esma European Securities and Markets Authority

TRV Risk Update

ESMA Report on Trends, Risks and Vulnerabilities

June 2022

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ESMA Report on Trends, Risks and Vulnerabilities – Risk Update
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Risk dashboard

Overall ESMA remit

Risk categories

	Level	Outlook
Overall ESMA remit	○	→
Liquidity risks	○	→
Market risks	○	→
Credit risks	○	↗
Contagion risks	○	→
Operational risks	○	→
Environmental risks	○	↗

Risk drivers

	Outlook
– Geopolitical risks, esp. from Ukraine conflict	↗
– Macroeconomic environment	↗
– Inflation and Interest rate environment	↗
– Sovereign and private debt markets	↗
– Infrastructure disruptions	↗
– Other political and event risks	→

Securities markets

Risk status

Level: ○ Outlook: →

Drivers
- Deep uncertainty from Ukraine war, short-term risks of market volatility and market shifts
- Commodities adding to inflation; market re-evaluation risks from higher interest rates
- Reduced growth increasing already-high indebtedness from the pandemic, weakening public and private balance sheets
- COVID-19 residual uncertainty and ongoing impacts (e.g. from lockdowns in China)
- Massive volatility and losses in crypto markets

Asset management

Risk status

Level: ○ Outlook: →

Drivers
- Sharp deterioration in mid-term economic outlook, supply-side and inflation pressures set to reduce real portfolio returns
- Market volatility and potential default of Russian assets can impact performance, liquidity or flows of exposed funds
- Valuation issues, with risks of suspensions of redemptions for Russia-exposed funds
- Risk appetite shift could drive flows from riskier bond funds (corporate, emerging market)

Consumers

Risk status

Level: ○ Outlook: ↗

Drivers
- Increased market volatility and higher inflation increase short-term risks for consumers, esp. losses from negative real returns as inflation undermines returns
- Risks of aggressive marketing esp. higher-risk structured products and crypto assets
- Digitalisation and consumer proficiency in social-media-driven trading and copy trading
- High costs may be poorly disclosed; conflicts of interest related to payment for order flow

Infrastructures and services

Risk status

Level: ○ Outlook: ↗

Drivers
- Ongoing heightened short-term risk of cyber-attacks to infrastructures from Russia
- High market volatility raises short-term risks of margin breaches and trade disruptions
- Ongoing significant operational risk to infrastructures generally, including exposure from fast-rising digitalisation, the use of cloud services in core production processes
- Increased operational burden on CSDs related to Russia sanctions and from high number of corrections needed for the application of cash penalties under CSDR

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

Risk assessment

Risk summary

In our last TRV, published shortly before the Russian invasion of Ukraine,(1) we **highlighted the geopolitical risks** in the region. The invasion and subsequent political and economic developments have since profoundly impacted the risk environment of EU financial markets, we are therefore updating our risk assessment.(2)

As a result of the invasion and the policy responses, **funds and investors with Russian exposures** have faced substantial valuation issues. There has also been substantial asset repricing, with riskier assets falling in value (equities, corporate bonds, EM debt). Given Russia's and Ukraine's role in **global commodity supply**, prices of commodities and related derivatives jumped and have remained volatile. This increased margin calls for related derivatives. Margin calls can create liquidity strains which, given high concentration and interconnectedness, could lead to wider impacts.

Concurrently, **inflation pressures** from supply chain issues in the pandemic recovery have been compounded by the commodity supply shocks, leading to an inflation surge and widespread expectations that the long period of ultra-low interest rates is coming to an end. Even though markets are starting to price this in, **higher inflation is depressing real returns** which could lead investors to even higher risk-taking. In addition, an interest-rate reversal is likely to usher in a **far-reaching rebalancing of portfolios**.

Given these developments and the ongoing uncertainty, the **risk to ESMA's overall remit remains at its highest level**. Relative to our last TRV, contagion and operation risks are now considered very high, joining liquidity and market risks. Credit risk stays at high but is now expected to rise. Risks remain very high in securities markets and for asset management, as in our previous TRV. Infrastructures have shown resilience to the increased risks from the invasion (e.g. cyber risk, market volatility). Infrastructures risk is thus kept at high, but with an increasing outlook given the change in context. Consumer risks also remain high, but with an increasing outlook. Environmental risks remain elevated.

Market developments

Securities markets

- **Equities**: Volatility increased, though with limited falls in EU indices thus far (Chart 2).
- **Bonds**: Limited EU bond yield increases, Russian downgrades in corporates and sovereigns, with high default risk (Chart 5).
- **Commodities**: Very significant increases in energy, metal and food prices, with periods of extreme volatility (Textbox 1, Chart 3).
- **ESG**: EU emission allowance volatility jumped sharply, prices fell by 30% in a few days as natural gas prices hit all-time highs.
- **Crypto assets**: Unrelated to the invasion,(3) crypto assets have been under severe pressure since the late 2021 peak (Textbox 2) with provider business models and financial engineering coming under greater scrutiny by markets and authorities.

Asset management

- Significant **outflows were seen for funds with Russian exposures** after the invasion, driven mainly by valuation issues related to these exposures, with greater outflows for more exposed funds. Flows stabilised since April (Chart 4). From the end of February into March, around 100 EU funds in 17 countries suspended dealings: 88 UCITS (EUR 5.5bn in NAV), 35 AIFs (EUR 4.7bn). As of June 2, side pockets had been used as liquidity management tools by 4 funds since the invasion (1 MMF, 3 AIFs) across 3 countries.(4) However, funds with material

(1) ESMA, *Trends, Risks and Vulnerability Risk Monitor No. 1, 2022*, February 2022.

(2) This update complements our regular TRV Risk monitor. The next TRV covering 1H22 will be published as planned in September 2022.

(3) The EU clarified that crypto assets are covered under the relevant provisions in its sanctions. See European Commission, *Frequently asked questions on crypto-assets concerning sanctions adopted following Russia's military aggression against Ukraine*, April 2022.

(4) ESMA issued a *Public Statement* to promote convergence in relation to actions taken to manage the impact of the Russian invasion of Ukraine on investment fund portfolios exposed to Russian, Belarusian and Ukrainian assets, including cases where the use of

Russian exposures before the invasion account for a very small share of the EU fund population.

Textbox 1

Rising commodity market risks

Some key commody markets have been impacted by the Russian invasion and sanctions, leading to price surges and extreme market volatility. In early March spot and future prices in certain markets (oil, gas, nickel and wheat) reached multiples of recent averages and volatilities exceeded those of the Covid-19 related stress in March 2020.

Such exceptional market movements create short-term risks on financial markets: Margins calls on derivatives related to these commodities can create liquidity strains for counterparties.

Some of these short-term risks have begun to crystalise, with calls for emergency liquidity assistance for energy traders and the London Metal Exchange suspending nickel trading for five trading days in early March. Market participants have also reacted to the increased risk by reducing exposures to energy derivatives markets.

However, concentration risks remain where few market participant(s) hold sizeable short positions. Failure to make margin payments by short-position holders could in turn transmit risks to holders of long positions in over-the-counter (OTC) trades or to CCPs in exchange-traded derivatives (ETDs) through the impact on clearing members. There is also high concentration of EU ETD trading for both energy and agricultural products in a few exchanges, and in a few market players within exchanges, so while risks may be limited by trading being pooled in larger exchanges, disruption in these would have wider impacts.

Longer-term risks have also increased. The commodity price increases exert pressure on producer prices and margins. Higher uncertainty in commodity markets impacts investment and demand. Both dampen growth, while at the same time, commodity-related inflationary pressures are in the process of rising significantly.

Clearly, total commodity derivatives markets in the EU are of limited size relative to EU derivative markets as a whole. The gross notional outstanding of commodity derivatives amounted to EUR 2.8bn as of 27 April 2022 i.e. only about 1% of the total EU derivatives outstanding notional amount. However, commodity derivative markets create sensitive interlinkages between commodity producing or processing companies, commodity traders, banks acting as intermediaries in the clearing process, central counterparties, and other financial institutions. Given this interconnectedness, the prospect of further spot-market distress from the Russian war and the risks identified above, potential first and second round impacts related to commodity markets must be taken very seriously by both market participants and supervisory authorities alike.

Consumers

- **Surging inflation** has started to undermine real asset returns, with the risk that investors seek to compensate losses by taking higher financial risks.
- **Jumps in market volatility** affect portfolio values. Crypto-asset volatility could harm consumers, as detailed in our warning, published jointly by the ESAs.[5]

Infrastructures and services

- **Index providers:** Russian bonds and equities have been excluded from indices due to a lack of liquidity and their being uninvestable.
- **CRAs**: The EU has banned the rating of Russian debt and the provision of rating services to Russian clients.
- **Derivatives and CCPs:** Commodity margins increased significantly (Chart 5) leading to a high number of intraday margin calls. Nickel trading on the London Metal Exchange (LME) was suspended, starting on March 8 for 5 trading days, with trade cancellations performed at the closure and after re-opening of the market.[6] EU exposures to Russian CDS fell materially to EUR 4.5bn, with exposures mainly in banks and to sovereign CDS. EEA30 derivative exposures to Russian counterparties are very limited, decreasing since early March.

Textbox 2

Crypto-asset turbulence

Markets in crypto assets experienced significant volatility and falls in value, with key protocols such as Bitcoin and Ethereum losing half their value since November 2021.

More dramatically, in May the algorithmic stablecoin[7] TerraUSD (UST) lost its peg to the US dollar after a run that triggered a wider collapse of the underlying EUR 16 bn Decentralised Finance (DeFi) money market protocol known as Anchor (Chart 1), which operates on the Terra blockchain. This exposed a failure of the algorithmic arbitrage mechanism Terra designed to keep UST in balance with its collateral token, Luna (the native token of the Terra blockchain).

The collapse illustrates the acuteness of confidence effects for stablecoins in the absence of robust enough stabilisation mechanisms. Though this incident is different from a typical bank run, due to the technical aspects of the pegging mechanism, the psychological aspects are very similar.

It also shows contagion is a real risk. The run briefly spread to Tether (USDT)—the largest stablecoin with a market cap of EUR 76 bn—which is 100% reserve backed in short-term fiat assets. Despite its reserve backing, Tether temporarily broke

liquidity management tools (LMTs), specifically side pockets, may be warranted.

(5) ESA 2022 15, *Joint ESA warning on crypto assets*.

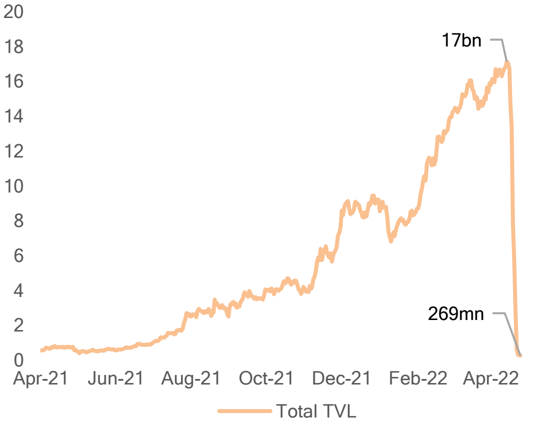
(6) During the market closure, positions and prices on LME were not updated and there were no margin calls. LME also experienced several technical issues after the market re-opened.

(7) Algorithmic stablecoins differ from their fiat-reserve-backed counterparts by supporting the fiat peg through open market operations (akin to a central bank defending an exchange rate) instead of using short-term money market instruments (cash, CDs, commercial paper) to cover stablecoin minting (assets) and redemption (liabilities). Terra is a blockchain created by a Korea-based team led by CEO Do Kwon. The largest DeFi

it's peg on 12 May, reaching a low of USD 0.93. Tether has since re-established its peg.

Thus far, the turmoil in the market for crypto assets has not had significant spill-over effects into traditional markets. The failure of the Terra ecosystem serves as test case for the risk transmission hypothesis. In the course of one week, EUR 16bn in value was lost in the Anchor protocol which consequently dragged down the overall crypto-market cap. Considering losses of this size, as well as the spread and growth of interlinkages within the crypto universe and with conventional financial markets, spill-overs will become more likely in future, as will implications for financial stability.

Chart 1
Total value locked (TVL) in Anchor protocol
Anchor TVL falls by 84% in one week



Note: Anchor total value locked since Apr-21 (in USD bn). As of 16 May 2022
Sources: DeFi Llama, ESMA

The turbulence also shows the importance of the recently published ESAs joint warning on crypto assets.[8] This warning reminds consumers of the highly volatile and speculative nature of crypto markets. The ESAs noted the risks of aggressive promotion of crypto assets to the public, including through social media and influencers as well as the growing complexity of products and services offered to retail investors (e.g., staking, derivatives, leveraged 'yield farming').

Risk outlook

In the short term, **political event risk remains** very high and a key risk driver. Since the invasion, the frequency and intensity of shock events has risen, with potential for further unanticipated developments. This highlights an ongoing need for robust risk management on the part of market participants.

Shock events could **further increase market, credit and liquidity** risks in the near term. There are risks of **further redemption suspensions or liquidation of funds**, particularly in funds exposed to volatile assets or derivatives. Market volatility could drive risks of short squeezes, margin calls and breaches at CCPs. Russian defaults could have unanticipated impacts, e.g., ambiguities on whether a default has occurred could impact CDS markets.

Cyber risk is very high currently and a key concern for financial markets. Attacks targeting infrastructures and firms could be very disruptive.

In the medium term, the commodity price surges will add to **additional upward pressures on prices**. Economic activity is set to be hit significantly, as reflected in lower GDP forecasts for 2022, especially in the euro area (Chart 7).

Given this, economic shifts will likely contribute to **financial market risks**:

- Inflation pressures are expected to usher in an era of higher rates, with potential for rebalancing of portfolios.
- Lower growth will come with lower profitability for firms.
- A weaker economy and direct costs of the conflict will further increase public and private indebtedness.
- Rising interest rates and public and corporate indebtedness could lead to higher refinancing costs and credit risks.

In the longer term, there are **signs of potential structural changes**:

- Higher inflation (Chart 7) from the commodity supply shocks and a more depressed outlook increases the likelihood of a stagflation scenario.
- Energy availability and commodity issues could impact valuations, volatilities and functioning in these markets and also affect the speed of transition to a green economy.
- There are wider global risks, including to emerging economies of a supply squeeze on key commodities, including food supply.
- With the war, divestment risks have risen sharply in many areas and real economy impacts are set to make investment conditions less certain and less profitable.
- Separate from the invasion, crypto asset markets will likely remain under stress as fragilities in business models and financial engineering surface.

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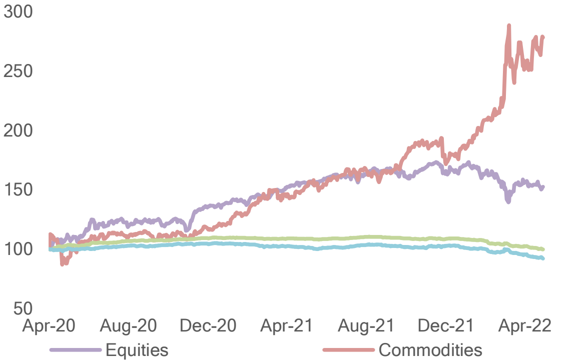
application on the blockchain is Anchor protocol, a money market that offers depositors a fixed 20% Annual Percentage Yield. Anchor offered such an attractive interest rate through a complex system of depositor incentives and a liquidity backstop known as Luna Foundation Guard (LFG), which had stockpiled a Bitcoin reserve worth USD 2.4 billion by April 2022. However, on 10 May, the LFG fund was completely depleted after CEO Kwon had attempted to repeg UST. For more details on Anchor, see *DeFi Llama*.

(8) ESA 2022 15, *Joint ESA warning on crypto assets.*

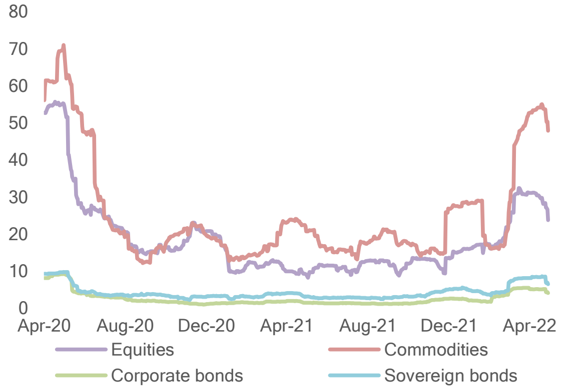
Key indicators

Chart 2
Market performance
Sharp increase in commodity prices



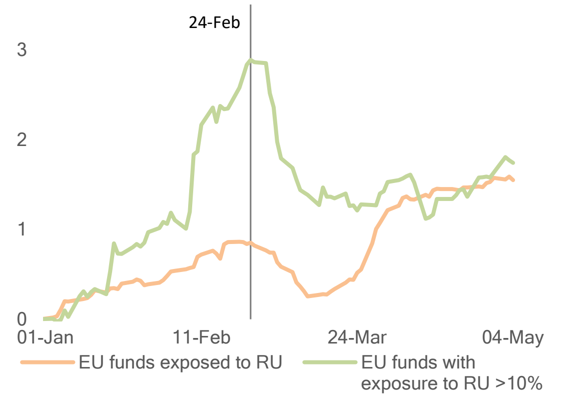
Note: Return indices on EA equities (Datastream regional index), global commodities (S&P GSCI) converted to EUR, EA corporate and sovereign bonds (iBoxx EUR, all maturities). 01/04/2020=100.

Chart 3
Market volatilities
Sharp increase for commodities and equities



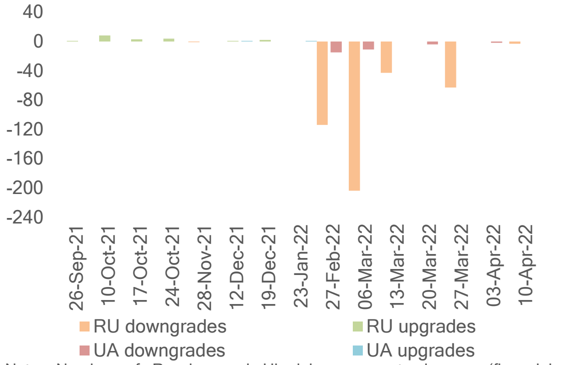
Note: Annualised 40D volatility of return indices on EA equities (Datastream regional index), global commodities (S&P GSCI) converted to EUR, EA corporate and sovereign bonds (iBoxx EUR, all maturities), in %.

Chart 4
Asset management
Initial strong outflows of funds with RU exposures



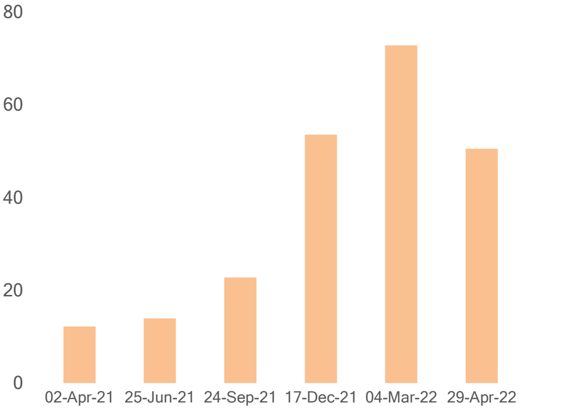
Note: Cumulative flows of funds exposed to Russia, in % of total assets. Funds with large exposures are funds with exposures above 10% ot total assets.
Sources: Morningstar, ESMA.

Chart 5
Corporate downgrades and upgrades
Russian and Ukrainian downgrades spike



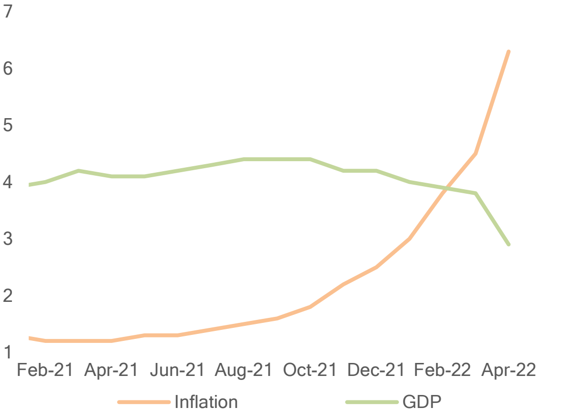
Note: Number of Russian and Ukrainian corporate issuers (financial, insurance and non-financial) with at least one long-term rating upgraded or downgraded from 5 largest EU-registered CRAs (Fitch, Moody's, S&P, DBRS, Scope). Weekly timeseries (cut off date 16 April 2022). Includes withdrawn Russian ratings. These were later withdrawn by CRAs after the EU ban on rating Russian debt and on the provision of rating services to Russian clients.
Sources: ESMA, RADAR

Chart 6
Commodity derivatives margins
Sharp increase in margins after invasion



Note: : Outstanding amounts of margins (initial + variation margins) by EU27 CCPs for commodity derivatives. in EUR bn.
Source: TRs, ESMA

Chart 7
Inflation and GDP forecasts
Higher inflation, lower GDP growth expected



Note: Median GDP growth and inflation forecasts for the euro area for 2022, by vintage month, in %.
Sources: Refinitiv EIKON, ESMA.

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