Fifth Annual Joint Conference of the Deutsche Bundesbank, European Central Bank and Federal Reserve Bank of Chicago on CCP Risk Management

Frankfurt am Main, 22 June 2023

Summary of proceedings

Introduction

On 22 June 2023, the European Central Bank (ECB) hosted the Fifth Annual Joint Conference of the Deutsche Bundesbank, the ECB and the Federal Reserve Bank of Chicago on CCP Risk Management in Frankfurt. This year's conference was the first physical conference after the coronavirus (COVID-19) pandemic. The event, by invitation only and held under the Chatham House Rule, brought together participants from the industry, regulatory bodies and academia. The full programme is available on the ECB's website.

Keynote fireside chat

The conference opened with a fireside chat moderated by the Federal Reserve Bank of Chicago and an exchange of views on the three themes of the conference.

On the theme of the first panel, the speakers provided their perspectives regarding the impact of technological environments on the derivatives markets regulated by the Commodity Futures Trading Commission (CFTC). The use of third-party service providers leads to financial markets, including central counterparties (CCPs), being critically dependent on such entities. Owing to the market structure and, in particular, the high concentration of such providers, disruption to their service provision could create significant challenges in the financial sector, as shown by the recent ransomware attack on the technology company ION. Currently, third-party service providers are not strongly regulated, and there is little visibility with respect to their activities and operational risk management. Therefore, the speakers advocated for greater transparency and revealed that the CFTC is exploring how to best address the aforementioned dependencies, including through updating existing requirements and best practices.

Turning to the topic of energy markets, it was pointed out that US CCPs reacted as expected during the recent periods of high market volatility, applying their risk management toolkit to increase margins. An increase in collateralisation in line with increased market volatility can be expected, be it triggered by geopolitical developments or extreme weather events. Overall, US markets coped well with the recent stress episodes. However, in view of potential future stress situations, it is good to draw lessons and learn from past events. These recent periods showed that price developments in derivative and cash markets can be intertwined. Furthermore, prices in physically-settled markets are influenced by factors linked to the supply and demand-side dynamics of the specific underlying, such as metals. Hence, as suggested by the speakers, it is crucial to understand those dynamics and increase transparency in cash markets.

The fireside chat closed with a question on CCP governance and crypto-assets, especially from the perspective of central clearing. Emphasis was placed on the importance of the recently-adopted CFTC rule that requires derivatives clearing organisations (DCOs) to establish risk management committees. Speakers also mentioned that the emergence of crypto-assets in the (derivative) clearing space raises multiple questions, including questions about regulation and supervision. Irrespective of whether the clearing set-up entails intermediation or not, the principle of “same risk, same rules” should apply. This also covers adequate customer protection. It was concluded that each jurisdiction could explore how to set up its regulatory approach in line with the aforementioned principle, like the EU did with the adoption of the Markets in Crypto-Assets (MiCA) Regulation.

Session 1: Central clearing in a new technology environment

The first panel focused on central clearing in the context of new emerging technologies. The session was moderated by the ECB.

To kickstart the session, panellists shared their views on the state of play of new technologies and how these could affect central clearing risk management and operations. All the speakers noted that new technological developments have been transforming the industry for years. Technology can make processes faster and more efficient, but the transformation takes time. With every new technology, there are obvious benefits. For example, cloud technology can be seen as a resilience tool and artificial intelligence can be used for forecasting and predicting risks. The speakers then discussed the contributions of cloud technology, distributed ledger technology (DLT) and artificial intelligence. As regards the cloud, it was remarked that this technology is not novel but has gained traction only recently. As regards DLT, it was noted that this may be more relevant for custody and settlement functions, and less so for central clearing or payment systems. The benefits of DLT may not be obvious today but may develop over the coming years. This technology needs confidence and credibility before its full potential

can be explored. It was agreed that both the industry and regulators need to be vigilant and observe developments closely.

The discussion then focused on the risk aspect of new technologies. Several panellists noted that many novel technologies are provided by third-party service providers. These providers are highly specialised and better able to keep up with current developments than large financial market infrastructures (FMIs) could do in-house. Hence, overall, they enhance the resilience of these FMIs. There are, however, only a handful of providers in the market, especially for cloud services, which could become a source of concentration risk. Speakers expressed a need for more regulatory oversight over cloud service providers. Regulatory frameworks like the Digital Operational Resilience Act (DORA) in the EU provide a good basis for more oversight and cross-jurisdictional cooperation. This would increase market confidence in cloud services. In response, one regulator elaborated on its approach to assessing the operational resilience of FMIs. This outcome-based approach looks at overall resilience without prescribing a certain technology. Emphasis was placed on international cooperation among regulators becoming crucial as very large FMIs with cross-border activities are increasingly relying on cross-border service providers. In addition, several functions relevant to operational resilience are often centralised in cross-border group structures for efficiency reasons. Another speaker referred to a risk it sees for FMIs of not being able to attract qualified staff. Well-qualified engineers are crucial to leverage the benefits of new technologies but also to manage the related risks, acting as the first line of defence when it comes to cyber resilience. Finally, it was noted that technological developments come not only with operational risks, including ICT risks, but may also give rise to changes in clearing and settlement operations that could affect traditional financial risk. For instance, increased automation and shortened settlement cycles could have an impact on liquidity risk, and legal risk may arise where current regulation does not adequately capture new technologies.

The panel then turned its attention to discussing sustainability aspects of new technologies. One speaker explained that cloud computing can help in scaling down old data centres that have a high carbon usage. Outsourcing to providers that use more efficient hardware also contributes to meeting carbon neutrality objectives. Finally, it was noted that software can also be coded in a more efficient manner, which would consume less computing power. Another speaker commented that some exchange groups run very specialised data centres that use a lot of power and produce heat. Some exchanges have therefore decided to power these data centres with renewables and to reuse the heat.

To wrap up the discussion, panellists were asked what they consider to be the main technological driving forces and where they see clearing operations headed in the future. One speaker responded that clearing processes do not change fundamentally, so the focus will be on cyber resilience. Technology will enable risk managers to do more analysis and more stress tests in a quicker manner. Another speaker noted that a lot of changes being observed are due to a changing market structure and not

necessarily due to new technologies. One panellist added that there is no point in pushing technology for technology's sake and that it needs to be clear what is expected from central clearing; the next step may be achieving real-time risk management, and technology can assist in that. Finally, from a regulatory perspective, it was remarked that the technology sector is becoming more and more relevant to the financial sector and that the web of operational dependencies is becoming increasingly global; this will make it more difficult to understand where the risks lie. Both regulators and industry agree that global cooperation is key to making sure that supervisory and regulatory practices keep up with technological developments and that novel cooperation structures may have to be explored.

Keynote speech

Fabio Panetta, Member of the Executive Board of the ECB, delivered a keynote speech entitled "Central clearing in turbulent times: frontiers in regulation and oversight".

Session 2: State of clearing in energy markets

The second panel was chaired by the Deutsche Bundesbank and addressed the state of clearing in energy markets. The panel debate focused on the different actors involved in the past market turmoil caused by the energy crisis and was divided into three pillars: (i) experiences with and challenges posed by the energy crisis; (ii) the implications thereof for central clearing; and (iii) the outlook and lessons learned.

The discussion started off with panellists sharing some of the challenges they faced and experiences they had during the market turmoil caused by the energy crisis. The diverse group of participants represented the views of energy companies, clearing members and CCPs, as well as national and European regulators. There was consensus that, although these events and developments have been challenging for all actors, the central clearing system had proven its worth. Central clearing ensured that transactions were carried out even in the face of considerable uncertainty and that the energy sector could in general rely on functioning markets to guarantee supply. However, while the market in general, and CCPs in particular, functioned as expected, margin requirements increased substantially to ensure that CCPs remained sufficiently covered. Consequently, liquidity demand increased strongly as well. As some panellists mentioned, this raised the cost of hedging and lowered the relative costs of clearing in the bilateral over-the-counter (OTC) market. Market participants considered moving to bilateral clearing and thereby exchanging liquidity risk for counterparty risk in the OTC market. This development would also reduce the transparency provided by central clearing. Another consequence observed was that clients now tend to hedge on the "shorter end of the curve". Furthermore, panellists noted that, during these volatile times, communication was key, both along the clearing chain between CCPs, clearing

members and clients and between regulators and legislators. One panellist mentioned that CCPs are trying to be transparent with their members and have been engaging in regular dialogue. Parameter changes have become more frequent, and there were discussions on what CCPs and clearing members could do in line with the European Market Infrastructure Regulation (EMIR) to be better prepared.

When looking back at the high liquidity requirements, several considerations were discussed. While the energy industry was already used to volatile markets and therefore had sound risk management in place, there was still room for improvement regarding liquidity risk governance. When it came to possible measures to meet respective liquidity demands, energy companies first tried to increase their credit lines. However, at a certain point, banks reached their credit limits and bond issuance was subsequently considered as an alternative. In this context, panellists also discussed the suitability of uncollateralised bank guarantees which became eligible collateral in the EU on a temporary basis. It was noted that the acceptance of uncollateralised bank guarantees was not mandatory but at the discretion of CCPs. Additionally, it was mentioned that clients would ultimately reach their maximum regulatory acceptable exposure vis-à-vis banks, similar to the constraints faced with credit lines. There is also the fundamental question of who is ultimately responsible for the risk when bank guarantees are provided as collateral to CCPs. The discussion then shifted to the public support schemes provided by governments, such as those in Sweden and Germany. Several panellists mentioned that energy companies did not systematically use the government programmes provided but that this is no indicator of their effectiveness. While only a few companies made use of the programmes, the possibility of using them should the situation become more severe was valuable. However, speakers agreed that this situation should not be considered the norm. Finally, it was emphasised that market participants would do well to continuously optimise their liquidity management to prepare for future crises.

Panellists then discussed several aspects of margin transparency and anti-procyclicality (APC) tools. One panellist mentioned that, overall, clients had enough information but that there is still room for improvement, for example with regard to liquidity transparency. In the case of CCPs, it was argued that transparency should also extend to margin models. Considering the large increases in margin requirements, speakers noted that the APC buffers were not sufficient but that CCPs nevertheless made good use of them and took the impact of parameter changes on procyclicality into account. However, when discussing whether there should be a rulebook for specific scenarios for the purpose of calibrating APC tools, it was argued that CCPs should still have some discretion since every crisis is different and the necessity of ad hoc recalibrations should be considered. It was further noted that increasing the APC buffers, for example, would lead to higher liquidity requirements in normal times. All the panellists agreed that CCPs' resilience should not be weakened to take liquidity pressure off the market.

To conclude, panellists shared their view on the lessons learned from the recent energy crisis and how improvements can be achieved. One panellist stated that, going forward, regulation needs to become

more flexible. Another panellist remarked that there may be fundamental problems in the energy market that need to be addressed. In that vein, another speaker noted that a better understanding and overview of the clearing environment is necessary.

Session 3: CCP Governance

The members of the third panel discussed current issues in relation to CCP governance. The session was chaired by the Federal Reserve Bank of Chicago.

The session was launched with an overview of the existing or planned regulatory requirements in various jurisdictions regarding CCP risk committees.[1] All regulatory approaches recognise the importance of these structures and related governance. There could be, however, differences with respect to whether risk committees have a role in actual risk management by delegation from CCP boards, or whether they have only an advisory role. In either case, the panel considered risk committees crucial for either approving or advising on changes that can significantly affect a CCP's risk profile. Risk committees are also seen as a key platform for discussion and engagement that can help resolve possible challenges stemming from the different perspectives of relevant stakeholders. If the various perspectives cannot be (fully) reconciled, the CCP board and usually also supervisors would need to be informed. Panel members presenting the views of CCPs confirmed that risk committees have been established and play a key role in their governance and stakeholder engagement. Sometimes, separate risk committees are set up for each default fund. Panellists representing clearing members and clients expressed support for risk committees as a platform for aligning risk incentives. It is primarily clearing members and clients that contribute to the (prefunded) default waterfall; hence they have a key interest in rigorous governance built around decisions regarding CCP risk management, including the activation of emergency powers.

Discussing some specific working modalities, panel members shared the view that CCP risk committees should have sufficient independence from the board. At the same time there could be different ways to ensure such independence, depending on applicable requirements. For instance, regulation may already require a minimum number of independent members, or corporate law may prohibit the delegation of certain responsibilities by the board. In general, the more perspectives and expertise are brought in, the more risk committees will be able to contribute to CCP risk management in line with their mandate. However, the staffing of risk committees, especially in small markets with scarce local

[1] Panel members explained regulatory requirements and CCP practices in the United States, the EU and Singapore. Later in the Q&A session, the approach of CCPs established in India was also explained from the audience.

resources, may be challenging. All these considerations would need to be taken into account when risk committees and related procedures are established.

Turning to the question of conflict of interest, panellists agreed that CCPs should act in the interest of the broader financial system. The resilience of CCPs and the stability of the broader financial system are interdependent, thus risk incentives would usually be aligned. However, as raised by panel members representing clearing members and clients, there could be rare instances where conflicts of interest may arise naturally (e.g. application of variation margin haircutting or partial tear-up). Therefore, it is desirable to develop governance arrangements upfront, on the basis of which potential conflicts of interest can be resolved effectively. Speakers from CCPs added that independent risk management functions and relevant committees are established with the aforementioned purpose in mind in order to consider various views and deliver a better risk outcome for all stakeholders and hence for financial stability.

With respect to accessing confidential information in risk committees and default management groups (DMGs), panellists pointed out that members of those groups would be bound by confidentiality clauses in applicable law and written agreements. Risk committee and DMG members are accountable in this respect, and discussions are recorded in written minutes. One speaker added that in risk committees there is usually no need to share named data, and for the purposes of DMGs named data may be anonymised. Regarding participation in DMGs, members also sign dedicated non-disclosure agreements (NDAs). Hence, there are various tools that CCPs may rely upon to ensure appropriate treatment of confidential information in risk committees and DMGs.

As a last point, the panel discussed the role of risk committees in relation to assessing new products, in particular the clearing of derivative markets in crypto-assets. Speakers explained that new products, especially those significantly altering the CCP risk profile, require thorough scrutiny and awareness from the risk committee. It was also pointed out that launching such products requires a CCP to go through various stages of governance, including broader stakeholder engagement, risk committee and board discussions and regulatory sign-off. Some panellists noted the diverging interest and appetite within the clearing community regarding the launching of new products such as products related to crypto-assets. This aspect could be analysed and discussed through CCP governance and, if relevant, alternative solutions could be developed (e.g. separate liquidation groups or default funds) in order to meet the risk appetite of clearing members and clients with respect to risk mutualisation.

Closing remarks

Dr Julian Reischle, Director General Payments and Settlement Systems of the Deutsche Bundesbank, delivered closing remarks entitled "Crisis becomes our new reality – CCPs and market participants will have to prepare for it".