European Securities and Markets Authority

ESMA Risk Dashboard

No. 1, 2018

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ESMA Risk Dashboard

R.1
Main risks

Risk segments	Risk	Outlook	Risk categories	Risk	Outlook	Risk sources	Outlook
Overall ESMA remit		→	Liquidity		→	Macroeconomic environment	↘
Systemic stress		→	Market		→	Low interest rate environment	→
Securities markets		→	Contagion		→	EU sovereign debt markets	→
Investors		→	Credit		→	Infrastructure disruptions, incl. cyber risks	↗
Infrastructures and services		→	Operational		↗	Political and event risks	↗

Note: Assessment of main risks by risk segments for markets under ESMA remit since last assessment, and outlook for forthcoming quarter. Assessment of main risks by risk categories and sources for markets under ESMA remit since last assessment, and outlook for forthcoming quarter. Risk assessment based on categorisation of the ESA Joint Committee. Colours indicate current risk intensity. Coding: green=potential risk, yellow=elevated risk, orange=high risk, red=very high risk. Upward arrows indicate an increase in risk intensities, downward arrows a decrease, horizontal arrows no change. Change is measured with respect to the previous quarter; the outlook refers to the forthcoming quarter. ESMA risk assessment based on quantitative indicators and analyst judgement.

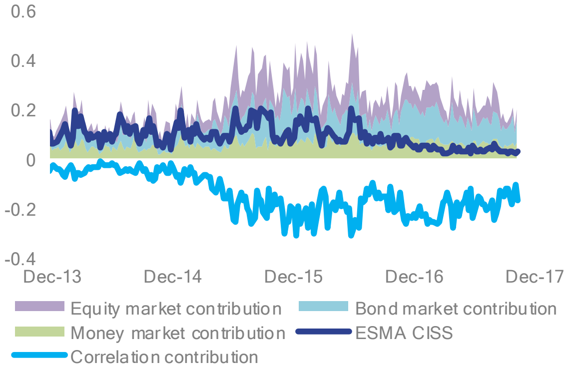
ESMA's 4Q17 overall risk assessment is unchanged from 3Q17. EU financial markets remained calm during the quarter, with limited reactivity to global geopolitical events. While benign market conditions prevailed during the reporting period, February 2018 saw severe market corrections and the return of equity market volatility, confirming our prevailing valuation concerns. ESMA's market risk assessment remains very high. However, our assessment for credit risk has improved from very high to high. The outlook for market, liquidity and contagion risks is stable. Operational risk continues to be elevated, with a deteriorating outlook, due to Brexit-related risk to business operations and the mounting risk of cyber-attacks. The main sources of risk remain a potential repricing of risk premia and geopolitical developments whose effects may spill over to global financial markets. On the perimeter of global securities markets, the latter months saw extreme volatility in the prices of virtual currencies and strong growth in Initial Coin Offerings.

Risk summary

Risks in the markets under ESMA's remit remained at high levels, reflecting very high risk in securities markets and elevated risk for investors, infrastructures and services. ESMA's market risk assessment was again very high. While benign market conditions prevailed during the reporting period, the beginning of February 2018 saw severe market corrections and the return of equity market volatility, confirming our prevailing valuation concerns. On the other hand, the level of credit risk eased from very high to high, reflecting a strengthening macroeconomic environment and higher credit ratings in several EU member states, although the deterioration in outstanding corporate ratings persisted. Liquidity risk in 4Q17 remained high despite improvements in securities markets. Operational risk was elevated, but with a deteriorating risk outlook as concerns mount over potential cyber-attacks. The risk outlook was stable across the other risk categories. On the perimeter of global securities markets, the latter months saw an extraordinary rise and subsequent fall in prices of virtual currencies, as well as growing issuance of Initial Coin Offerings (ICOs). ESMA has warned against the substantial risks associated with investments in virtual currencies and ICOs.

Systemic stress remained at very low levels in 4Q17, based on the composite systemic stress indicator (R.2). Within securities markets, bond markets again registered the highest contribution to the systemic stress measure.

R.2
ESMA composite systemic stress indicator
Systemic risk broadly stable



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.

Risk sources

Macroeconomic environment: The EU's economic recovery continued in 4Q17. Household spending remains an important driver of the ongoing expansion, while fixed capital investment is gaining momentum. Business survey data point to the strongest economic activity in several years and are still trending up. Economic sentiment in the EU reached its highest level since 2000, supported by a broad-based increase in business and consumer confidence. According to the European Commission's Autumn forecast, the EU economy performed significantly better than expected in 2017, in line with stronger growth around the world. EU GDP is now expected to have grown by 2.3% in 2017 and to gradually slow over the next two years to 2.1% in 2018 and 1.9% in 2019. Downside risks to the growth outlook remain – linked to global geopolitical events, a potential slowdown in China, stronger appreciation of the euro, and risks related to the outcome of the Brexit negotiations.

Low interest-rate environment: In 4Q17, ECB monetary policy remained highly accommodative to ensure supportive financing conditions, while BoE rates remained low despite an increase in November. EA government bond yields declined slightly in the reporting period, while corporate bond spreads tightened again. The low-yield environment thus persists, reinforcing risks related to search-for-yield strategies. The high-yield fund segment experienced some volatility in 4Q17, with a sharp decline in US high-yield corporate bonds and net redemptions from EU-domiciled funds of EUR 8bn. Another source of concern stems from funds investing in emerging market bonds, which registered net cumulative inflows of EUR 71bn (R.25) and may be particularly vulnerable to a sudden reversal in global risk premia due to the lower liquidity of their investment portfolio. Excessive risk-taking and potential capital misallocation thus remain relevant risk sources in the medium-term. In the context of a persistently low interest yield environment, abruptly increasing yields could lead to losses for investment positions and generate volatility spikes in asset prices.

EU sovereign debt markets: Ten-year EU sovereign risk premia generally edged down in 4Q17 amid low interest rates and supportive monetary policy. Sovereign yields seem to have somewhat bottomed out for now following an increase at the beginning of 2017, reflecting the gradual improvement in the macroeconomic context. In the medium to long-term, rising yields could represent a source of risk in countries with high levels of public and private debt. Sovereign bond market liquidity remained ample in 4Q17, although it decreased slightly towards the end of the year (R.11).

Market functioning: No significant disruptions to the functioning of EU markets were observed in 4Q17. During this period, the number of circuit breaker occurrences remained low with a weekly average of 38, compared to 121 in 1H17 (R.39). The number of ongoing trading suspensions increased, but these were concentrated mainly in one EU Member State. Central clearing continued to increase as implementation of the clearing obligation for derivatives continues. In August, the second delegated regulation requiring mandatory clearing of certain index CDS took effect for financial counterparties and AIFs above the EUR 8bn threshold of gross amounts outstanding. On 18 September, the final migration wave to T2S was completed, with four additional markets connecting to it: Estonia, Latvia, Lithuania and Spain. T2S contributes to the integration of post-trade processes across participating markets. The total value of settled transactions in the EU has increased since the beginning of migration to T2S in June-August 2015. In 4Q17, the share of settlement fails increased for corporate bonds, while declining for equities (R.42). Cyber risk is increasingly becoming a concern for financial market institutions, especially with respect to their business continuity and the integrity of proprietary data, as illustrated by recent global ransomware attacks.

Political and event risk: In the EU, Brexit is among the most important political risks. The ongoing negotiations between the EU27 and the UK on the withdrawal terms represent a high source of uncertainty for financial markets, despite the absence of any visible reaction in EU markets – foreign exchange markets aside. News flow and announcements may further intensify political and event risk, increase uncertainty and lead to greater asset price volatility in EU markets. In particular, a scenario in which negotiations remain inconclusive or end in a disorderly fashion could result in negative cliff effects in financial markets. ESMA is calling on market participants to thoroughly review any potential exposure to Brexit cliff effect risks and address these as part of their risk management.

Risk categories

Market risk – very high, outlook stable: In 4Q17 financial markets exhibited limited reaction to geopolitical risks. Short-term expectations of equity price volatility ticked up from 11% to 13%, partly reflecting renewed concerns over political developments in the EU; historically, however, they remained at low levels overall (R.7). In contrast, exchange rate volatilities continued to decline (R.8). EU financial equity prices were mixed, with banks underperforming other sectors (-2.4%), while insurance companies and other financials gained 1.2%. In the medium to long term, sources of concern stem from political uncertainty in the Brexit negotiations and from valuation risk. Elevated prices in the context of a low yield environment could be exposed to severe reversals due to swift repricing of risk premia, should a phasing out of expansionary monetary policy materialise.

Liquidity risk – high, outlook stable: Liquidity in equity markets remained stable in 4Q17, with the ESMA composite equity illiquidity indicator oscillating close to its long-term average (R.4). Liquidity in sovereign bond markets deteriorated slightly towards the end of the year, reflected mainly in higher bid-ask spreads (R.10, R.11). In contrast, bid-ask spreads on corporate bonds continued to narrow in 4Q17 to levels below their long-term average (R.16). The trading volume of centrally cleared repos continued to grow strongly (R.13) while collateral scarcity premia (i.e. the difference between general collateral and special collateral repo rates), increased again in late 2017 (R.14) reflecting possible shortages of high-quality collateral. This may increase liquidity risk and volatility in funding costs and reduce overall market confidence.

Contagion risk – high, stable outlook: In sovereign bond markets, the median correlation between Germany and other EU countries' bond yields decreased temporarily at the beginning of 4Q17 but remained generally high. Dispersion levels gradually fell, with most countries now registering positive correlation with German bonds (R.19). In the medium to long term, contagion risks may derive from swift repricing in bond markets leading to high bond fund redemptions and triggering fire sales of illiquid assets. Intra-sectoral fund interconnectedness increased in 4Q17 for both hedge funds and MMFs (R.29 and R.31). MMFs' higher interconnectedness potentially reflects the build-up of risk buffers against the ongoing trend of asset price inflation (R.32).

Credit risk – high, outlook stable: In 4Q17 non-financial corporate bond spreads remained very low across rating categories in the range of 68 bps for BBB-rated securities to 7 bps for the AAA class (R.15). Covered bond spreads recorded similar developments. The gradual introduction of mandatory clearing for certain derivative asset classes should also help reduce counterparty credit risk. On the other hand, the credit quality of corporate bonds continued to deteriorate, though at a slower pace compared to 1H17 (R.17), and substantial inflows for bond funds investing in emerging markets revealed the persistence of search for yield strategies (R.25). Overall, our credit risk assessment improves from very high to high, reflecting the increasingly robust macroeconomic environment, improvements in EA sovereign and corporate creditworthiness and low credit spreads. A potential future revision of the monetary policy stance may adversely impact our credit risk assessment, given the high-level of indebtedness in several EU countries.

Operational risk – elevated, outlook deteriorating: Conduct and systems risks remained a key concern both within and outside the EU. On conduct risk, the number of complaints regarding financial instruments reported directly to NCAs in our sample saw an uptick in 3Q17 to around 1,500, following a steady downward trend from 2Q16 onwards. One driver of this trend was the continuing reduction in complaints regarding contracts for difference and options, futures and swaps, following actions taken by NCAs in relation to some firms providing these products. Complaints relating to bonds and other debt securities exhibited the greatest increase in 3Q17, although more than a quarter of the complaints still related to equity instruments (R.37). The dispersion of Euribor submission quotes increased anew in late 4Q17 (R.45), possibly reflecting year-end money market volatility. As regards systems risk, in 4Q17 no major trading disruptions were observed on EU trading venues, with trading volumes at around a third of the two-year peak observed following the UK referendum (R.40). In post-trading activities, corporate bond settlement fails rose from 2% to 3% in 4Q17 (R.42). Regarding cyber risks, concerns are expected to intensify in the medium to long term; as a result, the risk outlook for operational risk is deteriorating. In 1H17 there were 107 instances of data breaches in the financial services sector, mostly related to identity thefts (R.47).

Securities markets

R.3

Risk summary

Risk level

Risk change from 3Q17

Outlook for 1Q18

Risk drivers

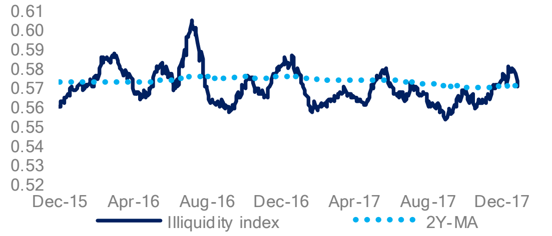
- Asset re-valuation and risk re-assessment
- Low interest rate environment and excessive risk taking
- Geopolitical and event risks
- Potential scarcity of collateral

Note: Assessment of main risk categories for markets under ESMA remit since past quarter, and outlook for forthcoming quarter. Systemic risk assessment based on categorisation of the ESA Joint Committee. Colours indicate current risk intensity. Coding: green=potential risk, yellow=elevated risk, orange=high risk, red=very high risk. Upward arrows indicate a risk increase, downward arrows a risk decrease. ESMA risk assessment based on quantitative indicators and analyst judgement.

R.4

ESMA composite liquidity index

Lower equity liquidity in 4Q17

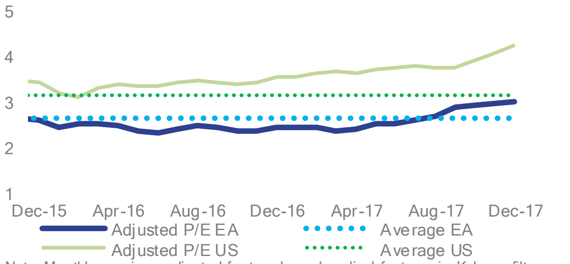


Note: Composite indicator of illiquidity in the equity market for the current Eurostoxx 200 constituents, computed by applying the principal component methodology to six input liquidity measures (Amihud illiquidity coefficient, bid-ask spread, Hui-Heubel ratio, turnover value, inverse turnover ratio,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

R.5

Equity valuation

Increasing in EA and US

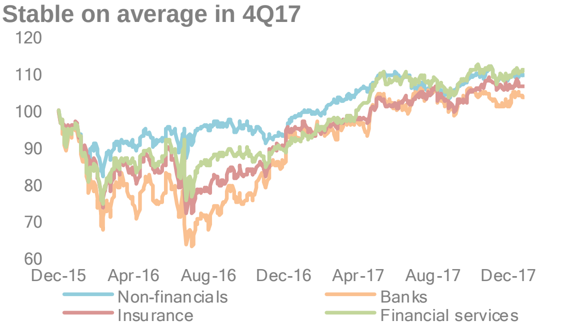


Note: Monthly earnings adjusted for trends and cyclical factors via Kalman filter methodology based on OECD leading indicators; units of standard deviation; averages computed from 8Y.
Sources: Thomson Reuters Datastream, ESMA.

R.6

Equity prices

Stable on average in 4Q17

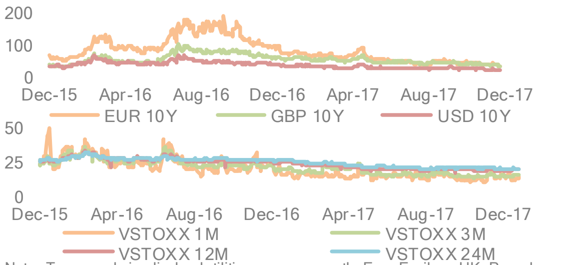


Note: STOXX Europe 600 equity total return indices. 01/12/2015=100.
Sources: Thomson Reuters Datastream, ESMA.

R.7

Financial instrument volatilities

Low and stable

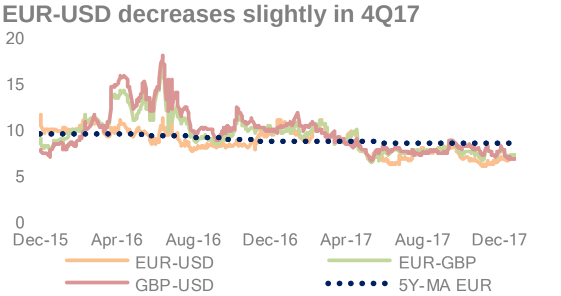


Note: Top panel: implied volatilities on one-month Euro-Euribor, UK Pound Sterling-GBP Libor and US Dollar-USD Libor swaptions measured as price indices, in %; bottom panel: Euro Stoxx 50 implied volatilities, measured as price indices, in %.
Sources: Thomson Reuters EIKON, Thomson Reuters Datastream, ESMA.

R.8

Exchange rate volatilities

EUR-USD decreases slightly in 4Q17

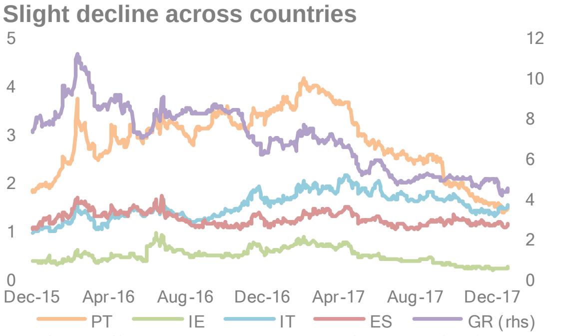


Note: Implied volatilities for 3M options on exchange rates. 5Y-MA EUR is the five-year moving average of the implied volatility for 3M options on EUR-USD exchange rate.
Sources: Thomson Reuters EIKON, ESMA.

R.9

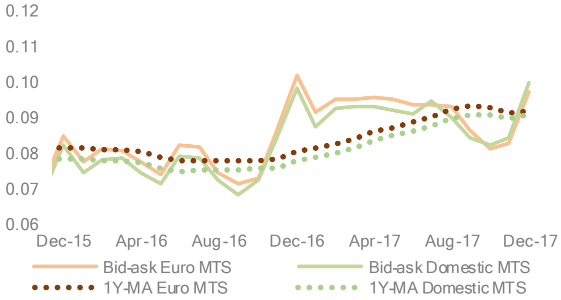
Sovereign risk premia

Slight decline across countries



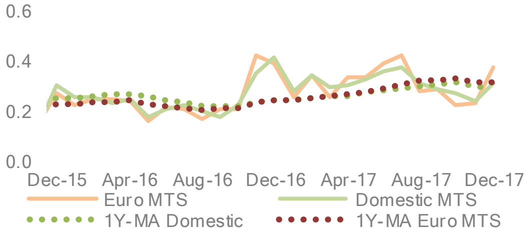
Note: Selected 10Y EA sovereign bond risk premia (vs. DE Bunds), in %.
Sources: Thomson Reuters Datastream, ESMA.

R.10
Sovereign bond bid-ask spreads
Spreads widen at the end of 4Q17



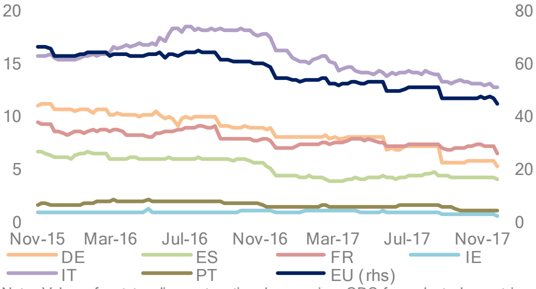
Note: Bid-ask spread calculated as average bid-ask spread throughout a month across ten EU markets, Domestic and Euro MTS, in %.
Sources: MTS, ESMA.

R.11
ESMA composite sovereign bond illiquidity index
Slight deterioration at the end of 4Q17



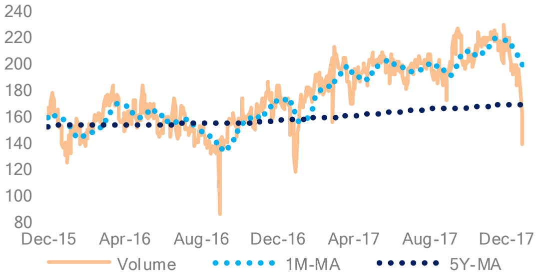
Note: Composite indicator of market liquidity in the sovereign bond market for the domestic and Euro MTS platforms, computed by applying the principal component methodology to four input liquidity measures (Amihud illiquidity coefficient, Bid-ask spread, Roll illiquidity measure and Turnover). The indicator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

R.12
Sovereign CDS volumes
Stable or decreasing



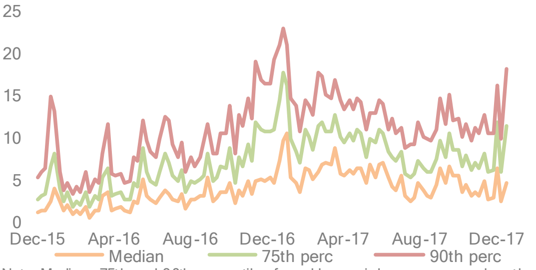
Note: Value of outstanding net notional sovereign CDS for selected countries; USD bn.
Sources: DTCC, ESMA.

R.13
Sovereign repo volumes
Trending up despite seasonal drop at year-end



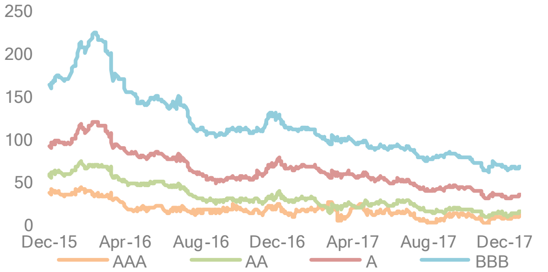
Note: Repo transaction volumes executed through CCPs in seven sovereign EUR repo markets (AT, BE, DE, FI, FR, IT and NL), EUR bn.
Sources: RepoFunds Rate, ESMA.

R.14
Repo market specialness
Premium spike for collateral in high demand



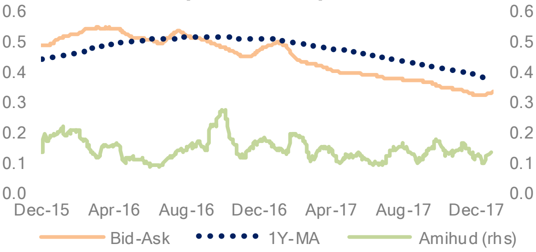
Note: Median, 75th and 90th percentile of weekly specialness, measured as the difference between general collateral and special collateral repo rates on government bonds in selected countries.
Sources: RepoFunds Rate, ESMA.

R.15
Corporate bond spreads
Further decrease in 4Q17



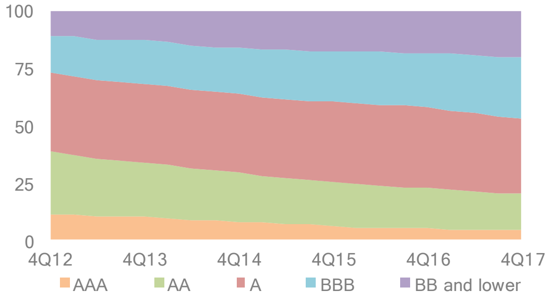
Note: EA non-financial corporate bond spreads by rating between iBoxx non-financial corporate yields and ICAP Euro Euribor swap rates for maturities from 5 to 7 years, in bps.
Sources: Thomson Reuters Datastream, ESMA.

R.16
Corporate bond bid-ask spreads and Amihud indicator
Amihud ticked up, bid-ask spreads narrowed



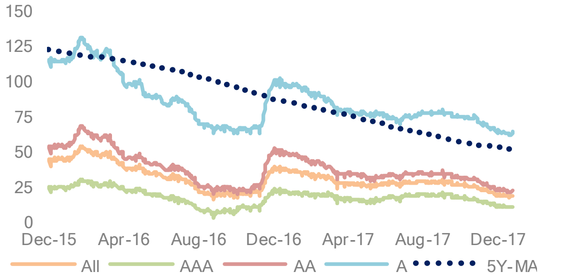
Note: EUR Markit iBoxx corporate bond index bid-ask spread, in %, computed as a one-month moving average of the iBoxx components in the current composition. 1Y-MA=one-year moving average of the bid-ask spread. Amihud liquidity coefficient index between 0 and 1. Higher value indicates less liquidity.
Sources: IHS Markit, ESMA.

R.17
Outstanding long-term corporate debt
Increased share of BBB and lower



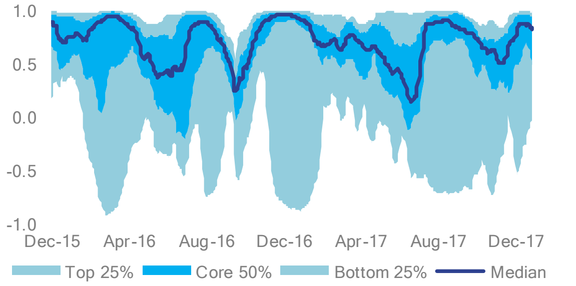
Note: Outstanding amount of corporate bonds in the EU as of issuance date by rating category, in % of the total.
Sources: Thomson Reuters EIKON, ESMA.

R.18
Covered bond spreads
Slight decrease in 4Q17



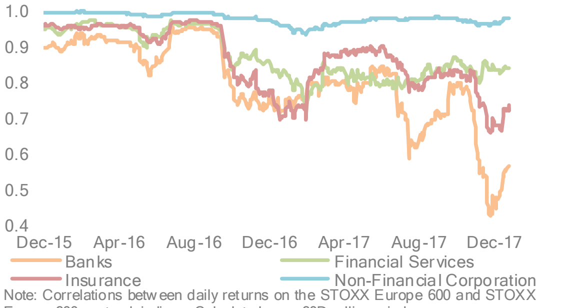
Note: Asset swap spreads based on iBoxx covered bond indices, in bps. 5Y-MA=five-year moving average of all bonds.
Sources: Thomson Reuters Datastream, ESMA.

R.19
Dispersion in sovereign yield correlation
Temporary decline in correlation



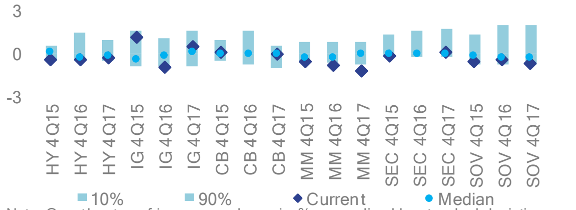
Note: Dispersion of correlations between 10Y DE Bunds and other EU countries' sovereign bond redemption yields over 60-day rolling windows.
Sources: Thomson Reuters Datastream, ESMA.

R.20
Sectoral equity indices correlation
Lower cross-sectoral correlations



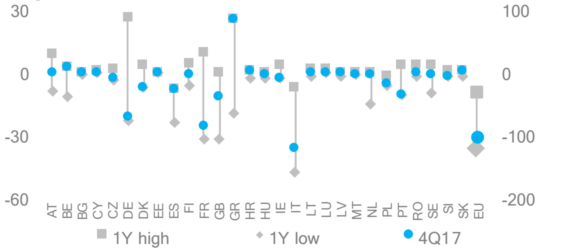
Note: Correlations between daily returns on the STOXX Europe 600 and STOXX Europe 600 sectoral indices. Calculated over 60D rolling windows.
Sources: Thomson Reuters Datastream, ESMA.

R.21
Debt issuance growth
Negative issuance growth, except for IG debt



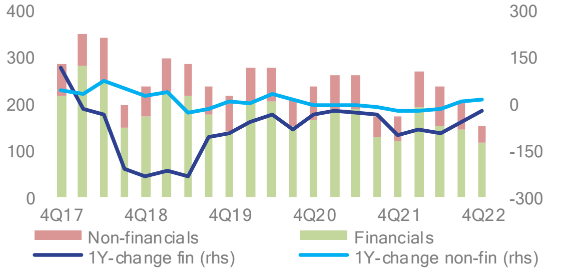
Note: Growth rates of issuance volume, in %, normalised by standard deviation for the following bond classes: high yield (HY); investment grade (IG); covered bonds (CB); money market (MM); securitised (SEC); sovereign (SOV). Percentiles computed from 12Q rolling window. All data include securities with a maturity higher than 18M, except for MM (maturity less than 12M). Bars denote the range of values between the 10th and 90th percentiles. Missing diamond indicates no issuance for previous quarter.
Sources: Thomson Reuters EIKON, ESMA.

R.22
Net sovereign debt issuance
Negative net issuance in the EU



Note: Quarterly net issuance of EU 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. EU total on right-hand scale.
Sources: Thomson Reuters EIKON, ESMA.

R.23
Debt redemption profile
Lower short-term financing needs for financials



Note: Quarterly redemptions over 5Y-horizon by EU 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.
Sources: Thomson Reuters EIKON, ESMA.

Investors

R.24

Risk summary

Risk level

Risk change from 3Q17

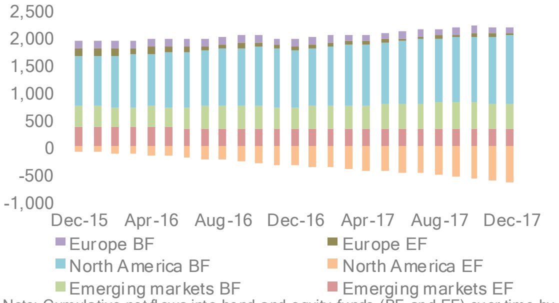
Outlook for 1Q18

Risk drivers

– Sustained search-for-yield
– Asset re-valuation and risk re-assessment
– Correlation in asset prices
– Continued inflows into riskier EU investment funds

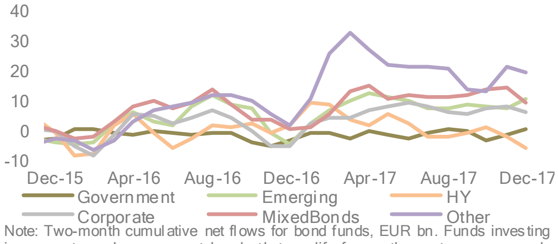
Note: Assessment of main risk categories for markets under ESMA remit since past quarter, and outlook for forthcoming quarter. Systemic risk assessment based on categorisation of the ESA Joint Committee. Colours indicate current risk intensity. Coding: green=potential risk, yellow=elevated risk, orange=high risk, red=very high risk. Upward arrows indicate a risk increase, downward arrows a risk decrease. ESMA risk assessment based on quantitative indicators and analyst judgement.

R.25
Cumulative global investment fund
Strong inflows except for US equity funds



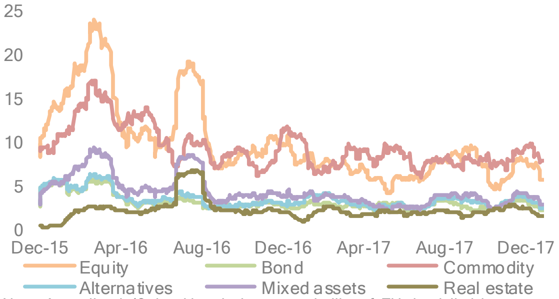
Note: Cumulative net flows into bond and equity funds (BF and EF) over time by regional investment focus, EUR bn.
Sources: Thomson Reuters Lipper, ESMA.

R.26
EU bond fund net flows
High inflows into other bond funds



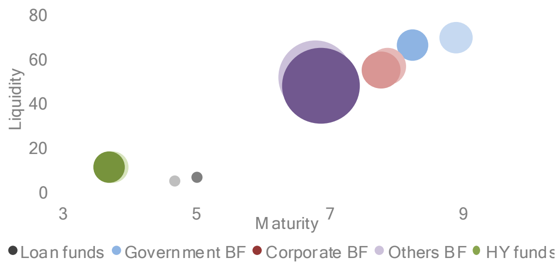
Note: Two-month cumulative net flows for bond funds, EUR bn. Funds investing in corporate and government bonds that qualify for another category are only reported once (e.g. funds investing in emerging government bonds reported as emerging; funds investing in high-yield corporate bonds reported as HY). Other comprises the remaining funds, e.g. absolute return, hedged, short term or inflation-protected funds.
Sources: Thomson Reuters Lipper, ESMA.

R.27
RoR volatilities by fund type
Stable across asset classes



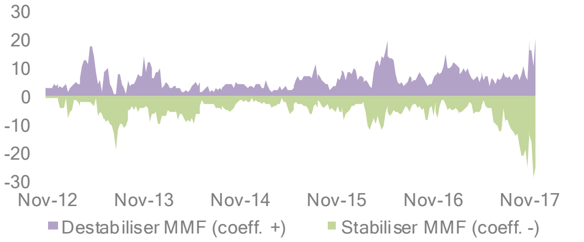
Note: Annualised 40-day historical return volatility of EU-domiciled investment funds, in %.
Sources: Thomson Reuters Lipper, ESMA

R.28
Liquidity risk profile of EU bond funds
Stable liquidity and mixed maturity changes



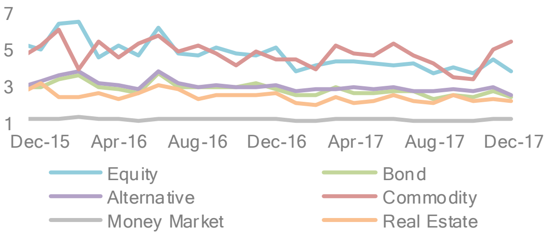
Note: Fund type is reported according to their average liquidity ratio, as a percentage (Y-axis), the effective average maturity of their assets (X-axis) and their size. Each series is reported for 2 years, i.e. 2016 (bright colours) and 2017 (dark colours).
Sources: Thomson Reuters Lipper, ESMA.

R.29
Money market fund interconnectedness
Increasing interconnectedness end-2017



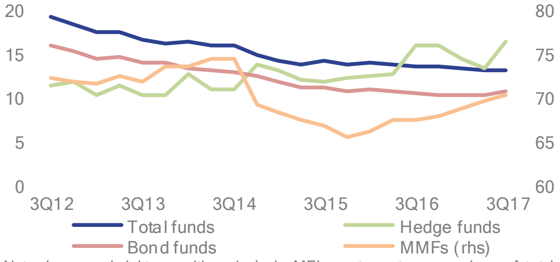
Note: Systemic stress indicator based on products of fractions of regressions with positive (negative) estimated coefficients for individual fund returns' impact on the mean sector return and respective estimators. Coefficients stem from VEC models regressing individual fund returns and moments of the entire industry's return distribution on lags and general financial market indices. Measures aggregated across individual regressions.
Sources: Thomson Reuters Lipper, Thomson Reuters Datastream, ECB, ESMA.

R.30
Retail fund synthetic risk and reward indicator
Higher for commodity funds



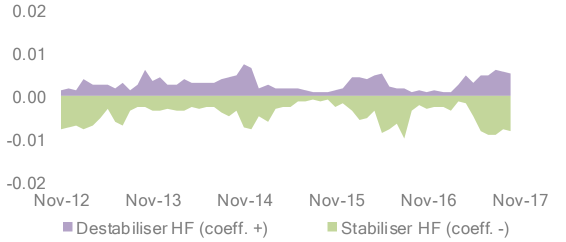
Note: The calculated Synthetic Risk and Reward Indicator is based on ESMA SRRI guidelines. It is computed via a simple 5 year annualised volatility measure which is then translated into categories 1-7 (with 7 representing higher levels of volatility).
Sources: Thomson Reuters Lipper, ESMA.

R.31
Financial market interconnectedness
Increasing for MMFs and HFs



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

R.32
Hedge fund interconnectedness
Interconnectedness increased in 4Q17



Note: Systemic stress indicator based on products of fractions of regressions with positive (negative) estimated coefficients for individual fund returns' impact on average return of sector significant at 99% level and respective average estimators. Coefficients stem from VAR models regressing individual fund returns on lags and general financial market indices. Measures aggregated across individual regressions.
Sources: Barclayhedge, Eurekahedge, TASS, HFR, ESMA.

Infrastructures and services

R.33

Risk summary

Risk level

Risk change from 3Q17

Outlook for 1Q18

Risk drivers

– Operational risks, incl. cyber risks

– Conduct risk, incl. intentional or accidental behaviour by individuals, market abuse

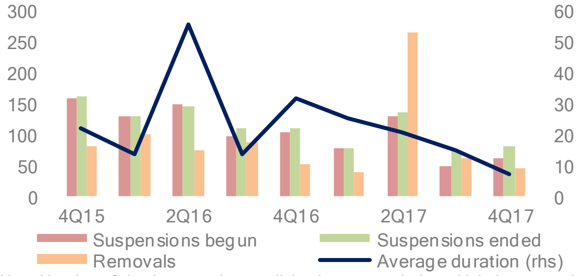
– Systemic relevance, interconnectedness between infrastructures or financial activities, system substitutability

Note: Assessment of main risk categories for markets under ESMA remit since past quarter, and outlook for forthcoming quarter. Systemic risk assessment based on categorisation of the ESA Joint Committee. Colours indicate current risk intensity. Coding: green=potential risk, yellow=elevated risk, orange=high risk, red=very high risk. Upward arrows indicate a risk increase, downward arrows a risk decrease. ESMA risk assessment based on quantitative indicators and analyst judgement.

R.34

Trading suspensions – lifecycle and removals

Low number of removals

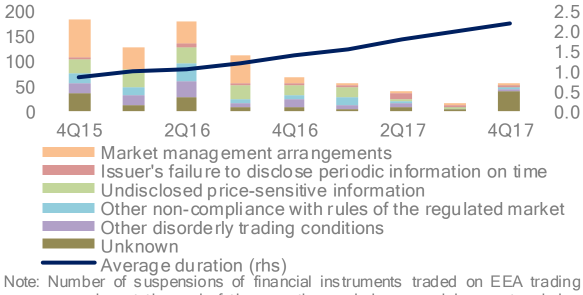


Note: Number of dead suspensions, split by the quarter during which they started and ended, and removals of financial instruments traded in EEA trading venues. Average duration of dead suspensions, in days, computed as the mean of the difference between the end-of-quarter date and the issuance date.
Sources: ESMA Registers.

R.35

On-going trading suspensions by rationale

Increased number of on-going suspensions in 4Q17

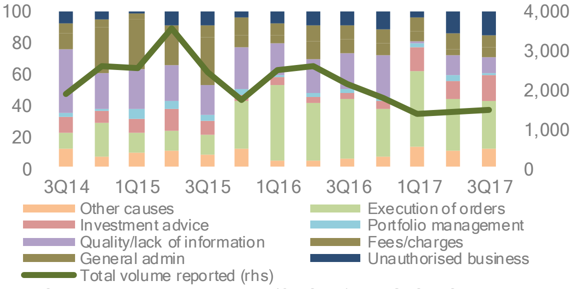


Note: Number of suspensions of financial instruments traded on EEA trading venues ongoing at the end of the reporting period, grouped by quarter during which they started and by rationale. Average duration, in years, computed as the mean of the difference between the end-of-quarter date and the start date.
Sources: ESMA Registers.

R.36

Complaints indicator by rationale

Execution of orders is main cause for complaint

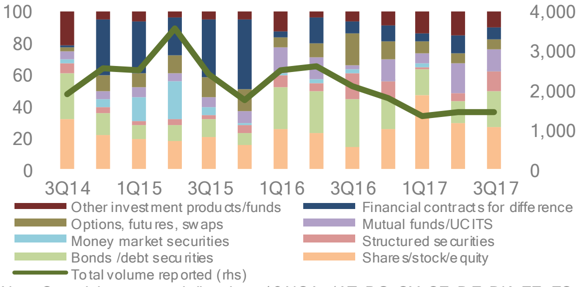


Note: Complaints reported directly to 18 NCAs (AT, BG, CY, CZ, DE, DK, EE, ES, FI, HR, HU, IT, LT, LU, MT, PT, RO, SI), in % of total volume by cause. The line shows the total volume of complaints reported (rhs).
Sources: ESMA complaints database.

R.37

Complaints indicator by instrument

Complaints mostly related to equity and bond instruments

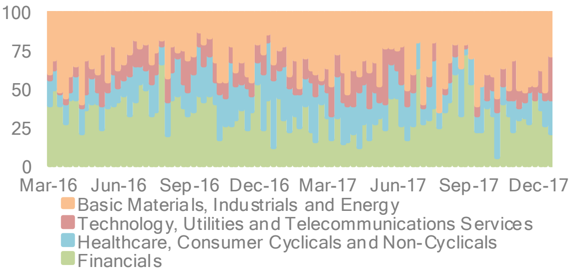


Note: Complaints reported directly to 18 NCAs (AT, BG, CY, CZ, DE, DK, EE, ES, FI, HR, HU, IT, LT, LU, MT, PT, RO, SI), in % of total volume by type of financial instrument. The line shows the total number of complaints reported (rhs).
Source: ESMA complaints database

R.38

Circuit breaker trigger events by sector

Lower share for financials

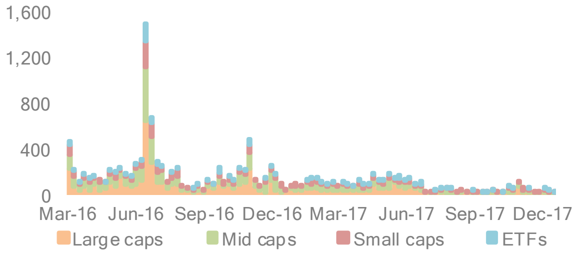


Note: Percentage of circuit breaker trigger events by economic sector. Results displayed as weekly aggregates.The analysis is based on a sample of 10,000 securities, including all constituents of the STOXX Europe 200 Large/Mid/Small caps and a large sample of ETFs tracking the STOXX index or sub-index.
Sources: Morningstar Real-Time Data, ESMA.

R.39

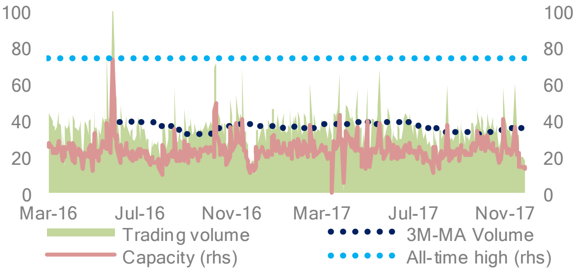
Circuit breaker occurrences by market capitalisation

Limited number of occurrences



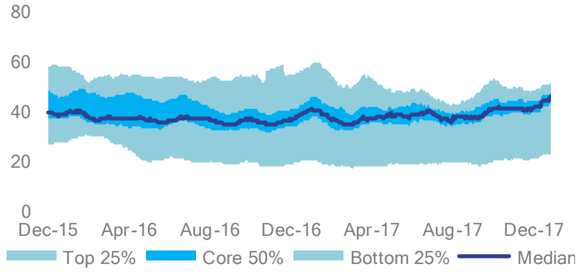
Note: Number of daily circuit breaker trigger events by type of financial instrument and by market cap. Results displayed as weekly aggregates.The analysis is based on a sample of 10,000 securities, including all constituents of the STOXX Europe 200 Large/Mid/Small caps and a large sample of ETFs tracking the STOXX index or sub-index.
Sources: Morningstar Real-Time Data, ESMA.

R.40
Trading system capacity proxy
Volumes increased to 25% of capacity



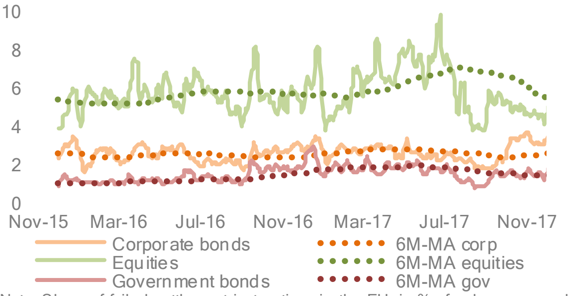
Note:Daily and three-month moving average trading volume registered on 36 EU trading venues, EUR bn. Capacity computed as the average across trading venues of the ratio of daily trading volume over maximum volume observed since 31/03/2016, in % (right axis).
Sources: Morningstar Realtime, ESMA.

R.41
Equity market concentration
Greater concentration



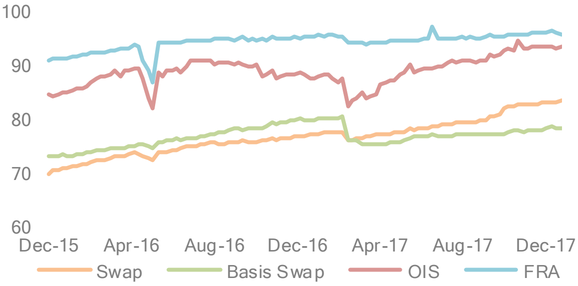
Note: Concentration of notional value of equity trading by national indices computed as a 1M-MA of the Herfindahl-Hirschman Index, in %. Indices included are FTSE 100, CAC 40, DAX, FTSE MIB, IBEX35, AEX, OMXS30, BEL20, OMXC20, OMXH25, PSI20, ATX.
Sources: BATS, ESMA.

R.42
Settlement fails
Increase in corporate bond fails



Note: Share of failed settlement instructions in the EU, in % of value, one-week moving averages. 6M-MA=six-month moving average. Free-of-payment transactions not considered.
Sources: National Competent Authorities, ESMA.

R.43
IRS CCP clearing
OIS and swap central clearing rates higher

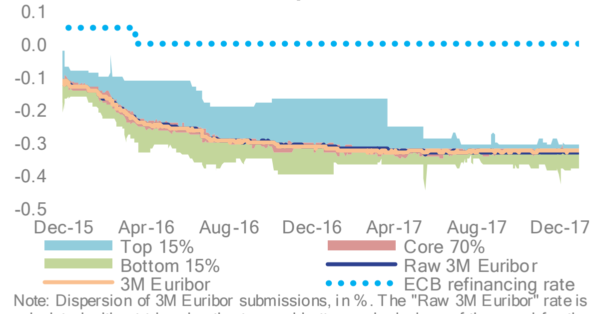


Note: OTC interest rate derivatives cleared by CCPs captured by Dealer vs. CCP positions, in % of total notional amount. Spikes due to short-term movements in non-cleared positions.
Sources: DTCC, ESMA.

R.44
Difference between the Euribor and the maximum contribution
Spike at the end of 4Q17

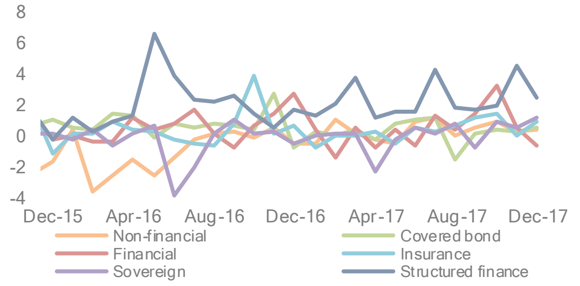
Note: Normalised difference in percentage points between the highest contribution submitted by panel banks and the corresponding Euribor rate. The chart shows the maximum difference across the 8 Euribor tenors.
Sources: European Money Markets Institute, ESMA.

R.45
Euribor – Dispersion of submission levels
Low and stable overall dispersion



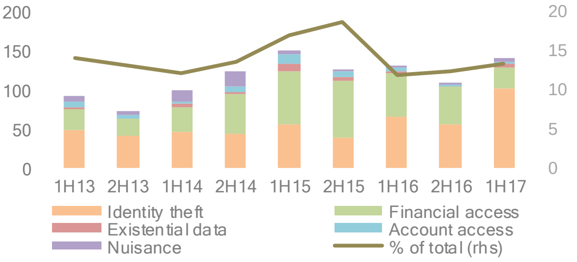
Note: Dispersion of 3M Euribor submissions, in %. The "Raw 3M Euribor" rate is calculated without trimming the top and bottom submissions of the panel for the 3M Euribor.
Sources: European Money Markets Institute, ESMA.

R.46
Rating changes
Positive for structured finance instruments



Note: Net change in ratings from all credit rating agencies, excluding CERVED and ICAP, by asset class computed as a percentage number of upgrades minus percentage number of downgrades over number of outstanding ratings.
Sources: RADAR, ESMA.

R.47
Financial services data breaches
Mostly related to identity thefts



Note: Estimated number of data breaches, financial services only, worldwide, by type. Breaches in financial services sector as % of total data breaches across all sectors (secondary axis). Both series as reported by the Gemalto Breach Level Index. The underlying data were gathered by Gemalto from publicly available reports of information breaches.
Sources: Gemalto Breach Level Index, ESMA.

esma European Securities and Markets Authority