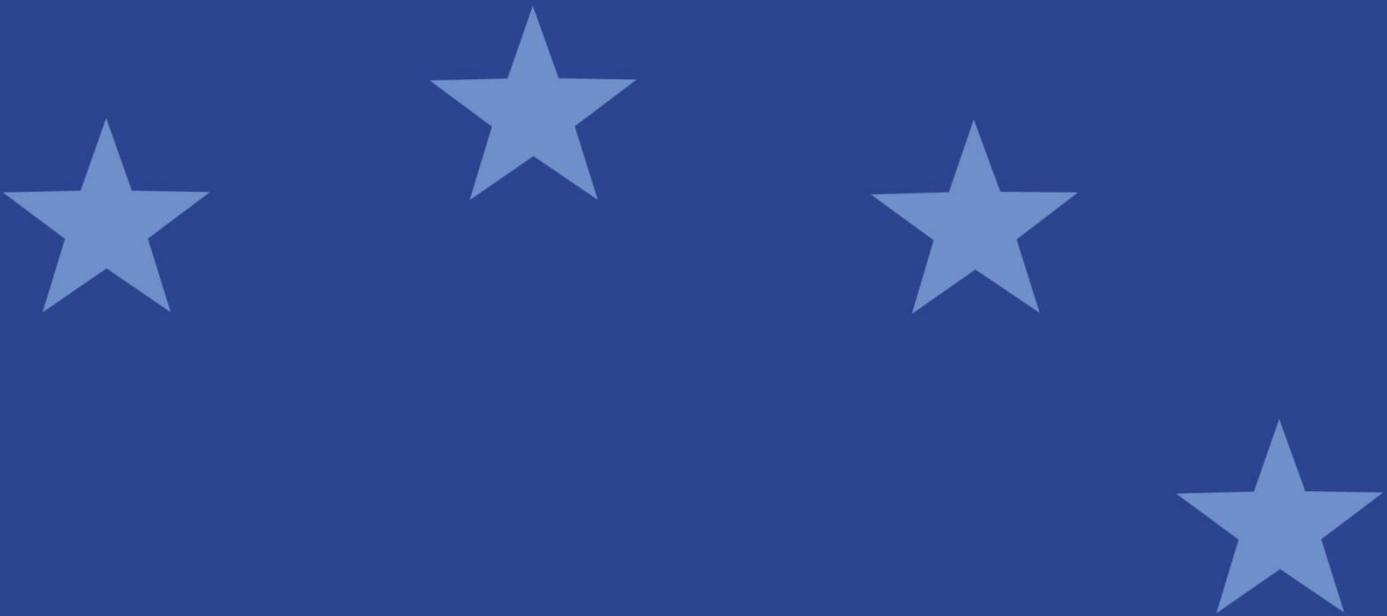




European Securities and
Markets Authority

ESMA Risk Dashboard

No. 4, 2019



28 November 2019
ESMA50-165-1009

ESMA Risk Dashboard
No. 4, 2019

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ESMA Risk Dashboard

R.1

Main risks

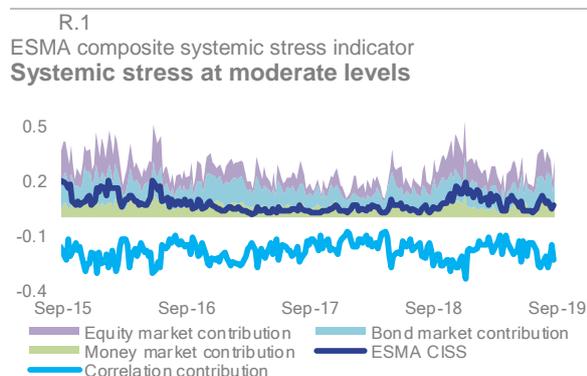
Risk segments	Level Outlook		Risk categories		Risk sources	Outlook
	Level	Outlook	Level	Outlook		
Overall ESMA remit	Orange	→	Liquidity	Orange →	Macroeconomic environment	↗
Systemic stress	Yellow	→	Market	Red →	Interest rate environment	↗
Securities markets	Red	→	Contagion	Orange →	EU sovereign debt markets	→
Infrastructures and services	Yellow	→	Credit	Orange →	Infrastructure disruptions, including cyber risks	→
Asset management	Yellow	↗	Operational	Yellow →	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.

The risk landscape in 3Q19 was dominated by deteriorating economic fundamentals, continued uncertainty around Brexit, US-China trade tensions and geopolitical risk. Markets remain sensitive to related events and news flow. Risks in markets under ESMA's remit remained high, particularly in securities markets, where high asset valuations and search-for-yield prevail. Credit risk continues to be elevated, with deteriorating corporate debt quality and the growing share of BBB-rated debt. Looking ahead, a weakening economic outlook and further uncertainty over global trade negotiations and Brexit remain key risk drivers.

Risk sources

Systemic stress: Systemic stress stayed at moderate levels, with a slight increase in the composite ESMA indicator in September, mainly driven by equities.



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.

Macroeconomic environment: Economic conditions have deteriorated lately in the EU28 and globally. The European Commission expects more subdued growth and muted inflation going forward while IMF forecasts for global growth have been further revised downwards.¹

Interest-rate environment: Markets expect a continuation of the accommodative monetary

policies for the time being. The low-for-long environment bears the risk of translating into search-for-yield behaviour, asset price misvaluation and capital misallocation. High equity valuations (R.4) as well as compressed spreads (R.8-R.14) support this view. In 3Q19, the ECB lowered its deposit rate further into negative territory by 10bps to -0.5% and expects key rates to remain unchanged or to fall in the short-to-medium term. Its asset purchase program will also be restarted in November 2019. In the US, the Federal Reserve also lowered its target federal funds rate to a range of 1.50 to 1.75%.

EU28 sovereign debt markets: Sovereign yields continue to compress along the yield curve and across issuers. As of September, ten EU28 countries had negative ten-year sovereign yields, with DE ten-year benchmark bond yield at -0.57% at the end of 3Q19. The difference in yields between the DE and GR ten-year yield stood at around 200 bps in September, its lowest level since the start of the 2011 EU sovereign crisis. Sovereign bond market liquidity decreased slightly during 3Q19 (R.9-R.10).

Market functioning: Risks from a disorderly UK exit from the EU have reduced significantly with the recent progress on a withdrawal agreement and the renewed extension of the exit deadline to 31 January 2020. A no-deal risk, nevertheless, continues to exist, and ESMA has in the past

¹ European Commission, European Economic Forecast Autumn 2019 and IMF, World Economic Outlook Update, October 2019.

taken important steps to reassure markets and limit operational uncertainties, for example with the recognition decisions for the UK CSD and UK CCPs. Despite the continuing uncertainty surrounding the Brexit outcome, trading conditions in European financial markets have been orderly throughout as shown by the number of circuit breakers that has been stable over the period. The transition from the existing Inter-bank offer-rates (IBORs) to the new risk-free rates raises risks associated with the replacement of the reference rate or the introduction of fallback rates in existing financial products and derivative contracts for both banks and counterparties. The first publication of €STR on 2 October was not followed by any discontinuity in interbank or IRS derivative volumes. While ESMA will keep monitoring developments with respect to €STR and other benchmarks, the transition to the new risk-free rates has gradually started without major disruption.

Political and event risk: Political and event risks remain the main source of risks for EU28 financial markets. Brexit discussions continued in 3Q19 with muted market reactions on securities, investment fund and FX markets to negotiation events. Trade tensions between the US and China have been and are set to remain a major source of volatility and market risk, especially on equity markets where China is now becoming the biggest source of volatility spill-over in the US and in the EU28. Other geopolitical events weighed on markets, for example the attacks on production facilities in Saudi Arabia and the subsequent temporary spike in oil prices. More generally, increased tensions in the Middle-East and potentially higher oil prices over the long run raise concerns over the impact of an oil price increase on global economic activity.

Risk categories

Market risk – very high, outlook stable: EU28 equity markets were characterised by a price fall at the beginning of August in reaction to fears of an intensification of U.S.-China trade war, against the backdrop of a global economic slowdown. Volatility measures, such as the VIX (in the US) and VSTOXX (in the EA), remained slightly above their long-term average, at around 20% in 3Q19. Corporate bond spreads remained tight in a sign of continued search-for-yield, while the share of EA bond market trading with negative yields continued to increase. Oil prices spiked temporarily by almost 20% on 16 September 2019, and USD secured money markets experienced a funding squeeze forcing the Fed to step in, in a sign of simmering market tensions highlighting the scope for abrupt changes in investor sentiment. No spillover to European repo markets was observed with collateral scarcity premiums remaining at low levels (R.13).

Liquidity risk – high, outlook stable: Equity markets were subject to temporary illiquidity spikes related to equity price falls at the beginning of August (R.3). Similarly, illiquidity on sovereign bond markets increased in August (R.10). Corporate bond bid-ask spreads and the Amihud illiquidity indicator increased slightly over most of the quarter only to drop towards the end. (R.16). On the other hand, the scarcity premia on EA government bond collateral remained low compared to end-2018 (R.14) and the average trading volumes in sovereign repos increased (R.13), signalling better conditions for short-term liquidity provision. For funds, search for yield may explain a decline of liquid securities holdings in fund's portfolio over recent years, especially for corporate bond funds.

Contagion risk – high, stable outlook: No spillover to EU28 money markets was observed following the USD secured money markets' a funding squeeze already mentioned in the market risk section. Correlation between sovereign bond yields is now close to 1. This indicates first that most sovereign yields now react to the same market-wide sources of movements, and second that the risk of a country level fiscal shock that could spread to other EU28 countries currently seems less prominent (R.18). Investment fund interconnectedness with more traditional banking activities, in particular for MMFs and hedge funds, remained at a high level (R.39).

Credit risk – high, stable outlook: Credit risk remains high, with continued corporate bond spread compression (spread between BBB and AAA rated bond yields at 66bps). Corporate bond credit quality continued to deteriorate as issuance of new corporate bonds continues to be concentrated in lower-rated segments (R.16). The share of BBB-rated debt at the low end of the investment-grade scale and at risk of being downgraded to non-investment grade continued to be high. This can lead to risks of 'fallen angel' driven shocks, i.e. adverse market impacts following sales of bonds downgraded to non-investment grade.

Operational risk – elevated, stable outlook: Brexit remains a source of concern for operational risk until full clarity about terms and timeline of a Brexit deal and longer term relationship with the UK is achieved. As such, the need for contingency planning and assurance of business continuity both for financial institutions and supervisors remains. Regarding cyber risks, concerns are expected to intensify in the medium to long term, especially with respect to business continuity and the integrity of proprietary data as financial data breaches are increasingly frequent in comparison to breaches in other sectors (R.33).

Securities markets

R.2

Risk summary

Risk level



Risk change from 2Q19



Outlook for 4Q19



Risk drivers

- Political risk
- Geopolitical and event risks, esp. trade tensions
- Asset revaluation and risk re-assessment
- Low-for-long interest rate environment and excessive risk taking
- Deteriorating economic fundamentals and sector outlooks

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 judgment.

R.3

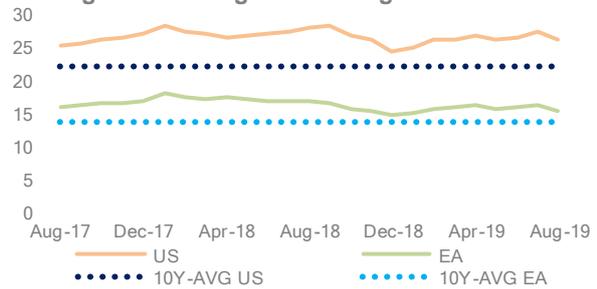
ESMA composite equity illiquidity index Subject to illiquidity spikes



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

R.4

Equity valuation Still higher than long-term average



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

R.5

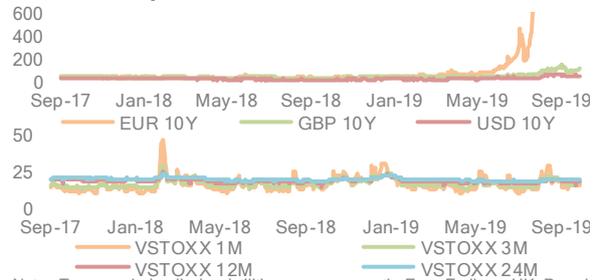
Equity prices Early 3Q19 drop, markets recovered since



Note: STOXX Europe 600 equity total return indices. 01/06/2017=100.
Sources: Refinitiv Datastream, ESMA.

R.6

Financial instrument volatilities Volatilities spike around trade announcements



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: Refinitiv EIKON, Refinitiv Datastream, ESMA.

R.7

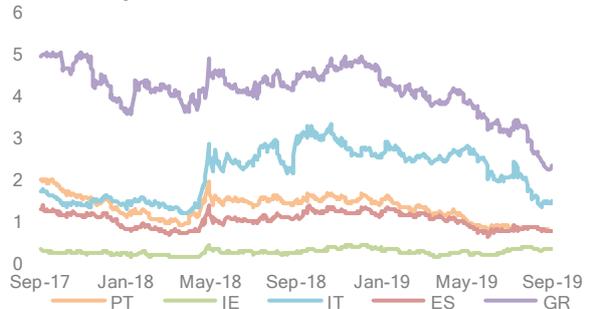
Exchange rate volatilities GBP volatility back to high levels



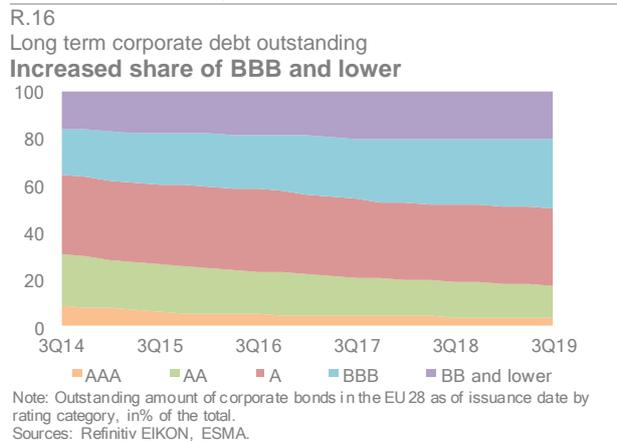
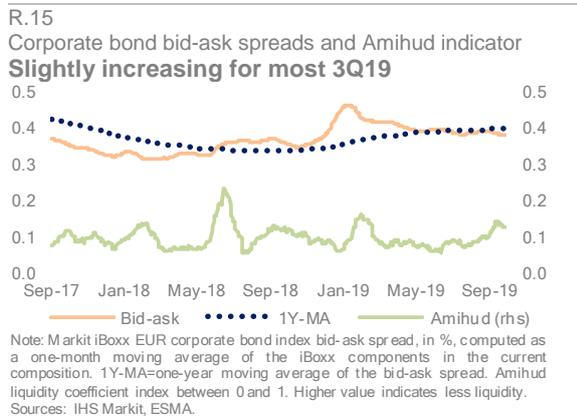
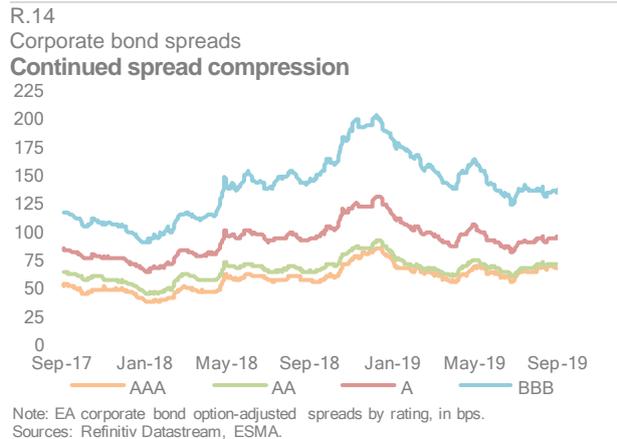
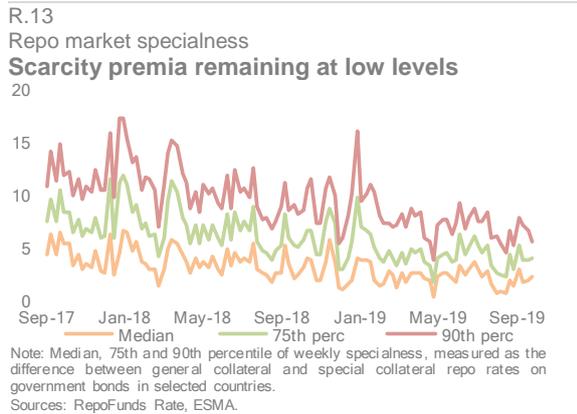
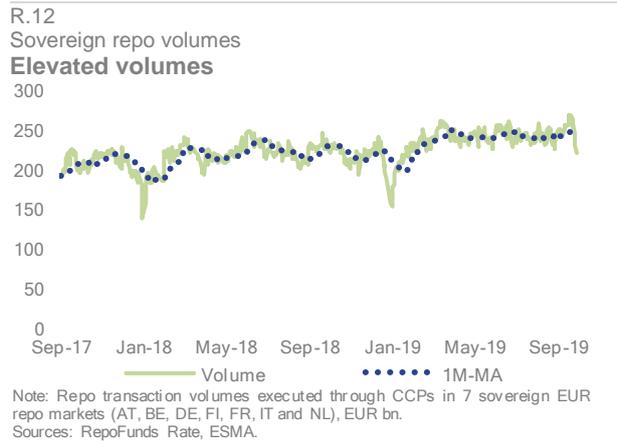
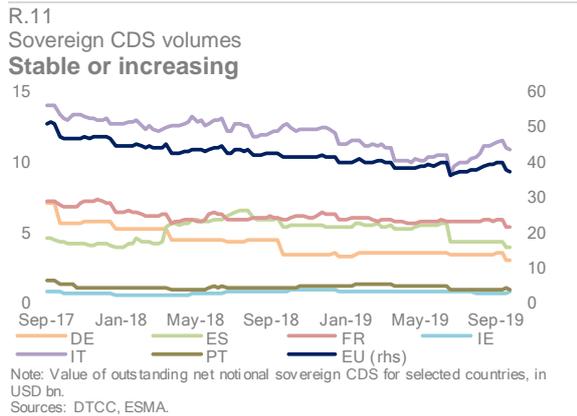
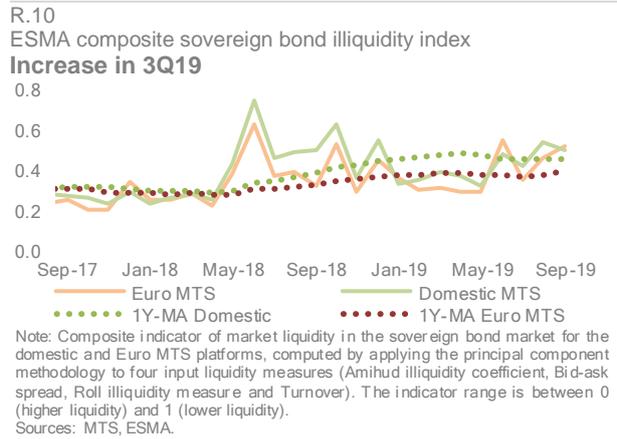
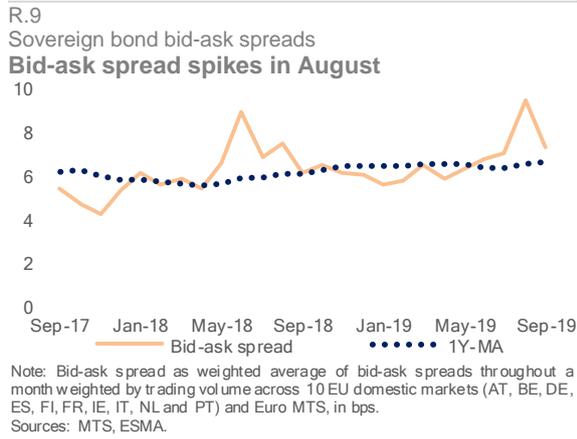
Note: Implied volatilities for 3M options on exchange rates, in %. 5Y-MA EUR is the five-year moving average of the implied volatility for 3M options on EUR-USD exchange rate.
Sources: Refinitiv EIKON, ESMA.

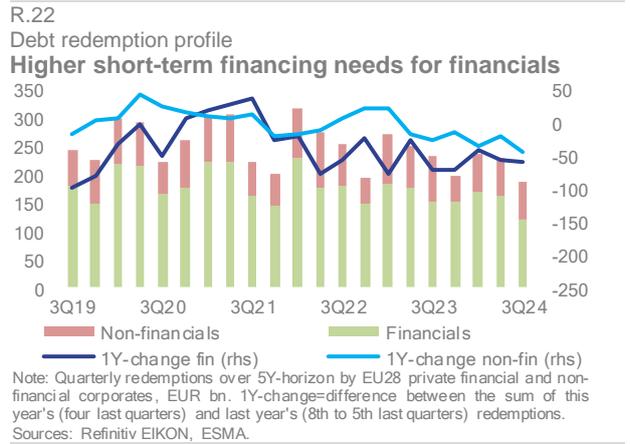
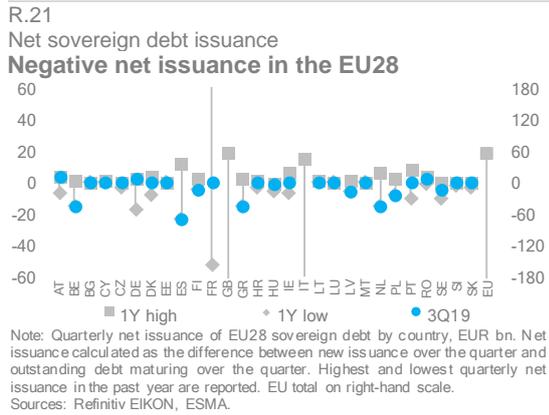
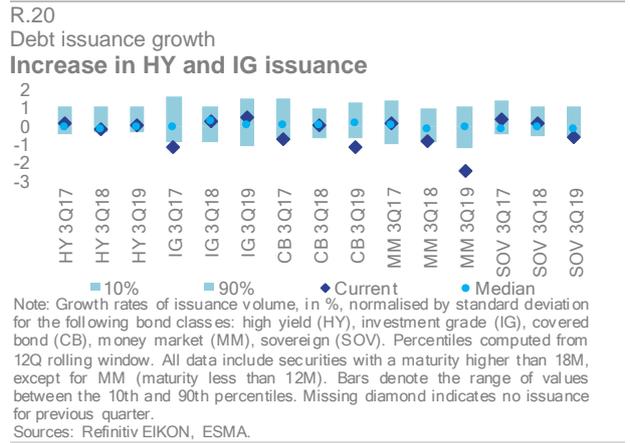
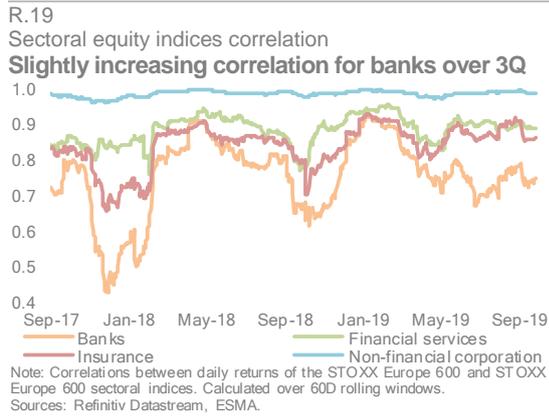
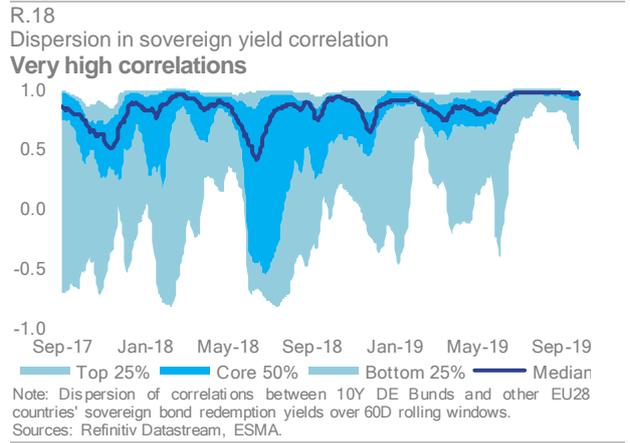
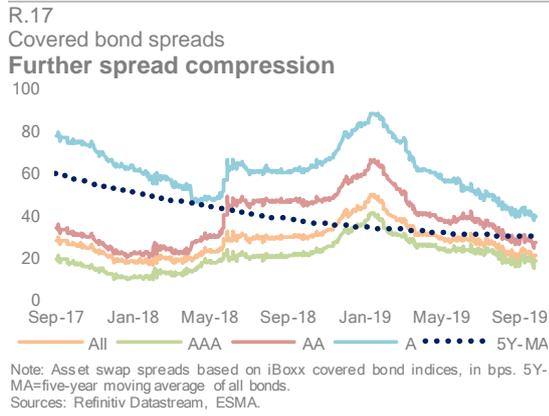
R.8

Sovereign risk premia Yield compression



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





Infrastructures and services

R.23

Risk summary

Risk level



Risk change from 2Q19



Outlook for 4Q19



Risk drivers

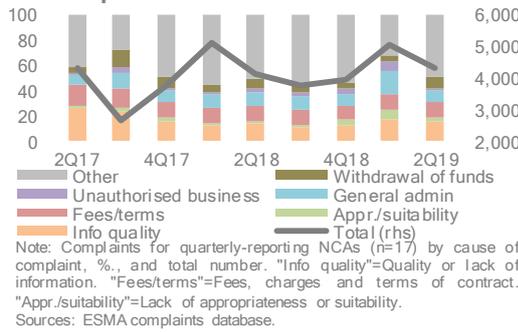
- Operational risks, incl. cyber and Brexit-related risks
- Conduct risk, incl. intentional or accidental behaviour by individuals, market abuse
- Systemic relevance, interconnectedness between infrastructures or financial activities, system substitutability

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 judgment.

R.24

Complaints indicator by rationale

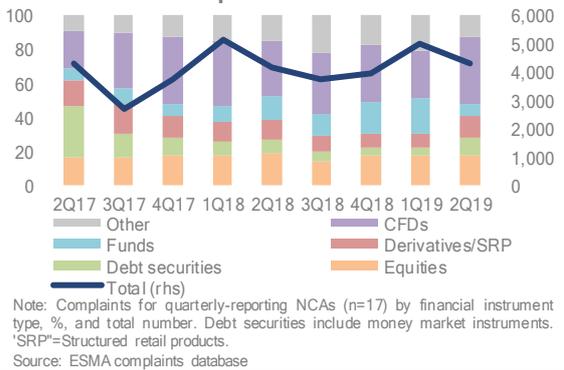
Less complaints in 2Q19



R.25

Complaints indicator by instrument

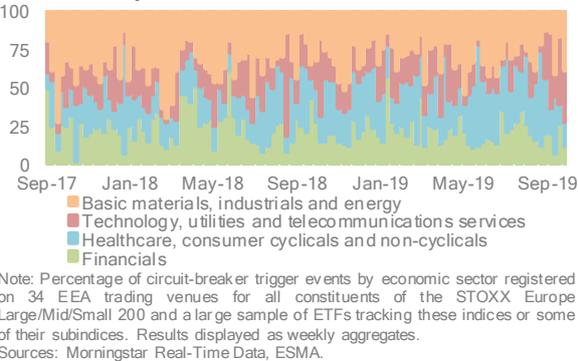
Increase in CfD complaints



R.26

Circuit-breaker-trigger events by sector

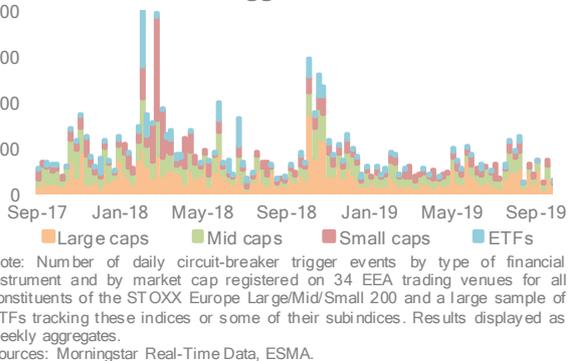
No sectorial pattern



R.27

Circuit-breaker occurrences by market capitalisation

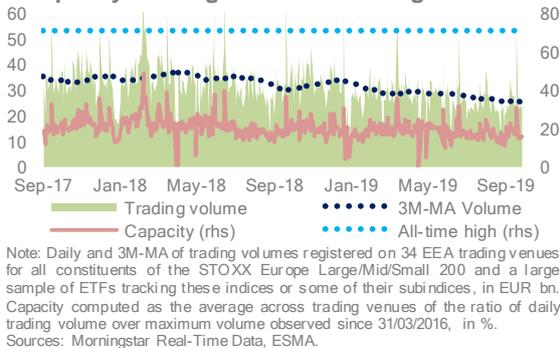
Low number of CBs triggered in 3Q19



R.28

Trading system capacity proxy

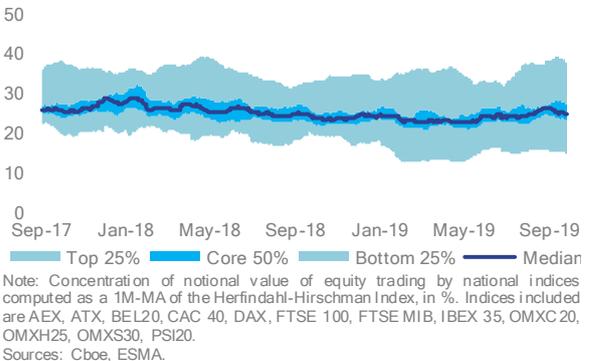
No capacity shortage on EU28 trading venues



R.29

Equity market concentration

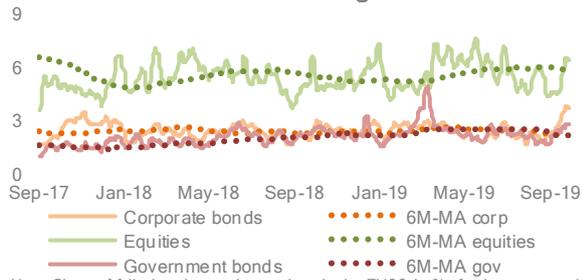
Increase at end of 3Q19



R.30

Settlement fails

Settlement fail rates below longer-term trend

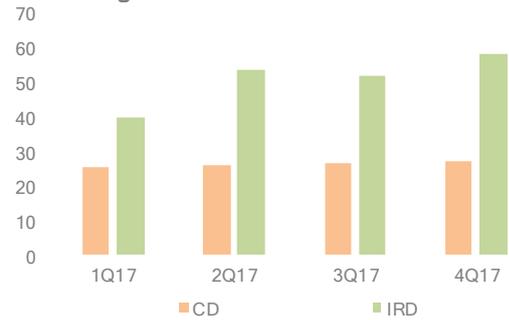


Note: Share of failed settlement instructions in the EU28, in % of value, one-week moving averages. Jump in December 2018 due to a single transaction of EUR 500 bn instructed on 10 December with settlement requested on the same day, which was finally cancelled on 18 December.
Sources: National Competent Authorities. ESMA.

R.31

OTC central clearing rates

Increasing for CD and IRDs in 2017

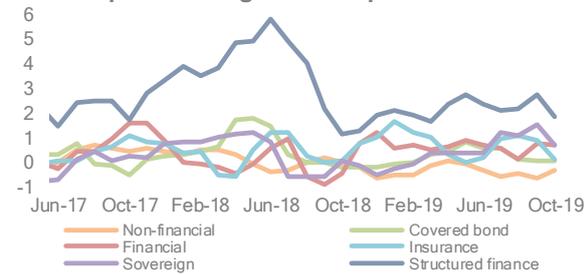


Note: Share of gross notional amount outstanding for credit derivatives (CD) and interest rate derivatives (IRD), in %.
Sources: TRs, ESMA.

R.32

Ratings drift by asset class

Slower upward rating drift except non-financials

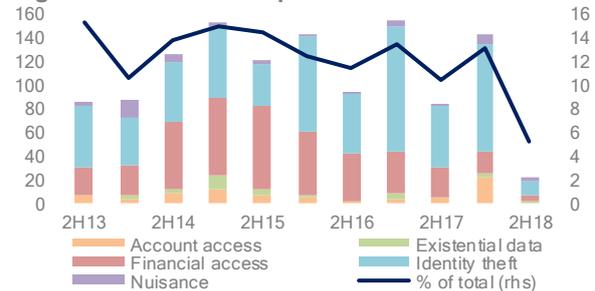


Note: 3 month moving average of net change in ratings from all credit rating agencies, excluding CERVED and ICAP, by asset class computed as a percentage number of upgrades minus percentage number of downgrades over number of outstanding ratings.
Sources: RADAR, ESMA.

R.33

Financial services data breaches

High risk for financials persists



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 on right-hand scale.
Sources: Gemalto Breach Level Index, ESMA.

Asset Management

R.34

Risk summary

Risk level



Risk change from 2Q19



Outlook for 4Q19



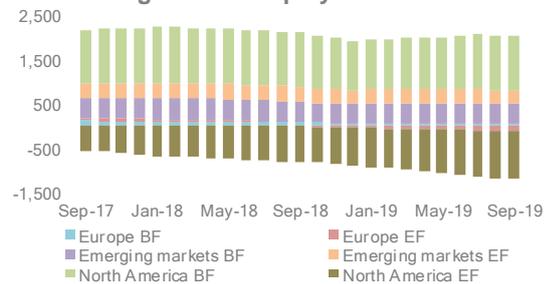
Risk drivers

- Asset re-valuation and risk re-assessment
- Uncertainty on economic outlook and political developments in EU
- Correlation in asset prices
- Search-for-yield behaviour leading to investments in less liquid assets

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 judgment.

R.35

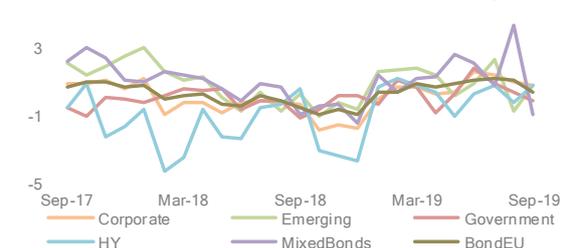
Cumulative global investment fund Rebalancing between equity and bond funds



Note: Cumulative net flows into bond and equity funds (BF and EF) over time since 2004 by regional investment focus, EUR bn.
Sources: Refinitiv Lipper, ESMA.

R.36

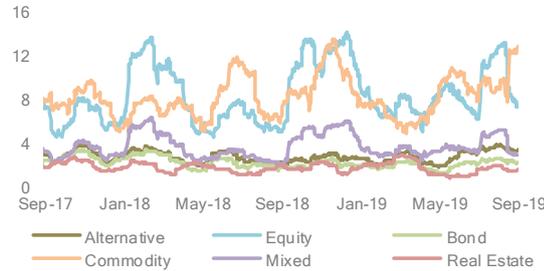
EU bond fund net flows Reversal in mixed bond fund flows end 3Q19



Note: Net flows for bond funds, in %. Funds investing in corporate and government bonds that qualify for another category are only reported once e.g. funds investing in emerging government bonds reported as Emerging; funds investing in HY corporate bonds reported as HY.
Sources: Refinitiv Lipper, ESMA.

R.37

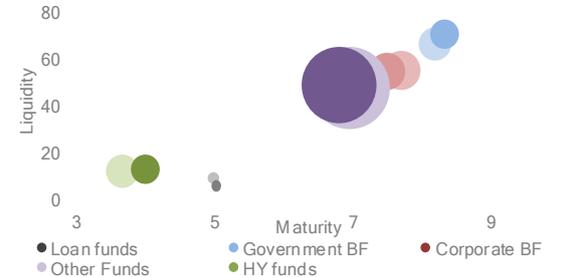
RoR volatilities by fund type Followed underlying EQ and commodity volatility



Note: Annualised 40D historical return volatility of EU domiciled mutual funds, in %.
Sources: Refinitiv Lipper, ESMA.

R.38

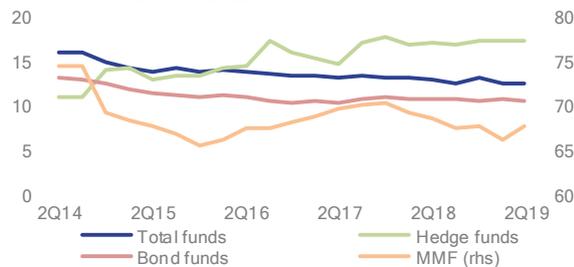
Liquidity risk profile of EU28 bond funds Stable liquidity and mixed maturity changes



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. 2017 (bright colours) and 2018 (dark colours).
Sources: Thomson Reuters Lipper, ESMA.

R.39

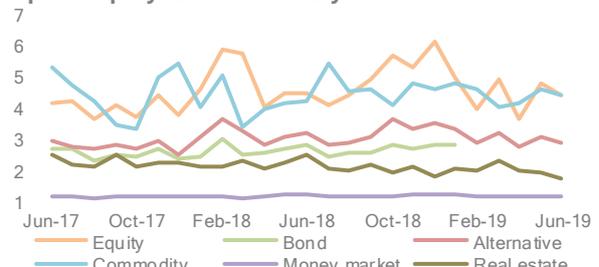
Financial market interconnectedness Stable for all but MMFs



Note: Loan and debt securities vis-à-vis MFI counterparts, as a share of total assets. EA investment funds and MMF, 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.

R.40

Retail fund synthetic risk and reward indicator Up for equity and commodity funds



Note: The calculated synthetic risk and reward indicator (SSRI) is based on ESMA SRR1 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.



European Securities and
Markets Authority

