OTH=Other; RMBS=Residential mortgage-backed securities.
Sources: RADAR, ESMA.

A.47
SFI ratings outstanding by collateral type

Note: Outstanding EU ratings of 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.
Sources: RADAR, ESMA.

A.48
High-quality collateral outstanding

Note: Outstanding amount of high-quality collateral in the EEA30, EUR in billions. High-quality collateral is the sum of outstanding debt securities issued by EEA30 governments with a rating equal to or higher than BBB-. Quasi high-quality collateral is the outstanding corporate debt with a rating equal to or higher than AA-.
Sources: Thomson Reuters Eikon, ESMA.

A.49
Rating distribution of covered bonds

Note: Outstanding amount of covered bonds in the EEA30 as of issuance date by rating category, in % of the total.
Sources: Thomson Reuters Eikon, ESMA.

A.50
SFI rating changes

Note: Number of rating changes on securitised assets.
Sources: RADAR, ESMA.

A.51
Size of SFI rating changes

Note: Average size of upgrades and downgrades when credit rating agencies took rating actions on securitised assets, number of buckets traversed.
Sources: RADAR, ESMA.
A.52 Size of rating changes

Note: Average change in notches for long-term ratings for issuers and instruments (excl ICAP and CERVED). 2020 is year-to-date.
Sources: RADAR, ESMA.

A.53 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.54 Ratings drift

Note: 3-month moving average of net rating changes in 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. EU-27+UK ratings.
Sources: RADAR, ESMA.

A.55 Ratings volatility

Note: 3 month moving average of volatility of ratings by all credit rating agencies, excluding CERVED and ICAP, by asset class computed as number of rating changes over number of outstanding ratings.
Sources: RADAR, ESMA.

A.56 Value of net short positions in EU shares

Note: Market value of net short positions as a percentage of total market value in the EEA30. Number of shares part of a main national index on which short positions were reported by NCAs under the Short Selling Regulation.
Sources: National Competent Authorities, Refinitiv Datastream, ESMA.

A.57 Dispersion of net short positions in EU shares

Note: Dispersion of net short selling positions by country in the EEA30 as percentage of market value of those positions relative to each country’s blue-chip index market value.
Sources: National Competent Authorities, Refinitiv Datastream, ESMA.
A.58
Value of net short positions in EU shares by sector

A.59
Value of net short positions in EU sovereign debt

A.60
Net short positions in industrial shares and equity prices

A.61
Net short positions in financial shares and equity prices

Money markets

A.62
Interest rates

A.63
Spreads to overnight index swap
A.64 Interbank overnight activity

Note: 1M-MA of daily funding volumes on Euro Overnight Index Average (EONIA), EURibor, Euro short-term rate (ESTR), and Sterling Overnight Index Average (SONIA), GBP bn.

A.65 EONIA forwards

Note: Euro overnight index swap forwards in %. Sources: Thomson Reuters Datastream, ESMA.

Derivatives markets

A.66 OTC notional outstanding

Note: Gross notional amounts of outstanding OTC derivatives by product category, USD bn. Sources: Bank for International Settlements, ESMA.

A.67 OTC market value

Note: Gross market values of outstanding OTC derivatives by category, USD bn. Gross implied values represent the cost of replacing all open contracts at the prevailing market prices. Sources: Bank for International Settlements, ESMA.

A.68 ETD notional outstanding by product category

Note: Open interest in exchange-traded derivatives by product category, in USD bn. Sources: Bank for International Settlements, ESMA.

A.69 ETD turnover by product category

Note: Global average daily turnover in exchange-traded derivatives by product category, in USD bn. TY-MA FX=one-year moving average for foreign exchange. Sources: Bank for International Settlements, ESMA.
A.70
ETD notional outstanding by asset class

A.71
ETD turnover by asset class

Note: Open interest in exchange-traded derivatives by asset class, in USD.m.
Sources: Bank for International Settlements; ESMA

A.72
ETD notional outstanding by exchange location

A.73
ETD turnover by exchange location

Note: Open interest in exchange-traded derivatives by exchange location, in USD.m.
Sources: Bank for International Settlements; ESMA
Infrastructures and services

Trading venues and MiFID entities

A.74 Equity trading by trading type

A.75 Equity trading turnover by issuer origin

A.76 Trading turnover by type of assets

A.77 Share of turnover by type of assets

A.78 Circuit-breaker occurrences by market capitalisation

A.79 Circuit-breaker-trigger events by sector

Note: Number of daily circuit-breaker trigger events by economic sector registered on 34 EEA31 trading venues for all constituents of the STOXX Europe Large/MidSmall 200 and a large sample of ETFs tracking these indices or some of their subindices. Results displayed as weekly aggregation.
Sources: Morningstar Real-Time Data, ESMA.
A.80 Number of trading venues and systematic internalisers

Note: Number of trading venues registered under MiFID II/MIFIR by EEA31 National Competent Authorities and notified to ESMA by type.
Sources: ESMA Registers.

A.81 Data reporting services providers

Note: Number of data reporting services providers registered under MiFID II/MIFIR by EEA31 National Competent Authorities and notified to ESMA by type.
Sources: ESMA Registers.

Central counterparties

A.82 Initial Margins held at EU CCPs

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

A.83 Margin breaches

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 March 2020.
Sources: Clarus Financial Technology, PQD, ESMA.

A.84 IRD clearing volumes by CCP

Note: Quarterly notional volumes cleared for OTC and ETD IRDs in EUR, USD, JPY or GBP, in %. Total volumes in EUR tn.
Sources: Clarus Financial Technology, ESMA.

A.85 IRD subject to clearing obligation by CCP

Note: Market share on OTC central clearing of basis swaps, fixed-to-floating swaps, forward rate agreements and overnight indexed swaps in EUR, USD, JPY or GBP, in %. Quarterly notional volumes cleared, in EUR tn (rh axis).
Sources: Clarus Financial Technology, ESMA.
A.86 Credit derivatives clearing volumes by CCP

Note: Quarterly notional volumes cleared for CDS, CDX and CDX futures & swaptions in EUR, USD, JPY or GBP, in %. Total volumes in EUR bn.
Sources: Clarus Financial Technology, ESMA.

A.87 Credit derivatives subject to clearing obligation by CCP

Note: Market share on OTC central clearing of iTraxx Europe and iTraxx Crossover, in %. Quarterly notional volumes cleared, in EUR trillion (right axis).
Sources: Clarus Financial Technology, ESMA.

A.88 IRD trading volumes

Note: Daily trading volumes for EU28-currency-denominated IRD products (EUR, HUF, PLN, GBP). Products include IRS, basis swaps, FRA, inflation swaps, OIS. 40-day moving average notional, USD bn. SwapsInfo data are based on publicly available data from DTCC Trade Repository LLC and Bloomberg Swap Data Repository.

A.89 CDS index trading volumes

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

Central securities depositories

A.90 Settlement activity

Note: Total value of settled transactions in the EEA31 as reported by NCAs, in EUR bn, one-week moving averages.

A.91 Settlement fails

Note: Share of failed settlement instructions in the EEA31, in % of value, one-week moving averages.
Sources: National Competent Authorities, ESMA.
### A.92
**Number of settlement instructions**

<table>
<thead>
<tr>
<th>Month</th>
<th>Corporate bonds</th>
<th>Government bonds</th>
<th>Equities (rhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar-19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jun-19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sep-19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec-19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar-20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jun-20</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Total number of settlement instructions in the EEA13 as reported by NCAs, in thousand, one-week moving averages. Dotted lines represent six-month moving averages. Sources: National Competent Authorities, ESMA.

### A.93
**Number of failed settlement instructions**

<table>
<thead>
<tr>
<th>Month</th>
<th>Corporate bonds</th>
<th>Government bonds</th>
<th>Equities (rhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jun-19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aug-19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oct-19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dec-19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb-20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr-20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jun-20</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Share of failed settlement instructions in the EEA13, in % of total number of instructions, one-week moving averages. Dotted lines represent six-month moving averages. Sources: National Competent Authorities, ESMA.

### Credit rating agencies

#### A.94
**Ratings drift**

- Non-financial
- Financial
- Sovereign
- Supranational

Note: 3-month moving average of net rating changes in 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. EU-27 + UK ratings. Sources: RADAR, ESMA.

#### A.95
**Ratings volatility**

Note: 3-month moving average of volatility of ratings by all credit rating agencies, excluding CERVED and ICAP, by asset class, computed as the number of rating changes over number of outstanding ratings. Sources: RADAR, ESMA.

### A.96
**Outstanding ratings issued by the top 3 CRAs**

<table>
<thead>
<tr>
<th>Period</th>
<th>Non-financial</th>
<th>Financial</th>
<th>Sovereign</th>
<th>Sub-sovereign</th>
<th>Structured finance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2Q15</td>
<td>70</td>
<td>100</td>
<td>110</td>
<td>80</td>
<td>90</td>
</tr>
<tr>
<td>3Q16</td>
<td>80</td>
<td>120</td>
<td>120</td>
<td>90</td>
<td>100</td>
</tr>
<tr>
<td>2Q17</td>
<td>90</td>
<td>130</td>
<td>130</td>
<td>100</td>
<td>110</td>
</tr>
<tr>
<td>4Q18</td>
<td>100</td>
<td>140</td>
<td>140</td>
<td>110</td>
<td>120</td>
</tr>
<tr>
<td>2Q19</td>
<td>110</td>
<td>150</td>
<td>150</td>
<td>120</td>
<td>130</td>
</tr>
</tbody>
</table>

Note: Evolution of outstanding ratings, indexed 3Q15=100. S&P, Moody’s and Fitch. Sources: RADAR, ESMA.

### A.97
**Outstanding ratings excluding the top 3 CRAs**

Note: Evolution of outstanding ratings, indexed 3Q15=100. All CRAs excluding S&P, Moody’s and Fitch. Sovereign on right hand axis. Sources: RADAR, ESMA.
Changes in outstanding structured finance ratings

Note: Number of withdrawn and new ratings for structured finance instruments, EU-27+UK ratings. Sources: RADAR, ESMA.

Share of outstanding ratings Big 3 CRAs vs. others

Note: Share of outstanding ratings from S&P, Moody’s and Fitch, and ratings from all other CRAs, in %. Sources: RADAR, ESMA.

Financial benchmarks

EURIBOR rates

Note: EURIBOR fixing for 3, 6 and 12 month maturities. Sources: EMMI, ESMA.

IRSs linked to EONIA and Euribor by maturity

Note: Gross notional amount of IRS outstanding referencing EONIA, EONIA SWAP rate and EURIBOR, by maturities, as of 27 March 2020, EUR tr.
A.103 IRDs linked to reference rates

Note: Gross notional amount of IRS outstanding referencing benchmarks, by maturities. Other EEA includes NIBOR, PRIBOR, STIBOR, WIBOR and BUBOR. Other Third country benchmarks include BBSW, CDOR, JIBAR, TIBOR, TELBOR and MOSPRIM. As of 27 March 2020, EUR tns.
Sources: TRs, ESMA

A.104 Number of banks contributing to €STR

Note: Number of banks reporting transactions before trimming
Sources: ECB, ESMA

A.105 €STR rate

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.106 €STR volumes

Note: Total nominal value of transactions before trimming, in EUR bn. Number of transactions before trimming.
Sources: ECB, ESMA
Asset management

Fund industry

A.107 Fund performance

-2 0 2
Alternatives Equity Bond Commodity Mixed Assets

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

A.108 Fund volatility

0 10 20 30
Alternatives Equity Bond Commodity Mixed Real Estate

Note: Annualised 4Q historical return volatility of EU domiciled mutual funds in %.
Sources: Thomson Reuters Lipper, ESMA

Entities authorised under UCITS

A.109

Share of entities authorised under UCITS by country

United Kingdom 12%
France 21%
Luxembourg 15%

Note: Number of entities authorised under the UCITS Directive by national competent authorities of the Member States and notified to ESMA. Newly authorised entities and withdrawn entities on the right axis.
Sources: ESMA Registers.

Entities authorised under AIFMD

A.111

Share of entities authorised under AIFMD by country

United Kingdom 26%
France 17%

Note: Number of entities authorised under AIFMD by national competent authorities and notified to ESMA, in %.
Sources: ESMA Registers.

Note: Number of entities authorised under AIFMD by national competent authorities and notified to ESMA. Newly authorised entities and withdrawn entities on the right axis.
Sources: ESMA Registers.
A.113
Assets by market segment

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

A.114
NAV by legal form

Note: NAV of EU28 funds, EUR tn. Sources: EFAMA, ESMA.

A.115
NAV by fund market segment

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

A.116
Leverage by market segment

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

A.117
Fund flows by fund type

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

A.118
Fund flows by regional investment focus

Note: Bond and equity funds (BF and EF) flows over time since 2004 by regional investment focus, in % of NAV. Sources: Refinitiv Lopper, ESMA.
A.119
Bond fund flows by regional investment focus

A.120
Equity fund flows by regional investment focus

A.121
Net flows for bond funds

A.122
Net asset valuation

A.123
Liquidity risk profile of EU bond funds

A.124
Cash as percentage of assets

Note: Equity flows by regional investment focus, in % of NAV.
Sources: Refinitiv, Lipper, ESMA.

Note: Bond flows by regional investment focus, in % of NAV.
Sources: Refinitiv, Lipper, ESMA.

Note: Twelve-month cumulative net flows for 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: Thomson Reuters Lipper, ESMA.

Note: Effective average maturity of fund assets in years. ESMA liquidity ratio (ths., in reverse order).
Sources: Thomson Reuters Lipper, ESMA.

Note: Cash held by EU corporate bond funds, in % of portfolio holdings (%). Short positions can have a negative value.
Sources: Refinitiv, Lipper, ESMA.

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: Net asset valuation.

Note: 3Q14 2Q15 1Q16 4Q16 3Q17 2Q18 1Q19

AuM (rhs)
A.125 Credit quality of bond funds’ assets

![Graph showing credit quality of bond funds’ assets]

Note: Average credit quality (S&P ratings: 1=AAA 4=BBB, 10=DD). Sources: Thomson Reuters Lipper, ESMA.

A.126 Maturity of EU bond funds’ assets

![Graph showing maturity of EU bond funds’ assets]

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

Money market funds

A.127 MMF performance

![Graph showing MMF performance]

Note: EU-domiciled MMFs’ average yearly returns by month, asset-weighted, in %. The graph shows the median and average asset-weighted returns and the difference between the returns corresponding to the 50th and the 2nd percentile/highest condition. Sources: Refinitiv Lipper, ESMA.

A.128 MMF flows by domicile

![Graph showing MMF flows by domicile]

Note: MMF net flows by domicile, in % per year. Sources: Refinitiv Lipper, ESMA.

A.129 MMF flows by geographical focus

![Graph showing MMF flows by geographical focus]

Note: MMF net flows by geographical focus, in % of NAV. Sources: Refinitiv Lipper, ESMA.

A.130 Assets and leverage

![Graph showing assets and leverage]

Note: NAV and AuM of EA MMFs, EUR tr. Leverage computed as the AuM/NAV ratio. 5Y-MA=five-year moving average of the leverage ratio. Sources: ECB, ESMA.
Alternative funds

A.133 Hedge fund returns

Note: EU-domiciled hedge 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.135 Fund flows by domicile

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

A.134 Hedge fund performance by strategy

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

A.136 Assets and leverage

Note: NAV and AuM of EA hedge funds, EUR bn. Leverage computed as the AuM/NAV ratio. 1Y-MA—one-year moving average for the leverage ratio. Sources: ECB, ESMA.
A.137
Alternative fund flows by geographical focus

Direct and indirect property fund flows

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

Exchange-traded funds

A.139
Returns

4

A.140
Volatility

Note: EU-domiciled ETFs' average yearly returns by month, asset-weighted, in %. The graph shows the median and average asset-weighted returns and the difference between the returns corresponding to the 80th and the 2nd percentile (light blue corridor). Sources: Refinitiv, ESMA

A.141
NAV and number by domicile

6

A.142
NAV by asset type

Note: NAV of ETFs, EUR bn, and number of ETFs. Sources: Refinitiv, ESMA

Note: Two-month cumulative flows for direct and indirect EU property funds. Indirect property funds invest in securities of real estate companies, including Real Estate Investment Trusts (REITs). Sources: Morningstar, ESMA.
A.143 Tracking error

<table>
<thead>
<tr>
<th>Date</th>
<th>ETFs</th>
<th>MFs index trackers</th>
<th>UCITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jun-18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oct-18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb-19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jun-19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oct-19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb-20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jun-20</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

A.145 Assets of leveraged European ETFs

<table>
<thead>
<tr>
<th>Year</th>
<th>Physical - assets</th>
<th>Synthetic - assets</th>
<th>Number of leveraged ETFs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.146 Average beta values for European ETFs

<table>
<thead>
<tr>
<th>Year</th>
<th>Leveraged (Short)</th>
<th>Leveraged (Long)</th>
<th>Unleveraged (Short)</th>
<th>Unleveraged (Long)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jun-18</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oct-18</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb-19</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jun-19</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oct-19</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb-20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jun-20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.147 Assets of European ETFs by replication method

<table>
<thead>
<tr>
<th>Year</th>
<th>Physical - assets</th>
<th>Synthetic - assets</th>
<th>Physical - number (rhs)</th>
<th>Synthetic - number (rhs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.

A.148 Flows into European ETFs by replication method

<table>
<thead>
<tr>
<th>Year</th>
<th>Physical net flows</th>
<th>Synthetic net flows</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Net flows of physical and synthetic ETFs with primary listings in Europe, in EUR bn.
Sources: ETFGI, ESMA.
Consumers

Investment resources available to households

A.149 Disposable income

A.150 Household saving and investment rates

A.151 Investor sentiment

A.152 Growth rates in financial assets

Asset allocation by retail investors

A.153 Household assets to liabilities ratio

A.154 Household financial assets by class

Note: Annualised growth rate of household gross disposable income adjusted for changes in pension entitlements for 16 EU27 countries (AT, BE, CZ, DE, DK, ES, FI, FR, IE, IT, NL, PL, PT, RO, SE and SI), in %. 5Y-MA=five-year moving average of the growth rate.

Sources: Eurostat, ESMA.

Note: Quarterly asset growth rates of financial assets held by EU28 households, in %. IF shares=investment fund shares.

Sources: ECB, ESMA.

Note: Financial assets and liabilities of EU28 households, EUR tn. Assets/liabilities ratio in %. Sources: ECB, ESMA.

Note: Financial assets of EU28 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.155
Share of securities investments in household assets

A.156
Net financial asset flows

A.157
Equity UCITS net flows by asset class

A.158
Equity UCITS market size by management type

A.159
Equity UCITS net flows by management type

A.160
Equity UCITS cumulative net flows

Note: Share of debt securities, equities and IF shares into the financial assets of EU28 households, in %. IF shares=investment fund shares.
Sources: ECB, ESMA.

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.

Note: EU equity UCITS market size by management type. All observations for which information on fund value, fund performance, net flows, subscription and redemption fees are available, EUR tn. Share of passive and ETFs in %, right-hand size.
Sources: Refinitiv Lipper, ESMA.

Note: EU equity UCITS market size by management type. All observations for which information on fund value, fund performance, net flows, subscription and redemption fees are available, EUR tn. Share of passive and ETFs in %, right-hand size.
Sources: Refinitiv Lipper, ESMA.

Note: EU equity UCITS market size by management type. All observations for which information on fund value, fund performance, net flows, subscription and redemption fees are available, EUR tn. Share of passive and ETFs in %, right-hand size.
Sources: Refinitiv Lipper, ESMA.

Note: EU equity UCITS market size by management type. All observations for which information on fund value, fund performance, net flows, subscription and redemption fees are available, EUR tn. Share of passive and ETFs in %, right-hand size.
Sources: Refinitiv Lipper, ESMA.
### Costs and performance

**A.161 Portfolio returns**

- **Returns**
- **5Y-MA**

Note: Annual average gross returns for a stylised household portfolio, in %. Asset weights, computed using ECB Financial Accounts by Institutional Sectors, are 37% for collective investment schemes (of which 12% mutual funds and 25% insurance and pension funds), 31% for deposits, 22% for equity, 7% debt securities and 3% for other assets. Costs, fees and other charges incurred for buying, holding or selling these instruments are not taken into account.

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

**A.163 Dispersion of returns all assets**

- **2Q16**
- **4Q16**
- **2Q17**
- **4Q17**
- **2Q18**
- **4Q18**
- **2Q19**
- **4Q19**
- **2Q20**

Note: Dispersion of net performances of EU UCITS, retail investors, adjusted for total expense ratio and load fees, in %. Distribution represents selected EU markets. Top mid-tail 15-distribution between the 75th and 90th percentile. Bottom mid-tail 15-distribution between the 10th and 25th percentile. Sources: Refinitiv Lipper, ESMA.

**A.165 UCITS total cost dispersion by asset class**

- **EU-27**
- **Equity**
- **Bond**
- **Mixed**
- **Alternative**
- **Money Market**

Note: EU-27 UCITS dispersion of total costs (ongoing costs, subscription and redemption fees), computed as the difference between gross and net returns, per asset class, retail investors, %. Sources: Refinitiv Lipper, ESMA.

**A.162 Retail fund synthetic risk and reward indicator**

- **Equity**
- **Bond**
- **Mixed**
- **Alternative**
- **Money Market**

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 volatility). Sources: Refinitiv Lipper, ESMA.

**A.164 Net returns by asset class**

- **16**

Note: EU-27 UCITS evolution of gross annual performance, retail investors, by asset class, %. Equity on the right hand side. Sources: Refinitiv Lipper, ESMA.

**A.166 Dispersion by absolute cost impact**

- **EU-27 average**
- **EU Member States**

Note: EU-27 UCITS dispersion of total costs (ongoing costs, subscription and redemption fees) of UCITS funds, computed as the difference between gross and net returns, by country, retail investors, %. Sources: Refinitiv Lipper, ESMA.
A.167
Equity UCITS total costs by management type

Note: EU equity UCITS, evolution of total costs, ongoing costs (TER), subscription and redemption fees by management type, %. Sources: Refinitiv Lipper, ESMA.

A.168
Equity UCITS net returns by management type

Note: EU equity UCITS evolution of net annual performance, net of ongoing costs (TER), subscription and redemption fees by management type, %. Sources: Refinitiv Lipper, ESMA.
Complaints

A.169
Total complaints

Note: Number of complaints recorded by quarterly-reporting NCAs (n=17) 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 2Q17 to 2Q19. Sources: ESMA complaints database

A.170
Complaints data by type of firm

Note: Share of complaints for quarterly-reporting NCAs (n=17) received direct from consumers and via firms by type of firm involved, excluding complaints with no firm type recorded. % "Total with firm type reported"=Number of complaints via these reporting channels excluding those with no firm type recorded. "MiFID I"=MiFID investment firm. "UCITS Manco"=UCITS management company. "Art3-exempt firm"=Firm exempt under Article 3 of MiFID. Sources: ESMA complaints database

A.171
Complaints by cause

Note: Share of complaints for quarterly-reporting NCAs (n=17) 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 those reporting channels including those with none of the listed causes recorded. Sources: ESMA complaints database

A.172
Complaints data by instrument

Note: Share of complaints for quarterly-reporting NCAs (n=17) received direct from consumer and via firms by type of financial instrument, where none of the instruments listed was reported. "Total with instrument cited"=Number of complaints via those reporting channels including those with no instrument type reported or reported as "other" or "N/A." Total complaints="number of complaints via those reporting channel whether or not further categorisation possible. "CFDs"=Contracts for Differences. Sources: ESMA complaints database

A.173
Complaints by MiFID II category

Note: Share of complaints for quarterly-reporting NCAs (n=17) 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
Market based finance

Capital markets financing

A.174 Total market financing

Note: Liabilities of EU 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 NFCs; other accounts receivable/payable. Md. financing (rhs) = annual growth rate in debt securities, equity and investment fund (IP) shares. in %.
Sources ECB, ESMA.

A.176 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.

A.175 Equity issuance by deal type

Note: Equity gross issuance in the EEA30 by type, EUR bn, and number of equity offerings. SY-MA-five-year moving average of the total value of equity offerings.
Sources Refinitiv EIKON, ESMA.

A.177 Corporate bond issuance and outstanding

Note: Quarterly investment-grade (rating ≥ BB+) and high-yield (rating < BB+) corporate bond gross issuance in the EEA30 (rhs), EUR bn, and outstanding amounts, EUR bn.
Sources Refinitiv EIKON, ESMA.

A.178 Corporate bond issuance by sector

Note: Quarterly 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.).
Sources Refinitiv EIKON, ESMA.

A.179 Securitised products issuance and outstanding

Note: Retained and placed securitised products gross issuance in Europe, EUR bn, and outstanding amounts (rhs), EUR bn. Data includes ABS, CDO, NMS, SME, WBS.
Sources AFME ESMA.
MMFs and other financial institutions

A.180

Non-bank wholesale funding

A.181

SMEs

A.182

SME trading volumes

A.183

Share of SME trading volumes on Growth Markets

A.184

Number of SME issuers by market type

A.185

Secondary market liquidity of SME shares

Note: Monthly trading volumes of SME shares in 2019, EUR billion, and % share in total equity trading. *Small* = < 0.2 mn; *Medium* = 0.2 mn – 20 mn; *Large* = > 20 mn. Sources: FIRDGS, TRS, ESMA.

Note: Number of SMEs that have issued shares publicly available for trading in the EU by market type. Shares may be available for trading on more than one market type. SME categories based on market capitalisation. Small cap = less than EUR 20 mn; Medium cap = from EUR 20 mn to 200 mn. Sources: FIRDGS, TRS, ESMA.

Note: Share of SME equity instruments traded at least once per month by market capitalisation in %. Sources: FIRDGS, TRS, ESMA.
**Market-based credit intermediation**

**A.186**

Sovereign repo market specialness

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 seven EUR repo markets (AT, BE, DE, FR, IT and NL).

Sources: RepoFundsRate, ESMA.

**A.187**

US shadow banking liabilities

Note: Size of the US shadow banking system proxied by liabilities of ABS issuers, government-sponsored enterprises (GSE) and pool securities, opar commercial paper (CP), size of the US repo and securities lending (collateralised with cash) markets, and liabilities of MMFs in USD tr. Expressed in % of bank liabilities on lhs.

Sources: Refinitiv Datastream, ESMA.

**A.188**

MMFs and other financial institutions

Note: Total assets for EA MMFs and other financial institutions (OFI): investment funds (IF), financial vehicle corporations (PVC). Other OFI calculated with ECB Quarterly Sector Accounts. in EUR tr. Expressed in % of total assets on rhs.

Sources: ECB, ESMA.

**A.189**

Financial market interconnectedness

Note: EA loan and debt securities via-via MFIs 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.

**A.190**

Credit terms in SFT and OTC derivatives

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.191**

Securities financing conditions

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.
A.192
Sovereign repo market turnover

Note: Repo transaction volumes executed through CCPs in seven sovereign EUR repo markets (AT, BE, DE, FI, FR, IT and NL), EUR bn. Sources: RepoFunds Rate, ESMA.

A.193
Covered bond issuance and outstanding

Note: Covered bond gross issuance in the EEA30, EUR bn, and outstanding amounts (in), EUR bn. Sources: Refinitiv Eikon, ESMA.
Sustainable finance

Green finance

A.194 Green bonds outstanding

A.195 Green bond issuance

A.196 Green bonds outstanding from private sector

A.197 Green bond credit quality

A.198 Green bond maturity buckets

A.199 Maturity distribution of green and conventional bonds

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: Outstanding amount of green bonds in the EEA30 by credit rating and sector, EUR bn.
Sources: Refinitiv EIKON, ESMA.

Note: Distribution of green bonds and corporate bonds outstanding in the EU by maturity bucket, in %.
Sources: Climate Bonds Initiative, Refinitiv EIKON, ESMA.
A.201 Green bond currencies

- Euro
- EEA ex. Euro
- British Pound
- US Dollar
- Rest of the world

Note: Outstanding amount of green bonds in the EEA30 by currency, EUR bn. Sources: Refinitiv EIKON, ESMA.

A.204 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.

Emissions trading

A.205 Emission allowance turnover

Note: Monthly turnover of European Emission Allowances (EUA) on European Energy Exchange, in EUR mn. Sources: Refinitiv Datastream, ESMA.
Financial innovation

A.206 Funds with AI/FinTech investment focus

Note: Total AuM, EUR bn, and monthly net flows, EUR mn, for selected EU-domiciled funds (n=32) whose name includes reference to AI, automation, FinTech or robotics.
Sources: Morningstar Direct, ESMA

A.207 Cloud services

Note: Percentage of businesses purchasing cloud computing services by ye in 27 EU countries, %, Countries included: AT, BE, CZ, DE, DK, EE, ES, FI, FR, GR, HU, IE, IT, LV, LT, LU, NL, PL, PT, SI, SK, SE. Firms across t economy with at least 10 employees were surveyed.
Sources: OECD, ESMA

A.208 Type of impact of IT incidents on trade repositories

Note: ESMA analysis of impact type of IT incidents reported for trade repositories in the EU, 2018-19
Sources: ESMA

A.209 Crypto-Asset market capitalisation

Note: Market capitalisation of Bitcoin, Ethereum and other crypto-currencies, in EUR bn.

A.210 Crypto-Asset prices

Note: Prices of selected crypto-assets, EUR thousand.

A.211 Crypto-Asset price volatility

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.212
Bitcoin futures markets

A.213
Root cause of IT incidents on trade repositories

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

Note: ESMA analysis of root cause of IT incidents reported for trade repositories in the EU 2018-19. None of the incidents were classified in the remaining category of IT security. "Perf." = performance.

Sources: ESMA