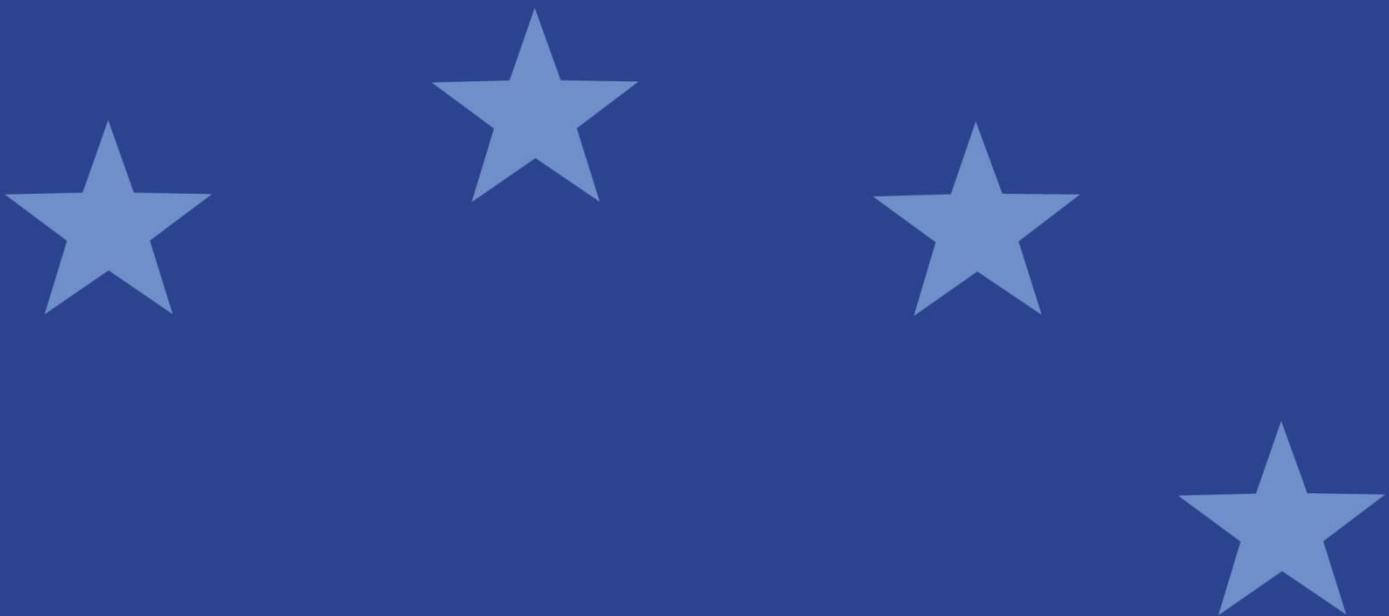




European Securities and
Markets Authority

ESMA Risk Dashboard

No. 3, 2019



10 September 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, incl. 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 ESAs 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 2Q19 remains largely unchanged compared with the previous quarter. In 2Q19 EU financial markets were characterised by increasing equity market prices and stable liquidity supply in secondary bond markets, with volatility episodes resulting from breakdowns in trade negotiations. Securities markets remain the key risk area based on high valuation by historic standards. Renewed concerns about weak economic growth and trade tensions have fuelled the demand for safe-haven bonds. The decoupling between equities and bond yields, together with the rapid rise in asset valuations, could be a sign of investors' complacency and underappreciation of market risks. Looking ahead, downside risks to growth for the EU and the global economy, the escalation of trade tensions and rise of protectionist measures, the reignited search-for-yield behaviour and the persisting uncertainty about the ultimate Brexit outcome continue to be the most important risks to EU financial stability.

Risk summary

Risks in the markets under ESMA remit remained at high levels, reflecting very high risk in securities markets and elevated risks for asset management, infrastructures and services. Our assessment of the individual risk categories did not change from 1Q19, with market risk remaining very high due to asset valuations that seem to exceed levels justified by fundamentals, subdued economic growth prospects and geopolitical developments as well as the flattening of yield curves. Liquidity risk was high, with isolated events highlighting pockets of risk in the asset management industry. While the level of credit risk is stable, the deteriorating quality of outstanding corporate debt, and the growth in leveraged loans and collateralised loan obligations should warrant attention of the public authorities. Our risk outlook for the asset management sector has deteriorated, as a result. Contagion risk remained high, driven by high levels of interconnectedness between different segments of financial markets and amplified by the low-yield environment and associated incentives for risk-taking. Operational risk was elevated as Brexit-related risks to business operations remain a major concern. Investor risks persist across a range of products, and under the MiFIR product intervention powers most NCAs have adopted permanent measures relating to

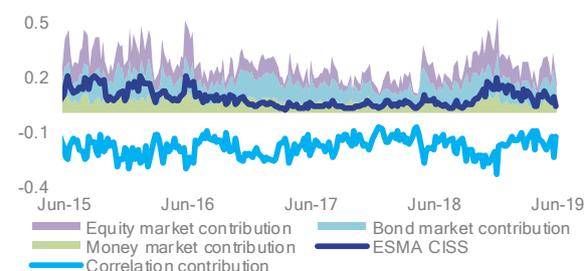
binary options and contracts for differences. Going forward, weak economic fundamental and intensifying concerns over a no-deal Brexit remain key risk drivers for 2H19.

Systemic risk was broadly stable in 2Q19, decreasing slightly with respect to the relatively high levels reached in 1Q19. Equity markets register the highest contribution to the systemic stress measure. Risks linked to the macroeconomic environment and to political events could bring additional uncertainty to financial markets.

R.2

ESMA composite systemic stress indicator

Systemic stress 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.

Risk sources

Macroeconomic environment: The softening growth momentum continued in the first half of 2019 after the slowdown experienced in 2018. Economic expansion in the EU is expected to reach 1.4% in 2019,¹ slightly below the European Commission's winter projections. Similarly, the EA continues to grow at a moderate pace, with the GDP estimated increase revised downwards to 1.2%. The EU aggregate deficit reached 0.6% of GDP, its lowest level since 2000. However, budget deficits in the EU are expected to rise due to subdued economic growth. The global GDP outlook (excluding the EU) is expected to slow to 3.6%, sustained by emerging market economies. Global trade tensions and the uncertainty surrounding their evolution still pose risks for the global economy and continue to be reflected in market volatility.

Interest rate environment: The major central banks have reassessed their monetary policy stances and signalled that monetary policy easing could be implemented in the near term. The ECB has adjusted its forward guidance and announced a new round of quarterly targeted long-term refinancing operations. As market participants have adjusted their expectations towards a persisting low interest rate environment, market developments point to the return of risks associated with search-for-yield strategies. Risk premia compression became more pronounced, especially in corporate and covered bond markets (R.15, R.17) and equity valuations continued to increase.

EU sovereign debt markets: Vulnerabilities are pronounced in the sovereign sector, as a more persistent growth slowdown could raise concerns over the sustainability of sovereign debt. The reinforced demand for safe-haven assets contributed to a further reduction in European sovereign bond yields. Germany's ten-year benchmark bond yield fell again below zero in May and further declined, reaching a record low and trading below the ECB's deposit rate for the first time. On average, the ten-year sovereign yields decreased by 0.4% in 2Q19.

Market functioning: A disorderly UK exit from the EU continues to be a possibility even though the extension of Article 50(3) of the Treaty on European Union (TEU) until 31 October 2019 has postponed the Brexit deadline. To limit the potential adverse effects associated with a no-deal scenario, ESMA has taken important steps to reassure markets and limit operational uncertainties, as the equivalence decisions for the UK CSD and UK CCPs. Market participants have been repeatedly called upon to prepare for the impact that a no-deal Brexit would have on

their activities and business operations. Despite the uncertainty surrounding the Brexit outcome, trading conditions in European financial markets have been orderly over the period. The number of circuit breakers triggered in 2Q19 (43 per week on average) was at low levels compared to previous quarters. Financial firms are increasingly outsourcing some operational functions to cloud-based systems. However, the use of third-party cloud services may also pose risks related to information security, in addition to risks in areas such as governance and business continuity. Moreover, from a systemic perspective the use of third-party providers is associated with concentration risk. The transition from the existing interbank offered rates to the new risk-free rates raises risks associated with the repricing of existing financial products and derivative positions for both banks and counterparties. The €STR, an overnight funding rate used for euro swaps discounting, will be published by the ECB starting from October 2019 and will complement existing benchmark rates produced by the private sector. EU supervised entities may continue to use the Euribor, as the benchmark is considered BMR-compliant.

Political and event risk: Brexit remains the most important source of political risk for EU financial markets, although the decision taken by the European Council on 11 April to extend Article 50(3) TEU has reduced the immediate risk of a disorderly transition of the UK out of the EU. Coupled with increasing trade-related risks, political uncertainty and the potential for deteriorating public finances could undermine the sustainability of the economic recovery with potential adverse consequences on EU markets. In this perspective, concerns over debt sustainability for sovereigns could hamper investors' confidence and lead to a pullback in private investment.

Risk categories

Market risk – very high, outlook stable: European equities continued their recovery in 2Q19, albeit under more volatile market conditions with intermittent market corrections linked to trade tensions. Financials and insurance shares rose by around 8%. Non-financial equities' weaker performance (+3%) was likely due to the impact of protectionist trade measures. Bank equities, in a sharp reversal, retreated to the level of early January, potentially related to the global downward trend in bond yields following changed expectations towards accommodative monetary policies. The changed expectations could boost investors' risk appetite and reignite search-for-yield strategies. This is reflected in the diverging performance at the sector level together with the

¹ European Commission, European Economic Forecast, Spring 2019.

decoupling between equities and bonds, indicating that market risks are potentially being underpriced. This could leave investors vulnerable to volatility episodes and abrupt shifts in market sentiment, that in the past quarter have appeared to be driven by political developments in Europe, geopolitical events and the flattening of yield curves (R.6, R.7). The ongoing trade tensions appear to have introduced a new stream of uncertainty into EU markets, resulting in further market volatility. The near-term volatility VSTOXX1M reacted strongly to the announcements of protectionist measures. The three-month GBP/EUR implied volatility pulled back and stabilised after the postponement of the Brexit deadline. With persisting uncertainties related to Brexit negotiations, the risk of volatility rising sharply as new key deadlines approach remains high.

Liquidity risk – high, outlook stable: In 2Q19 liquidity remained relatively ample on equity markets and fluctuated around its long-term average (R.4). EU corporate bond market liquidity conditions improved moderately over the reporting period, with bid-ask spreads slightly narrowing (R.16). On sovereign bond markets, liquidity deteriorated in June as a result of lower turnover levels compared to the previous months (R.11). On the other hand, scarcity premia on EA government bond collateral continued their decline (R.14), and turnover in sovereign repo markets increased (R.13). The rotation from equity to bonds continued in 2Q19, sustained by the increased risk appetite and leading some funds to invest in less liquid assets. Against the backdrop of more volatile flows, the longer portfolio duration exposes bond funds to a higher interest -rate risk. Moreover, the activation of liquidity management tools following large outflows, including the suspension of redemptions, highlighted the existence of pockets of liquidity risk in the asset management industry.

Contagion risk – high, stable outlook: With most yields on ten-year benchmark sovereign bonds decreasing and German Bund yields turning negative, the correlation between German and other EU countries' bond yields remained high. The dynamics of the dispersion levels potentially reflected the slightly lower degree of differentiation between core and peripheral EA countries amid mounting evidence of the economic slowdown (R.19). Against this backdrop, concerns over debt sustainability may weigh on financial markets, and renew worries over the sovereign-financial sector nexus. 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: The credit risk environment has been characterised by renewed credit spread compression in a context of continuing deterioration of overall credit quality. These are strong indications for renewed search-for-yield behaviour. Sovereign bond yields have declined in 2019 (R.9). Corporate spreads continue tightening in parallel with historically high valuations. Credit spread premia on lower-rated investment grade (BBB) non-financial corporate bonds returned to the 3Q18 levels, decreasing about 36% with respect to the end-of-year peak, in line with the receding risk aversion observed in all market segments. Issuance in the high-yield market increased substantially in 2Q19, close to the record levels observed in 2017. Credit quality continues to deteriorate in the investment-grade segment of the credit market, with the share of newly issued BBB-rated EU corporate debt reaching 30% (R.17). The growth of leveraged loans and CLOs is becoming a concern, as investor protection standards have reportedly been diluted, with covenant-lite contracts now dominating the market (>80%). Even though the EU leveraged loan market has remained relatively small, post-crisis record-new issuance in 2018 and high concentration warrant enhanced monitoring. European funds exposures to leveraged loans and CLOs remain limited (around EUR 130bn). Overall, investors remain exposed to a swift repricing of risky assets.

Operational risk – elevated, stable outlook: Brexit remains a source of concern for operational risk, as a disorderly UK exit from the EU could impact cross-border financial services arrangements and increase operational and contractual uncertainties. Policymakers, including ESMA, have worked on policy mitigation measures aiming to maintain well-functioning markets. The ECB and Bank of England have opened a swap line to provide EUR to UK banks and lend GBP to EA banks, should the need arise. ESMA and NCAs have identified several significant investor-protection and conduct-risk concerns in the EU. Under ESMA's product intervention powers provided in MiFIR, the temporary restrictions related to contracts for differences and the temporary prohibition on binary options were not renewed after one year of application, as most NCAs have taken permanent national product measures that are at least as stringent as ESMA's measures. Concerns over cyber risks persist, especially with respect to the integrity of proprietary data as financial data breaches are more frequent in comparison to breaches in other sectors (R.33).

Securities markets

R.3

Risk summary

Risk level



Risk change from 1Q19



Outlook for 3Q19



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 ESAs 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.

Risk drivers

- Asset revaluation and risk re-assessment
- Low interest rate environment and excessing risk taking
- Political risk
- Geopolitical and event risks, especially trade tensions

R.4

ESMA composite equity illiquidity index

Liquidity aligned to long-term trend

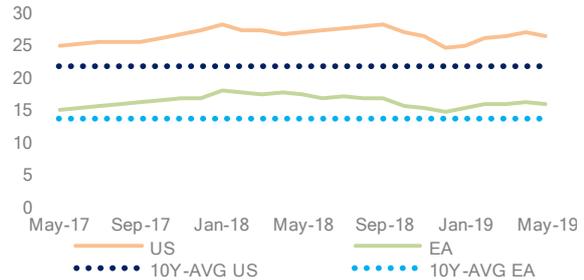


Note: Composite indicator of illiquidity in the equity market for the current STOXX Europe Large 200 constituents, computed by applying the principal component methodology to six input liquidity measures (Amihud illiquidity coefficient, bid-ask spread, Hui-Heubel ratio, turnover value, inverse turnover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

R.5

Equity valuation

Increase for EA and US in 2Q19

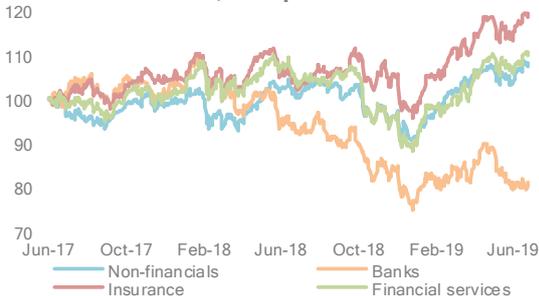


Note: Price-earnings ratios based on average inflation-adjusted earnings from the previous 10 years (cyclically adjusted price-earnings ratios). Averages computed from the most recent data point up to 10 years before.
Sources: Refinitiv Datastream, ESMA.

R.6

Equity prices

Continued increase, except for banks

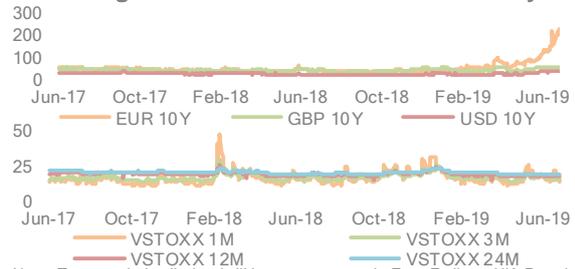


Note: STOXX Europe 600 equity total return indices. 01/06/2017=100.
Sources: Refinitiv Datastream, ESMA.

R.7

Financial instrument volatilities

Increasing volatilities amid market uncertainty

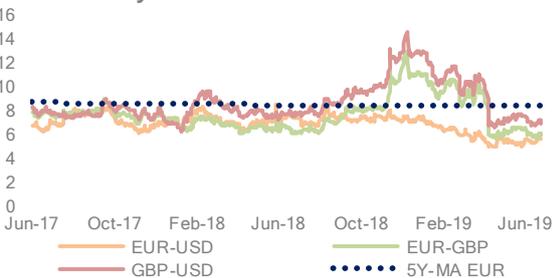


Note: Top panel: implied volatilities on one-month Euro-Euribor, UK Pound Sterling-GBP Libor and US Dollar-USD Libor swaptions measured as price indices, in %; bottom panel: EURO STOXX 50 implied volatilities, measured as price indices, in %.
Sources: Refinitiv EIKON, Refinitiv Datastream, ESMA.

R.8

Exchange rate volatilities

GBP volatility receded to 3Q18 levels

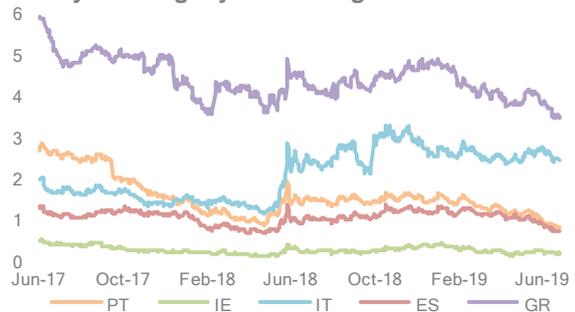


Note: Implied volatilities for 3M options on exchange rates, in %. 5Y-MA EUR is the five-year moving average of the implied volatility for 3M options on EUR-USD exchange rate.
Sources: Refinitiv EIKON, ESMA.

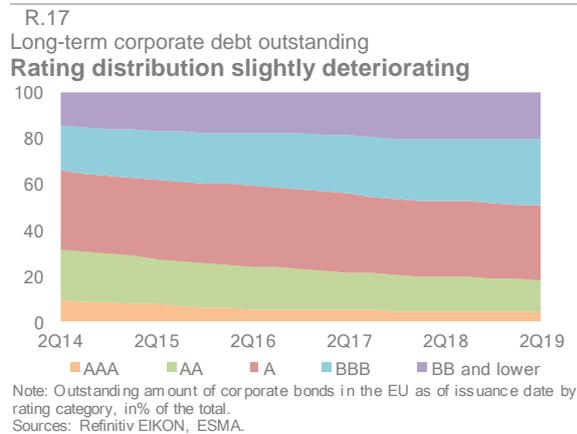
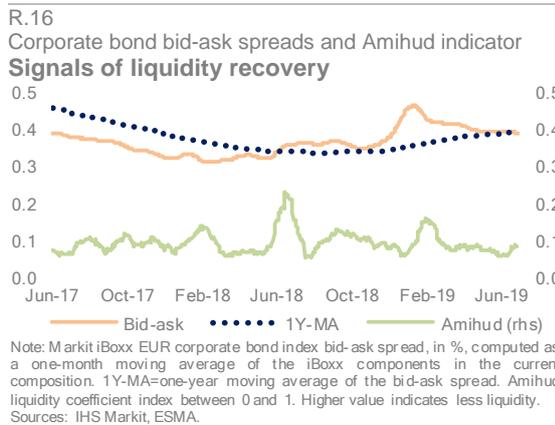
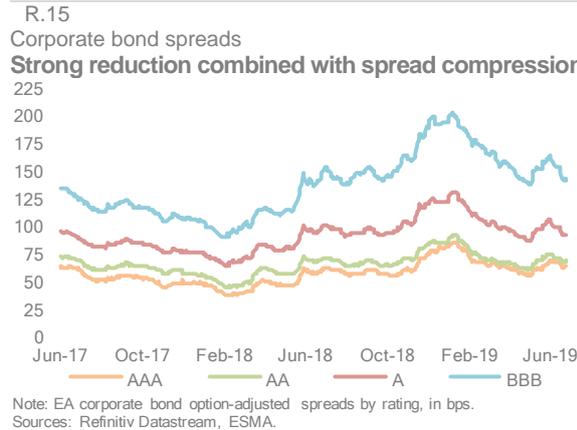
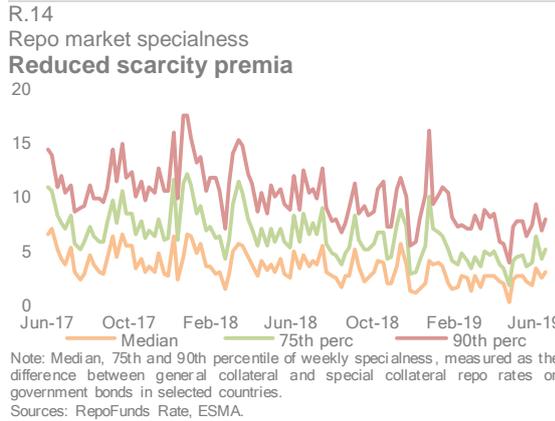
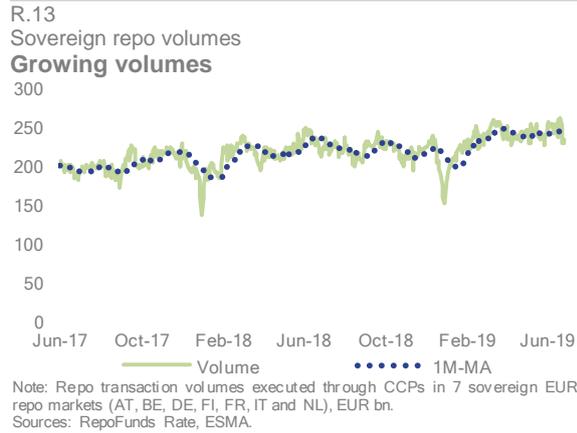
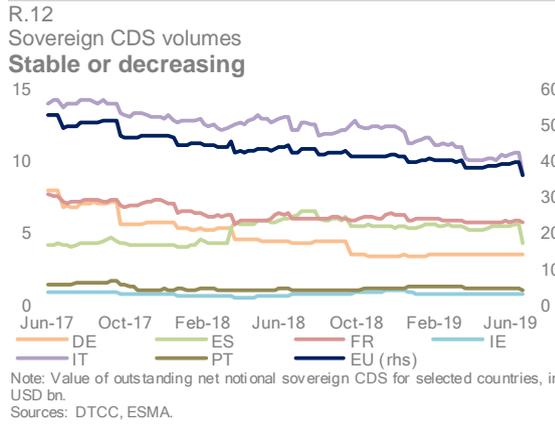
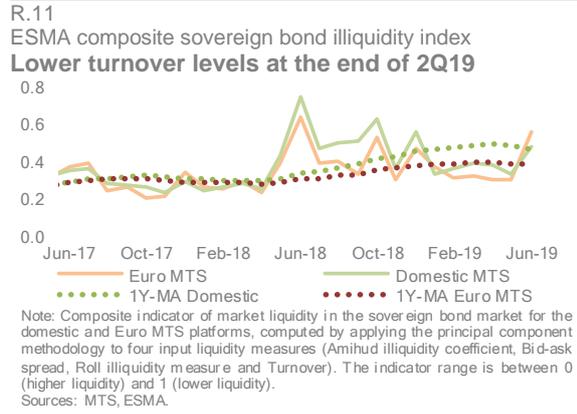
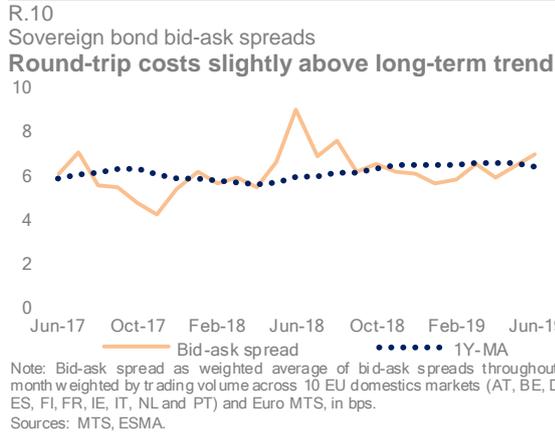
R.9

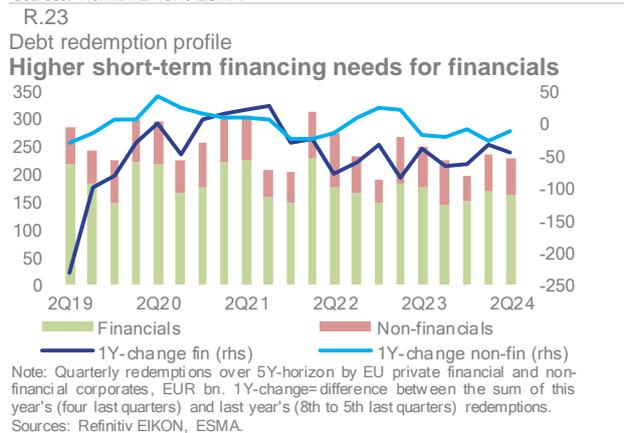
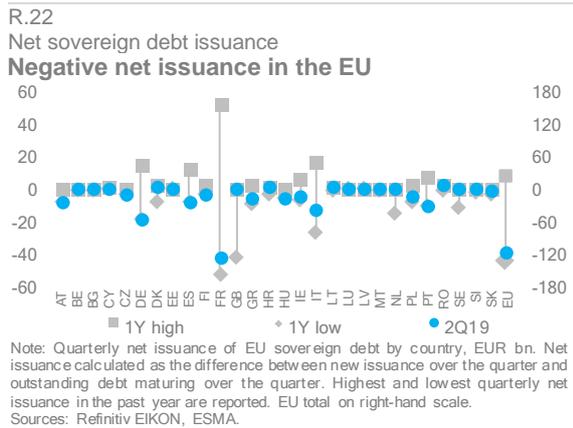
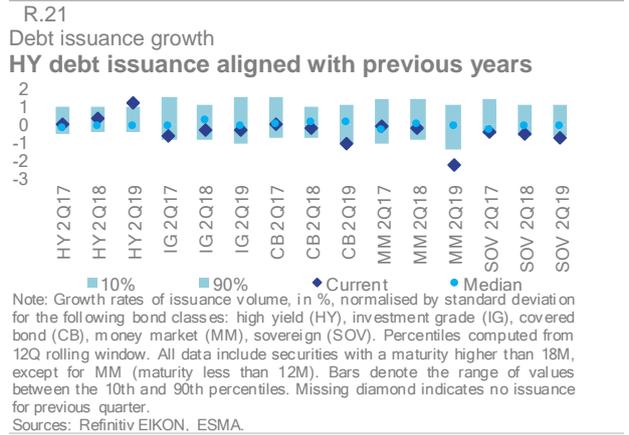
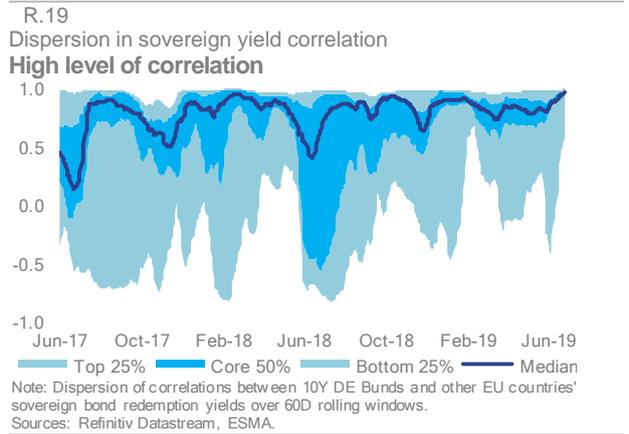
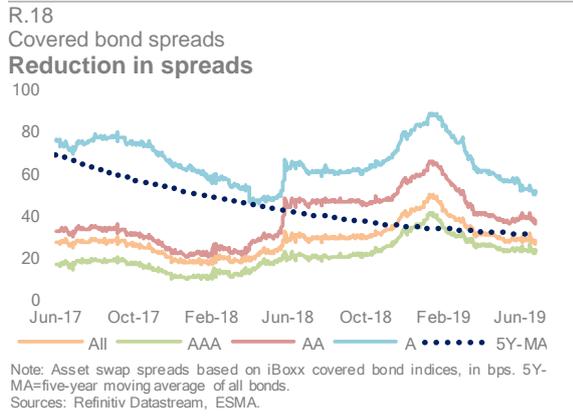
Sovereign risk premia

Most yields slightly decreasing



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





Infrastructures and services

R.24

Risk summary

Risk level



Risk change from 1Q19



Outlook for 3Q19



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 ESAs 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.

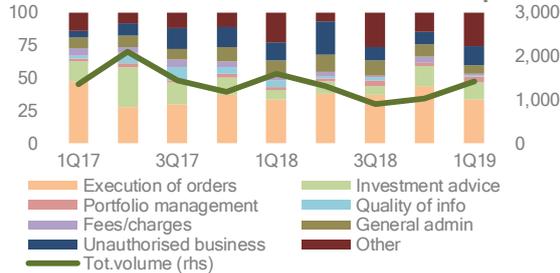
Risk drivers

- 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

R.25

Complaints indicator by rationale

Execution of orders as main cause for complaints

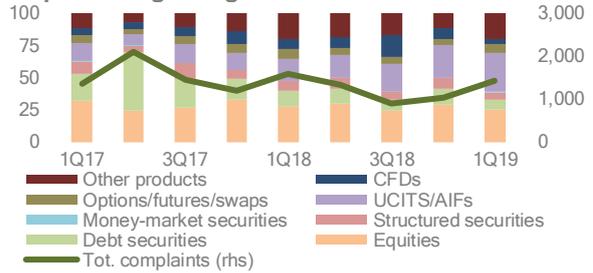


Note: Complaints reported directly to 17 NCAs: AT, BG, CY, CZ, DE, DK, EE, ES, HR, HU, IT, LT, LU, MT, PT, RO, SI. Line shows total volume of these complaints. Bars show % of total volume by cause. Data collected by NCAs. Source: ESMA complaints database

R.26

Complaints indicator by instrument

Complaints regarding debt securities decline

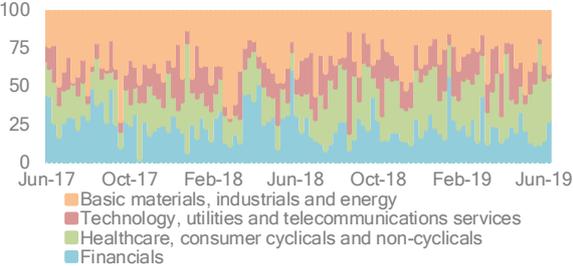


Note: Complaints reported directly to 17 NCAs: AT, BG, CY, CZ, DE, DK, EE, ES, HR, HU, IT, LT, LU, MT, PT, RO, SI. Line shows total number of these complaints. Bars show % of total volume by type of financial instrument. CFDs=Contracts for Differences. Source: ESMA complaints database.

R.27

Circuit-breaker-trigger events by sector

No sectorial pattern

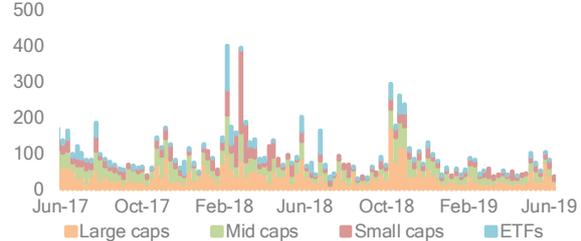


Note: Percentage of circuit-breaker trigger events by economic sector registered on 34 EEA trading venues for all constituents of the STOXX Europe Large/Mid/Small 200 and a large sample of ETFs tracking these indices or some of their subindices. Results displayed as weekly aggregates. Sources: Morningstar Real-Time Data, ESMA.

R.28

Circuit-breaker occurrences by market capitalisation

Low number of circuit breakers triggered in 2Q19

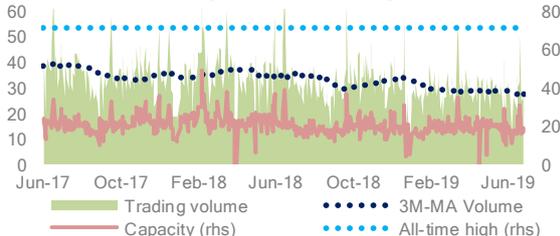


Note: Number of daily circuit-breaker trigger events by type of financial instrument and by market cap registered on 34 EEA trading venues for all constituents of the STOXX Europe Large/Mid/Small 200 and a large sample of ETFs tracking these indices or some of their subindices. Results displayed as weekly aggregates. Sources: Morningstar Real-Time Data, ESMA.

R.29

Trading system capacity proxy

No capacity shortage on EU trading venues

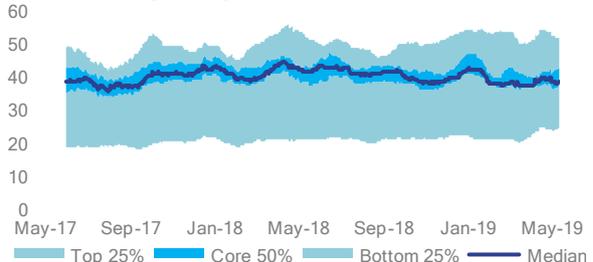


Note: Daily and 3M-MA of trading volumes registered on 34 EEA trading venues for all constituents of the STOXX Europe Large/Mid/Small 200 and a large sample of ETFs tracking these indices or some of their subindices, in EUR bn. Capacity computed as the average across trading venues of the ratio of daily trading volume over maximum volume observed since 31/03/2016, in %. Sources: Morningstar Real-Time Data, ESMA.

R.30

Equity market concentration

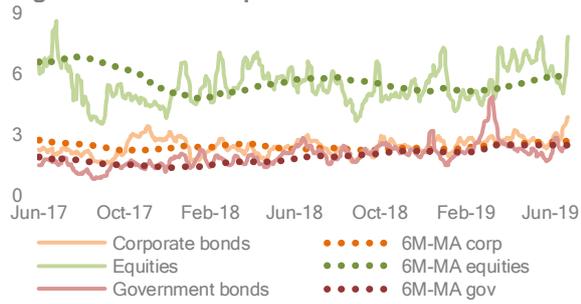
Hike at the beginning of 2Q19



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 AEX, ATX, BEL20, CAC 40, DAX, FTSE 100, FTSE MIB, IBEX 35, OMXC20, OMXH25, OMXS30, PSI20. Sources: BATS, ESMA.

R.31

Settlement fails
Higher in June for equities



Note: Share of failed settlement instructions in the EU, in % of value, and six-month moving averages.
Sources: National Competent Authorities, ESMA.

R.32

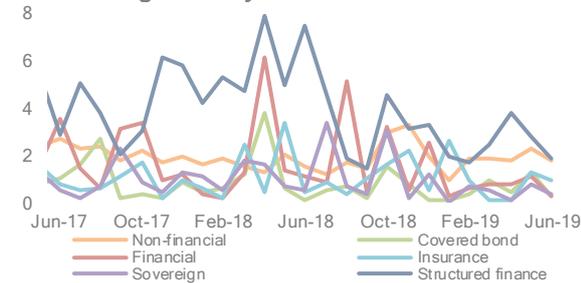
OTC central clearing rates
Increasing for CD and IRDs in 2017



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

R.33

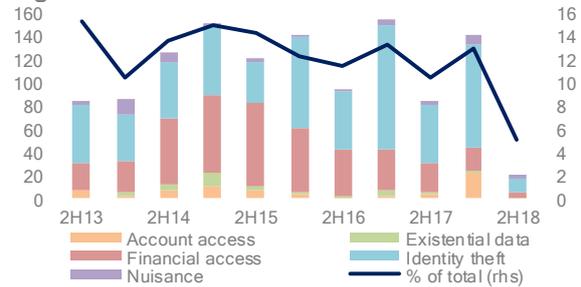
Rating changes
Lower rating volatility



Note: Volatility of ratings by all credit rating agencies, in %, excluding CERVED and ICAP, by asset class computed as number of rating changes over number of outstanding ratings.
Sources: RADAR, ESMA.

R.34

Financial services data breaches
Higher risk for financials



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.35

Risk summary

Risk level



Risk change from 1Q19



Outlook for 3Q19



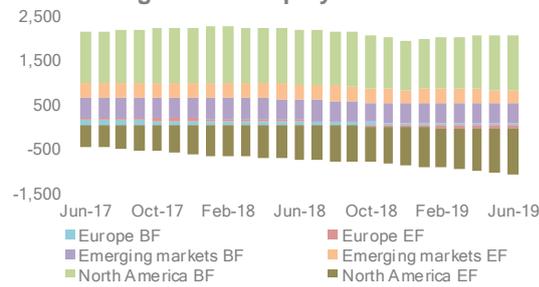
Risk drivers

- 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 ESAs 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.36

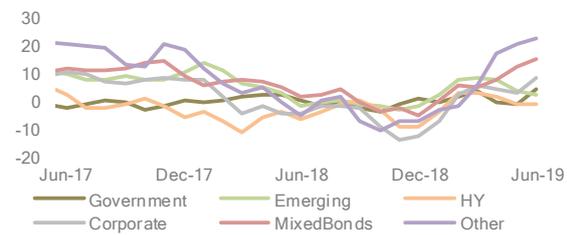
Cumulative global investment fund Rebalancing between equity and bond funds



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.37

EU bond fund net flows Inflows into mixed 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 HY corporate bonds reported as HY). Sources: REFINITIV Lipper, ESMA.

R.38

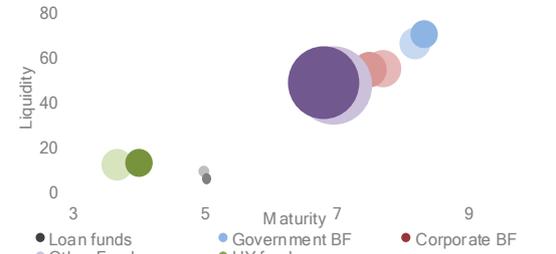
Rate of return volatilities by fund type Volatility receding for all asset classes



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

R.39

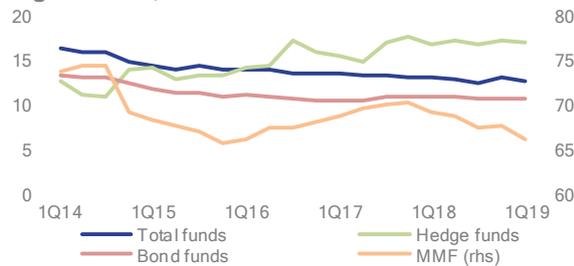
Liquidity risk profile of EU bond funds Stable liquidity and mixed maturity changes



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

R.40

Financial market interconnectedness High for HFs, stable for 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.41

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



Note: The calculated Synthetic Risk and Reward Indicator is based on ESMA SRRRI 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.



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