

# Evolving key risks in the banking sector, and related priorities for the SSM

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*Supporting Banking Union scrutiny*

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## **Abstract**

This paper points to new multifaceted and often interconnected sources of risks (including high-impact tail risks) and the challenges posed to supervisory actions. It also makes the important case that traditional risk management tools might face limitations in the current situation. We discuss both geopolitical and related risks as well as other risks in the context of rising interest rates and a volatile macroeconomic environment. The challenge for banks will be to be prepared for such extreme scenarios. New approaches to risk management are needed, combining quantitative and qualitative assessment. Banks' strategic plans need to be set towards long-term objectives, but also have to be flexible enough to allow for the possibilities of tail risks. In terms of supervisory actions, these considerations call for a very-bank specific monitoring approach.

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## LIST OF ABBREVIATIONS

<b>ECB</b>	European Central Bank
<b>EU</b>	European Union
<b>GDP</b>	Gross Domestic Product
<b>IMF</b>	International Monetary Fund
<b>NGFS</b>	Network for Greening the Financial System
<b>NPLs</b>	Non-Performing Loans
<b>SSM</b>	Single Supervisory Mechanism
<b>UK</b>	United Kingdom
<b>US</b>	United States of America

## EXECUTIVE SUMMARY

The world is going through a period of poly-crisis, experiencing several shocks at the same time and with an extremely high degree of uncertainty. In this short note, we point to a few new sources of risks, challenges posed to supervisory actions, but also make the important case that traditional risk management tools might face limitations in the current situation.

First, there are significant geopolitical and related risks, including (i) credit risk and effects on corporate and consumer lending business, (ii) market risks and effects on trading, (iii) fiscal policy support result resulting in sovereign debt increases and a renewed doom loop between bank and sovereign fragility, (iv) climate risk including the risk of backtracking on commitments with stranded asset risks materialising even more strongly later, (v) risk of cyber-attacks against financial institutions and critical infrastructure, (vi) geopolitical tensions beyond Ukraine and consequent negative effects on international trade and economic recovery. Beyond these geopolitical risks, there are (i) the risk of financial market disruptions related to increasing interest rates and imbalances in asset holding, (ii) spill-over effects from fragility in the crypto-market, and (iii) risks arising from financial sanctions against Russia.

These multiple risks pose new challenges for banks' risk management and consequently for bank supervisors. New approaches to risk management are needed, combining quantitative and qualitative assessment. Scenario analysis seems to be a more effective way to address tail risks that are multifaceted in nature.

In terms of supervisory actions, these considerations call for a very bank-specific monitoring approach. Banks should act prudently in light of the potential future economic deterioration. Experience from the past few years has shown the important role of the government as insurer of last resort against extreme tail risks (e.g., Covid, energy price hike). The challenge for banks (and thus, for supervisors) will be to be prepared for such tail-risk scenarios, for example in the form of back-up solutions in the case of cyber-attacks. Strategic plans that set a course towards banks' long-term objectives also have to be adjusted to allow for the possibilities of tail risks.

## 1. INTRODUCTION

The world is going through a period of poly-crisis, experiencing several shocks at the same time and with an extremely high degree of uncertainty. First, the pandemic has resulted in supply chain and global trade disruptions and has contributed to rising inflation. Second, the Russian invasion of Ukraine and the consequent increase in geopolitical tensions has a dampening effect on consumer and corporate confidence. Third, high and volatile energy prices have contributed to inflationary pressures and the risk of a global recession. More generally, the Great Moderation may give way to the Great Volatility (Schnabel, 2022).

Monetary policy authorities across the globe face an important trade-off, between fighting inflationary pressures with tighter monetary policy and the risk of a recession implying a cautious approach towards tightening as well as addressing financial market disruptions through open-market interventions expanding central banks' balance sheets. The ECB Governing Council has moved away from forward guidance and has signalled that decisions are to be taken meeting by meeting given the rapidly changing macroeconomic and political environment. The high volatility and uncertainty have also implications for banks and consequently for supervisors. The European banking system has weathered the pandemic reasonably well, supported by strengthened capital buffers (in turn result of regulatory reforms of the past decade) and government support programmes for firms and households. However, the past 12 months have brought new sources of risk (geopolitical and economic) and have heightened existing risks (e.g., cyber-attacks). And these risks are on the backdrop of continuous challenges from digitalisation and climate change.

The most positive note in this challenging environment is the recent performance of European banks and the return to rising profitability with the increase in interest rates. Yet, as the SSM Chair recently noted, the improved performance may contribute to "a certain reluctance on the part of banks to seriously engage in supervisory discussions on the downside risks underlying the macroeconomic and financial outlook" (Enria, 2022).

In this short note, we point to a few new sources of risks, challenges posed to supervisory actions, but also make the important case that traditional risk management tools might face limitations in the current situation.



## 2. EVOLVING RISKS IN THE BANKING

In September the European Systemic Risk Board issued a general warning on vulnerabilities in the European financial system. That Warning points to an increased “probability of a materialisation of tail-risk scenarios”, due to (i) increased stress for households and corporations from increasing energy prices, (ii) possibility of sharp asset price falls, and (iii) declining asset quality on banks’ balance sheets. The Warning also points to financial stability risks beyond banking in non-bank financial institutions and market-based finance. One important element stressed by the Warning is that there are several independent risks that – if they materialise – can interact with each other amplify their impact.

In the following, we will discuss several sources of risks and the way they may be interconnected; we will differentiate between sources of risk emerging (either directly or indirectly) from the Russia-Ukraine conflict and unrelated risk events. The list is not exhaustive.

### 2.1. Geopolitical risk and other related risks

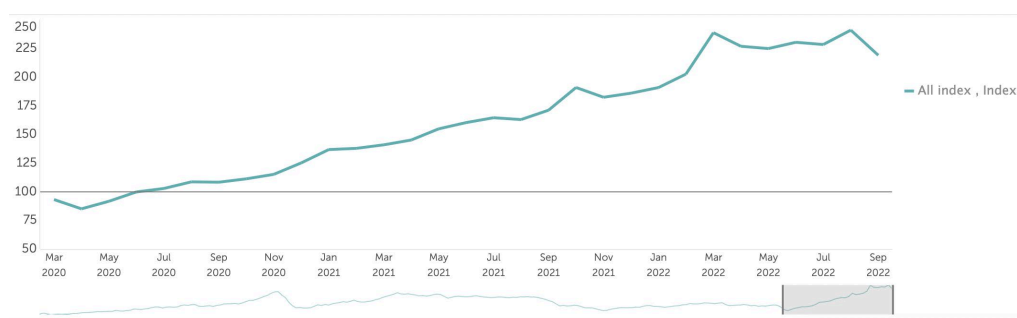
The risk that the Russia-Ukraine conflict could turn into a global war, a certainly devastating event, appears at the moment contained. There are, in fact, symptoms of a reduced risk of escalation in the Russia-Ukraine conflict, as the prudent US reaction to the recent explosion in Poland near the border with Ukraine suggests. Still, the exit path remains highly uncertain. Likewise, the actual repercussions of geopolitical tensions on banks remain unclear. We try below to highlight the potential effects on bank balance sheets.

#### 2.1.1. Credit risk and effects on corporate and consumer lending business

As well known, the Russian-Ukrainian war and the subsequent sanctions have led to spiralling increases in energy costs and supply chain disruptions, thus contributing to global inflation. Trade and energy price shocks have been generating stress for households and corporations. Russia and Ukraine are also two of the largest agricultural exporters, which has led to severe commodity price spikes. Banks more exposed to more vulnerable households and sectors (from energy suppliers to crop and animal production) will presumably experience increased credit risk in the form of higher NPLs. This could affect corporate and consumer lending businesses. Consumer lending and mortgage loans can be both affected as higher energy and commodity prices, in a context of increasing interest rates, reduce disposable income and thus the capacity to serve loans, especially for lower income and over-indebted households.

#### 2.1.2. Market risk and effects on trading

Commodity prices have not only increased but have also been very volatile over the past months (Figure 1). In addition to balance sheet exposure to firms affected by this volatility, financial institutions are also exposed to this volatility through financial markets, including through derivative holdings. Rapidly moving commodity prices can result in margin calls for financial institutions, depending on how much liquidity support banks that are clearing members of energy derivatives decide to extend to energy suppliers and energy-related commodity traders. This can also increase counterparty risk.

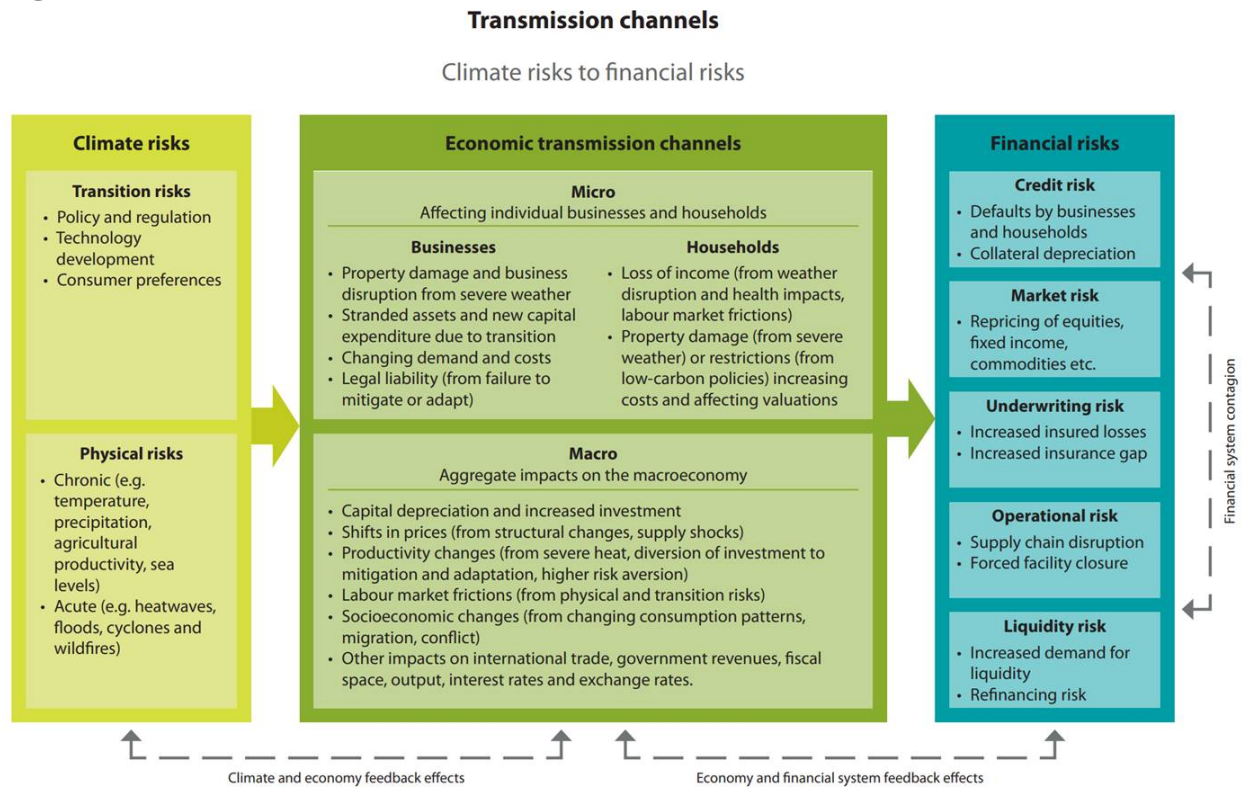
**Figure 1:** Commodity Price Index

Source: IMF Data. All Commodity Price Index, including both fuel and non-fuel commodities

### 2.1.3. Sovereign risk and the doom-loop

One complicating factor is that different governments have adopted support programmes for households and firms or are in the process of doing so. There is a large variation in these support programmes, which in turn translates into different risks on banks' balance sheets. On the one hand, government support can help make households and companies more resilient and, thus, indirectly mitigate credit risk for banks. On the other hand, it will further deteriorate governments' fiscal positions, which may enhance sovereign risk and reignite the doom-loop between sovereign and banking risks. In fact, since the euro sovereign crisis, the sovereign-bank nexus and, in turn, the risk of intertwined crises have declined in several euro area countries. More recently, however, the exposures between governments and their banking systems have increased again due to the fiscal measures introduced to support the economy, especially in countries most exposed to Covid-19. Total sovereign exposure of banks in the euro area currently amounts to 9% of total assets, with large cross-country discrepancies (Mai, 2021). Among the largest countries, banks in Italy hold the most domestic sovereign debt relative to capital (194%), followed by Spain (105%), Germany (67%), France (60%) and the Netherlands (46%). As for the home bias, French and Italian banks strongly prefer domestic debt, which accounts for over 90% of their total euro-area exposure. In Spain, the home bias is 82%, in Germany 74% and in the Netherlands only 59%. Independently from direct exposures, an increase in public debt may affect domestic banks also via indirect channels, e.g., by making funding more expensive in banks located in more indebted countries (Lozano Guerriero et al., 2020).

**Figure 2:** From Climate to financial risks



Source: NGFS. Climate Scenarios for central banks and supervisors, June 2021

#### 2.1.4. Climate risk

Against this backdrop of extraordinary pressures on countries' economies and consumers, the all-out search for alternatives to Russian energy induces changes in climate risk policies. On the one hand, the crisis can speed up the transition to greener economy with the faster discovery of alternative energy sources. On the other hand, it may set the EU and the world further back in the fight against the climate emergency as new investments in fossil fuels are increasing. Backtracking on commitments made by governments concerning the transition to net zero is another factor that can have repercussions on banks. Many financial institutions are already heavily exposed to carbon-intensive industries and borrowers. Any new exposure to such industries due to the energy crisis and its repercussions on bank balance sheets (see Figure 2) need to be monitored carefully.<sup>1</sup>

#### 2.1.5. Cyber risk

The geopolitical tensions between Europe and Russia, related to the Russian invasion of Ukraine, have increased the probability of large cyber-attacks, including on financial institutions. While this has not happened yet, the risks are not negligible. In addition to direct cyber-attacks on financial institutions, there is an indirect exposure of financial institutions by relying on cloud providers or other outsourced IT providers that might be subject to such attacks or other operational risks. Beyond the immediate concerns related to the current geopolitical situation, the increasing dependence of banks and non-bank financial institutions on such providers raises important concerns for operational risk.

<sup>1</sup> For a more in-depth discussion on banks' exposures, see Beyene et al. (2022).

### 2.1.6. Geopolitical tensions beyond Russia and Ukraine

The Russian-Ukrainian war has undermined the ability of world leaders to come together and address global challenges. It has exacerbated the East-West polarization and reignited long-dormant tensions, as for example with the crisis over Taiwan that is likely to change the US-China relationship for the worse. One important tail risk is a deterioration of the conflict around Taiwan, with a possible catastrophic direct confrontation between the US and China. Beyond such tail risk scenarios, geopolitical tensions can result in reduced trade flows, with firms relying heavily on exports and specific export- and import-intensive sectors being negatively affected; this in turn can translate into credit risk on banks' balance sheets.

This polarization is also playing out in Africa with the pressure on African countries to align with one side or the other. In this last respect, the European Union's decision to phase out Russian energy has increased interest in importing gas from Nigeria, Angola, and Senegal. Individual European countries have also been pursuing their own energy policy with other African countries, a strategy that entails greater exposure towards regions of the world hit by tensions and instability. New forms of geopolitical risks can arise.

## 2.2. Other (not war-related) sources of market turbulence

### 2.2.1. Recent dysfunction in the gilt market (October 2022)

The recent financial market turbulence in the UK sends a strong warning signal. In the case of the UK, political commitments to unfunded tax cuts led to a sell-off of government bonds (gilts). The pension fund industry exposed to volatility in the bond market through liability-driven investment strategies (using swaps and repo transactions) faced increasing margin calls, which pension funds tried to satisfy through sale of government bonds. This increased price pressures further and threatened the solvency position of the same pension funds. As a response, the Bank of England had to intervene in the bond market, stabilising the gilts price.

While the circumstances were specific to the UK political situation, similar market disturbances cannot be excluded in the euro area, especially in the case of dramatic changes in sovereign bond prices.

### 2.2.2. Leveraged lending

While bank leverage has decreased in recent decades, the indebtedness of governments, households and corporates increased, so there must be an increase in leverage in the non-bank financial sector that has filled the gap. The risk is that such leverage is not immediately visible but could materialize on banks' balance sheets if these are connected with the highly leveraged entities in the financial systems that are exposed to underlying risk factors such as house prices, interest rates, currencies, and alike. It follows that leverage can act as an amplification factor, leading in a stress situation to a spike in the demand for liquidity together with a decrease in the supply.

### 2.2.3. Digital asset market turbulence (November 2022)

The recent collapse of one among one of the largest cryptocurrency exchange – FTX – raises attention on the potential direct and indirect effects on banks and financial markets of less-regulated segments of the market, as the case of cryptocurrency. As long as direct linkages between the traditional and the decentralised financial systems are limited, there might be no immediate concerns. Careful monitoring of such interlinkages (e.g., exposures of banks and non-bank financial institutions to crypto assets or entities holding such assets) by regulatory and supervisory authorities, however, is called for. In

addition, there might be possible spillover effects if households or corporations finance cryptoasset holdings with bank loans, resulting in credit risk in case of losses, or reshuffle their asset portfolio, with knock-on effects on traditional financial markets banks are also exposed to. The immediate reaction to the failure of FTX reduces such concerns; however, continuous careful monitoring and the collection of relevant data is called for.

#### 2.2.4. Financial sanctions

Another emerging risk related to the numerous sanctions introduced in response to the Russian invasion. Differently from previous occasions (e.g., war in Crimea), sanctions are applied by multiple jurisdictions with discrepancies in terms of both coverage and language. This leads on the one hand to increased compliance and thus operational risk due to an erroneous observations of the rules contained in the sanctions, and on the other to potential disruptions in particular in the payment systems due to delayed or erroneous blocks of payments.

### 3. ADDRESSING THE RISKS: TOWARD A NEW RISK MANAGEMENT PERSPECTIVE?

The potential effects on banks of the above mentioned macro-developments and resulting risks are likely to be numerous but heterogeneous, depending on specific portfolios, business lines, business models, and geographies.

Industries more exposed to energy needs will suffer greater losses, increasing credit risk for banks more exposed to those industries. Banks more engaged in trading commodities derivatives or more linked to those traders will either encounter losses or increased liquidity needs due to volatile margin requirements, as well as increased counterparty risk. Challenges to climate transition triggered by the Russian invasion are likely to be transmitted to bank balance sheets by turning into traditional financial risks, in a magnitude that, once again, depends on bank specific characteristics and geographic location.

Monetary tightening, while it is now generating profits due to increased interest rates for several banks, may turn to be detrimental in case a recession materialises, especially for banks operating in weaker economies with also more limited fiscal support. Also, it may give rise to tensions in banks' asset liability management (ALM) and may generate losses depending on the specific ALM strategies banks have adopted in recent years and the potential future competition for deposits.

As for the "nature" of risks banks will be facing in the near future, the recent events, from the pandemic to the Russia-Ukraine conflict, suggest that.

- Banks will be threatened by various risk types, often interconnected. Some of them may take the form of tail risks, i.e., very unlikely-very high impact events. This includes the case of truly devastating effects, such as in the case of a global or nuclear war. Other risk types, if in principle can take long to get manifested, can have an acceleration in their occurrence (e.g., climate change risk).
- Measuring banks' exposure to such risk is hard task and current risk modelling is likely to be a blunt tool. Banks have in place risk management tools that include models to assess the impact of different shocks. Such models rely on historical data and thus shocks being comparable in nature if not in size to previous shocks. However, the current risks are novel and might also interact in ways that cannot be easily captured by existing models. One specific area where models cannot be properly used, for instance, is IFRS 9, given the lack of sufficiently long time-series to model loan classification and provisioning needs. Similarly, internal models use time series generated in times of low interest rates and thus are unable to measure risks connected to a fast raising inflationary environment.

- New approaches to risk management are probably needed, combining quantitative and qualitative assessment. First, the type of shocks the economy is facing calls for more granular and more forward looking analysis of borrowers' creditworthiness than in the past, similarly to what already happened during the pandemic. Second, an alternative to risk models can be scenario analyses that focus on the materialisation of specific risks and include the preparation of potential responses, e.g., in the case of a cyber-attack. Scenario analysis seems to be a more effective way to address tail risks that are multifaceted in nature.
- The sources of risk and the way they get interconnected seems to be highly bank specific. From the banks' viewpoint, this entails an accurate assessment of how each source of risk can reverberate on its balance sheet in light of, e.g., the prevalent lines of business and the bank exposure to vulnerable industries and geographies. This might also require a rebalancing in the bottom-up stress test approach with top-down constraints imposed by supervisors.<sup>2</sup>

The challenge for banks (and thus for supervisors) will be to be prepared for tail risk scenarios, for example in the form of back-up solutions in the case of cyber-attacks or gas embargo. Strategic plans need to have long-term objectives but at the same time they need the flexibility to be adjusted to allow for the possibilities of tail risks. In addition, banks should maintain their role in supporting the economy and help both households and corporates to withstand the economic turbulence.

## 4. CONCLUSIONS

This paper discusses a number of evolving key risks in the European banking sector and the implications for regulators and supervisors. We point to several interrelated risks, including geopolitical tensions, energy price inflation and cyber-risks but also financial market risks resulting from tightening monetary policy and fiscal support packages.

Importantly, we make the point that traditional risk management tools might not suffice to adequately plan and provision for such tail risk scenarios, given the lack of similar events in recent history and the lack of sufficient time series to model such events under new regulatory regimes. Similarly, raising undifferentiated pillar 1 capital buffers might not be the appropriate answer. Rather, scenario planning (possibly jointly by banks and supervisors) might be a better approach for some of the extreme tail-risk scenarios and their possible interactions.

In terms of supervisory actions, these considerations call for a very-bank specific monitoring approach. Banks and supervisors should engage in constructive dialogue in order to understand bank specific current and future resilience. Currently, banks seem to have proper capital buffers in Europe, albeit with some differentiation across the individual institutions. Clearly, these have to be monitored closely, also in a forward looking manner with a proper analysis of capital trajectories. Together with this, banks should act prudently in light of the potential future economic deterioration with proper provisioning policies.

To this end, banks and supervisors need to strike the right balance between prudence and market confidence. While being prudent, banks must remain competitive and be able to attract investors also via appropriate distributions based on accurate and granular risk and capital analysis.

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<sup>2</sup> See discussion in Enria (2019).

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