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ESMA risk assessment

Risk summary

The Covid-19 pandemic, in combination with the valuation risks to which we had alerted in ESMA’s previous risk assessments, led to massive equity market corrections in 1Q20. We provided an RD up-date on 2 April to inform about the new risk landscape. Since this risk up-date, markets have seen a remarkable rebound, not least in light of massive public policy interventions in the EU and elsewhere. As the market environment remains fragile, we maintain our risk assessment: Going forward, we see a prolonged period of risk to institutional and retail investors of further – possibly significant – market corrections and see very high risks across the whole of the ESMA remit. To what extent these risks will further materialise will critically depend on two drivers: the economic impact of the pandemic, and any occurrence of additional external events in an already fragile global environment. The impact on EU corporates and their credit quality, and on credit institutions are of particular concern, as are growing corporate and public indebtedness, as well as the sustainability of the recent market rebound.

Market assessment

Overall ESMA remit: In light of the COVID-19 pandemic and its impact on the EU economy and financial markets in 1Q20, ESMA assesses the risks in its overall remit, the securities markets, infrastructures and in asset management as very high for the time being. The same applies to liquidity and market risks, and we expect a rise in operational, credit, contagion and consumer risks.

Securities markets: Equity prices saw a major price correction, with peak-to-trough falls (-33% for Eurostoxx) and volatility levels (above 100% for Eurostoxx 1M implied volatility – R.35) comparable to the Global Financial Crisis. In light of massive public policy interventions in the EU and elsewhere, including fiscal, monetary and regulatory relief measures, market conditions have partially improved since end-March. Still, EU equities remain 25% below the pre-crisis levels (40% for EU banks). EU sovereign markets started to show signs of growing fragmentation, with a peak in spreads at 146bps on average for EU member’s ten-year yields (R.43), before decreasing after ECB interventions mid-March. Corporate bond spreads jumped (R.45), although they remained far below the levels reached in 2008 or in 2012. Overall market conditions improved slightly towards the end of the quarter. To support transparency, ESMA on 16 March lowered the reporting threshold of net short positions on shares to 0.1%. Several Member States also imposed short or long-term short-selling bans (AT, BE, FR, GR, IT, ES).

Infrastructures and services: Trading volumes surged to all-time highs and circuit breakers (CBs) were triggered extensively (R.52). No major disruption occurred at EU trading venues or CCPs. Individual cases of clearing member defaults occurred at an US CCP and a commodity clearinghouse in Poland, not registered as an EU CCP. Some initial margin model parameters were updated to respond to the higher volatility. In application of the CCP risk management frameworks, initial and variation margins increased significantly, including intra-day margins calls. EU CSDs were also put under stress with settlement fails at high levels in March across asset classes (e.g. jumping for equities to around 12%, R.7), amid heavily increased settlement volumes and overall turnover. Fails were reported to be mainly caused by operational rather than liquidity issues and were usually resolved within one to five days. The proportion of fails receded while still remaining above pre-crisis levels. In addition to COVID-19 related turbulences, Brexit remains a source of risk. In the area of central clearing, 78% of non-UK EEA counterparties clearing their derivative positions are doing so at UK CCPs (based on notional amounts outstanding, as of 10 January 2020). For CSDs, as of January 2020, 16% of transactions are settled at a UK CSD.

Note: Assessment of the main risks by risk segments for markets under ESMA’s remit since the last assessment, and outlook for the forthcoming quarter. Risk assessment based on categorisation of the European Supervisory Authorities (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 and 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.

Asset management: The asset management industry experienced turbulences with ETFs showing signs of price dislocation and massive outflows, together with UCITS and MMFs. Performance decreased across asset classes in line with market valuations. Suspensions also increased around mid-March amid general signs of low fund liquidity. Low market liquidity proved particularly challenging for high-yield, real estate and money market funds, impeding the valuation and rebalancing of portfolios. Outflows and liquidity conditions stabilised towards the end of the quarter across asset classes. Rotation from equity to bond funds came to a halt in 1Q20, with both EU equity and bond funds recording inflows during the first half of 1Q20 and outflows during the COVID-19 market turbulences.

Retail investors: Investor sentiment plunged in March after having picked-up in December 2019 from low lows. In the UCITS universe, retail investors focus mainly on equity and bonds (over 90% of total retail investment in UCITS) as opposed to money market funds or UCITS with alternative strategies. The shift from actively to passively managed funds continued, with shares of passive equity UCITS and ETFs continuing to grow, to 11% and 18% respectively at the end of 2019, up from 10% and 15% in 2018.

Risk drivers

Macroeconomic environment: Macroeconomic forecasts have been revised downwards continuously during 1Q20 as the economic impact of the COVID-19 pandemic unfolded. Latest forecasts² predict a severe recession worldwide with the EU being particularly affected. Governments and central banks have responded with massive fiscal and monetary policy measures. Size and length of the recession will depend on the duration of the pandemic as well as the effectiveness of the policy measures. Price developments and volatility on commodity markets, in particular on oil markets, will potentially weigh on market sentiment and on overall economic conditions.

Interest-rate environment: Central bank policy rates remained globally at low levels in 1Q20. Central banks provided further massive support as the COVID-19 situation evolved. The pandemic and its economic effects should be expected to spur uncertainty in the time to come. Low for long interest rates affect bank margins, put a strain on insurers and pensions and could fuel search for yield behaviours.

Sovereign and private debt markets: Public financing needs are predicted to rise in light of the COVID-19 fiscal policy responses. In January, several member states issued long-term debt, with issuances being oversubscribed. Net debt issuance was close to zero in 1Q20, starting to rise compared to several quarters of negative debt issuance in the EU before (-EUR 130 bn in 4Q19). Sovereign yields peaked during the third week of March only to come back to lower levels after the ECB announcements. On corporate bond markets, yields and spreads rose sharply, reaching a plateau after the ECB announcements, remaining at high levels after that. This reflects increased credit risk and potential future credit rating downgrades. Liquidity on public and private debt markets worsened significantly across indicators. Although not a concern in the short run, debt sustainability issues could arise with the expected high levels of public and private debt that will come out of the current crisis.

Infrastructure disruptions: Despite the surge in activity and market movements that EU infrastructures had to cope with, no major disruption occurred in 1Q20. Circuit breakers were widely used, with a peak above 4400 in one week mid-March, against a long-run weekly average of 81 (R.36). Trading capacity was also tested with volumes reaching all-time highs (R.8). Finally, cyber-attack risks, cyber-related business disruption or data breaches remain among the most widely cited risk sources in the financial industry.

Political and event risk: While monetary and fiscal policy actions have been taken or are underway, uncertainty over the economic impact of COVID-19 is expected to translate into further volatile financial market conditions. In the EU, Brexit will remain on the agenda. Financial institutions should continue to prepare for the end of the UK’s transition period, scheduled for 31 December 2020. Within this timeframe, negotiations are aimed at a framework for regulatory and supervisory cooperation, including equivalence assessments in various areas such as central clearing, central securities depositaries or admissions to trading. Recently, public statements made by the UK Government have given rise to concerns of a future divergence of UK policies from the EU. In the event that an agreement cannot be achieved before 1 January 2021 and the UK proceeds to end the transition period, similar cliff-edge risks that were previously expected in case of a “no-deal Brexit” may arise.

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² IMF World Economic Outlook, Chapter 1, April 2020
Key indicators

Markets

Securities markets

R.1
Market performance
Biggest drop for Equities and commodities

R.2
Market volatilities
Volatilities at 2008 levels

R.3
Corporate bond yields by ratings
Sharp parallel increase across ratings

R.4
Equity prices
Rebound for all sectors but banks

Note: STOXX Europe 600 sectoral return indices, 01/04/2018=100.
Sources: Refinitiv Datastream, ESMA.
Sovereign 10Y yields
Mid-March peak, then back to lower levels

Price earning ratios
Drop to 10Y averages with market correction

Markets
Infrastructures and services

R.7 Settlement fails
Massive impact of market turbulences

R.8 €STR rate and volumes
Transition going smoothly

Note: Yields on 10Y sovereign bonds, selected countries, in %. 1Y-MA=one-year moving average of EA 10Y bond indices computed by Datastream. Sources: Refinitiv Datastream, ESMA.

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

Note: Share of failed settlement instructions in the EU27, in % of value, one-week moving averages. Jump in December 2018 due to a single transaction of EUR 500bn instructed on 10 December with settlement requested on the same day, which was finally cancelled on 18 December. Sources: National Competent Authorities, ESMA.

Note: CSTR rate at 50th, 75th and 25th percentile of the volume (in % lhs) and volumes (in EUR tn). Sources: Refinitiv Datastream, ECB, ESMA.
IRS referencing EONIA and Euribor by maturity

Still significant amounts outstanding

![Graph showing IRS referencing EONIA and Euribor by maturity.](image)

Note: Gross notional amount of IRS outstanding referencing EONIA and Euribor by maturities in the EU. As of 27 March 2020, in EUR bn.
Sources: TRs, ESMA.

Initial Margins held at EU CCPs
Increase in margins as of 3Q19

![Graph showing Initial Margins held at EU CCPs.](image)

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

R.11
CCP Margin breaches
Below 1% in 4Q19

![Graph showing CCP Margin breaches.](image)

Note: Average and maximum margin breach size over the past 12 month for EU CCPs reporting, as a percentage of the total margin held, as of 31 December 2019.
Sources: Clarus Financial Technology, PQD, ESMA.

Markets
Asset management

R.12
R.13
Global investment funds
Outflows across types and regional focus

Fund performance
Negative across asset classes

R.14
Assets by fund type
Growing fund industry

R.15
Rate of return volatilities by fund type
Jump in volatilities

R.16
Leverage by fund type
Reduced leverage for HF in 2019

R.17
EU bond fund net flows
Outflows for all types of bond funds
Bond funds credit risks

Lower credit quality for HY

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

Bond funds’ maturity and liquidity profile

Stable maturity, lower liquidity

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

ETF NAV by asset type

Declining NAV for all types of ETFs

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

ETF net flows by domicile

Large outflows

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

Consumers

R.24
EA households’ net acquisition of financial assets

More currency, deposits and other financials

![Chart showing net acquisition of financial assets over time]

Note: Net acquisition of financial assets and net incurrence of liabilities for EA households as a share of their gross disposable income adjusted for changes in pension entitlements, based on a one-year rolling period, in %. IF shares=investment fund shares. Other financial assets=insurance technical reserves, financial derivatives, loans granted and other accounts receivable. Net financial flows=net household lending (positive values) or borrowing (negative values) from sectoral financial accounts. Liabilities multiplied by -1 to present as outflows.

Sources: ECB, ESMA.

R.25
Investor sentiment

Sentiment collapsed after recent pick-up

![Chart showing investor sentiment over time]

Note: Sentix Sentiment Indicators for the EA retail and institutional investors on a ten-year horizon. The zero benchmark is a risk-neutral position.

Sources: Refinitiv Datastream, ESMA.

R.26
Complaints by cause

Mainly execution of orders

![Chart showing complaints by cause]

Note: Share of complaints received via firms by quarterly-reporting NCAs (n=17) associated with a given MiFID service (EO/IA/PM), excluding complaints with no such category recorded, %. Total including NA=number of complaints via this reporting channel including those with cause recorded as ‘other’ or ‘N/A’. "EO"=execution or transmission of orders. "IA"=investment advice. "PM"=portfolio management.

Risk categories

Liquidity risk

R.28
Net financial liabilities

Equity and IF shares

Other financial assets

Debt securities

Currency and deposits

Net financial liabilities

Equity and IF shares

Other financial assets

Debt securities

Currency and deposits

Net financial flows

Note:
Net acquisition of financial assets and net incurrence of liabilities for EA households as a share of their gross disposable income adjusted for changes in pension entitlements, based on a one-year rolling period, in %.

Sources: ECB, ESMA.

R.29
Complaints by financial instruments

Increase in complaints related to UCIT/AIFs

![Chart showing complaints by financial instruments]

Note: Share of complaints received via firms by quarterly-reporting NCAs (n=17) associated with a given financial instrument type, excluding complaints with financial instrument type recorded as ‘other’ or ‘N/A’, %.

Sources: ESMA complaints database.

Note:
Share of complaints received via firms by quarterly-reporting NCAs (n=17) associated with a given financial instrument type, excluding complaints with financial instrument type recorded as ‘other’ or ‘N/A', %.

"CFDs"=Contracts for Differences
"UCITS/AIFs"=Units of collective investment schemes
"Options/futures/swaps"=Options, futures, swaps
"Structured securities"=Structured products
"Money market securities"=Money market instruments
"Equities"=Equities
"Debt securities"=Debt securities
"Total excluding N/A (rhs)"=Total of all categories excluding N/A

Sources: ESMA complaints database.
Composite equity liquidity index

**Liquidity dry-up in March**

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.

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Composite sovereign bond liquidity index

**Liquidity dry-up in March**

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.

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Corporate bond liquidity

**Liquidity dry-up in March**

Note: Market illexil EUR Corporate bond index bid-ask spread, in %, computed as a one-month moving average of the iBoxx components in the current composition. 1Y-MA: one-year moving average of the bid-ask spread. Amihud illiquidity coefficient index between 0 and 1. Highest value indicates less liquidity.

Sources: Refinitiv Datastream, ESMA.

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Sovereign repo volumes

**Slight increase in volumes**

Note: Repo transaction volumes executed through CCPs in 7 sovereign EA repo markets (AT, BE, DE, FI, FR, IT and NL), EUR bn.

Sources: RepoFunds Rate, ESMA.

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Bond futures liquidity

**Liquidity dry-up in March**

Note: One-month moving averages of the Hui-Heubel illiquidity indicator for selected 10Y sovereign bond futures, in %.

Sources: Refinitiv Datastream, ESMA.

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Repo market specialness

**Spike in March, but still around usual levels**

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.
Risk categories

Market risk

R.34
Economic policy uncertainty
Surge in uncertainty

R.35
Financial instrument volatilities
Peaked above 100% for 1M VSTOXX

R.36
Exchange rates
Large depreciation for GBP and emerging

R.37
Exchange rate volatilities
Higher volatilities

Risk categories

Contagion risk

R.38

R.39

Note: Economic Policy Uncertainty Index (EPU), developed by Baker et al. (www.policyuncertainty.com), based on the frequency of articles in European newspapers that contain the following triple: “economic” or “economy”, “uncertain” or “uncertainty” and one or more policy-relevant terms. Global aggregation based on PPP-adjusted GDP weights. Implied volatility of EURO STOXX 50 (VSTOXX), monthly average, on the right-hand side.
Sources: Baker, Bloom, and Davis 2015; Refinitiv Datastream, ESMA.

Note: Implied volatilities for 3M options on exchange rates, in %. Y1-MA USD (resp. Y1-MA GBP) is the one-year moving average of the implied volatility for 3M options on EUR-USD (resp. EUR-GBP) exchange rate.
Sources: Refinitiv Eikon, ESMA.
Composite systemic stress indicator
At levels unseen since 2012

Sectoral equity indices correlation
Increased correlation as all sectors plunged

Equity market concentration
Increased concentration

Dispersion in sovereign yield correlation
Yield correlation close to 1 in March

Financial market interconnectedness
Slightly decreasing in 2019

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.

Note: Concentration of national value of equity trading by national indices computed as a 1M-MA of the Herfindahl-Hirschman Index, in %.

Note: Dispersion of correlations between 10Y DE Bunds and other EU27 countries' sovereign bond redemption yields over 60D rolling windows.

Note: Concentration of notional value of equity trading by national indices computed as a 1M-MA of the Herfindahl-Hirschman Index, as a %.

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

Sources: ECB, ESMA.
Risk categories

Credit risk

R.43
Sovereign risk premia
Peak in mid-March before ECB intervention

R.44
Sovereign CDS spreads
Higher spreads, especially in the EU

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

R.45
Corporate bond spreads
At multi-year highs

Note: ICE BofAML EA corporate bond option-adjusted spreads by rating, in bps. 5Y-MA=five-year moving average of all indices.
Sources: Refinitiv Datastream, ESMA.

R.46
Covered bond spreads
At multi-year highs

Note: Asset swap spreads based on iBoxx covered bond indices, in bps. SY-MA=five-year moving average of all bonds.
Sources: Refinitiv Datastream, ESMA.
Long term corporate debt outstanding

Increasing share of BBB and lower

Debt issuance growth

Higher CB and sovereign issuance

Net sovereign debt issuance

Net issuance positive in some countries

R.49

Net redemption profile

Increased short-term financing needs

Risk categories

Operational risk

R.51

R.52
Circuit-breaker trigger events by sector

Higher share of financials

Circuit-breaker trigger events by market capitalisation

Wide usage of circuit breakers

Trading volumes at all-time highs

Trading system capacity proxy

R.53

Trading volume

3M-MA Volume

Capacity (rhs)  All-time high (rhs)

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

Sources: Morningstar Real-Time Data, ESMA.