



ESRB response to the consultative report by the BCBS, CPMI and IOSCO

on transparency and responsiveness of initial margin in centrally cleared markets

The European Systemic Risk Board (ESRB) welcomes the consultation launched by the Basel Committee on Banking Supervision (BCBS), the Bank for International Settlements' Committee on Payments and Market Infrastructures (CPMI) and the International Organization of Securities Commissions (IOSCO) on transparency and responsiveness of initial margin in centrally cleared markets.¹ The ESRB is responsible for the macroprudential oversight of the EU financial system and for the prevention and mitigation of systemic risk. The ESRB's remit encompasses a wide range of financial entities and markets, including banks, insurers, asset managers, shadow banking entities, financial market infrastructures and other financial institutions. Financial market infrastructures are a critical element of the financial system, playing an increasingly pivotal role in the landscape that has emerged after the global financial crisis.

The ESRB has expressed views on issues closely linked to those highlighted in the consultative report. In its 2017 report on the macroprudential use of margins and haircuts,² the ESRB discussed how margin practices could exacerbate procyclicality, transmitting liquidity pressures throughout the financial system. The report also reflects on potential macroprudential instruments that could be designed to mitigate these pressures. In 2020, the ESRB revisited and added to these findings.³ The ESRB also examined the market turmoil in March 2020, which was triggered by the onset of the COVID-19 pandemic. This episode was characterised by some of the largest margin calls witnessed to date,⁴ and the ESRB issued Recommendation ESRB/2020/06⁵ based on its analysis. The ESRB has also analysed the 2022 energy crisis, focusing on the financial stability implications of expanding

¹ See “BCBS-CPMI-IOSCO publish consultative report on transparency and responsiveness of initial margin in centrally cleared markets”, *press release*, BIS, 16 January 2024.

² See *The macroprudential use of margins and haircuts*, ESRB, February 2017.

³ See *Mitigating the procyclicality of margins and haircuts in derivatives markets and securities financing transactions*, ESRB, January 2020.

⁴ See *Liquidity risks arising from margin calls*, ESRB, June 2020.

⁵ See *Recommendation of the European Systemic Risk Board of 25 May 2020 on liquidity risks arising from margin calls (ESRB/2020/6)*.

the range of eligible central counterparty (CCP) collateral in order to ease the burden on non-financial corporations that faced significant margin calls during the crisis.⁶

With this reply, the ESRB would like to emphasise how the policy proposals in the BCBS, CPMI and IOSCO consultative report would enhance transparency and contribute to mitigating potentially destabilising developments associated with margin requirements. The ESRB also welcomes the opportunity to make some observations and suggest potential enhancements based on several years of analytical research.

This response is structured in two parts, both made up of two sections.

- The first part provides general considerations on the topics discussed in the consultative report as follows:
 - the first section reviews the recent instances of instability observed in European financial markets, underscoring the role that margin requirements and market structure have played in these episodes;
 - the second section provides an overview of the ESRB's work in analysing data on central counterparties (CCPs) and the role of transparency in monitoring systemic risks and fostering financial stability.
- The second part provides the ESRB's replies to the general questions and discusses the policy proposals put forward in the consultative report as follows:
 - the first section gives input on the general questions;
 - the second section provides a more detailed examination of the individual policy proposals.

⁶ See *ESRB response to ESMA's Final Report on Emergency measures on collateral requirements, including draft RTS amending Commission Delegated Regulation (RTS) 153/2013*, ESRB, October 2022.

General considerations

Considerations on the recent episodes of instability in the EU financial markets

In recent years there have been many instances of instability involving derivatives markets and CCPs.

Centrally cleared derivatives have been involved in various episodes. These include the March 2020 market turmoil, the energy crisis in Europe, and the UK gilt turmoil in 2022. These instances share two common characteristics: (i) high levels of concentration and (ii) endogenous, often procyclical, feedback mechanisms that exacerbated exogenous shocks. Reflecting these dynamics, the procyclical effects of margin calls have emerged as a major concern for policymakers at EU and international level. Mitigating the negative impact arising from margin-induced funding and liquidity stress and averting contagion within the wider financial system required a diverse set of policy measures to be implemented.

Unprecedented interventions by public authorities played a crucial part in maintaining the resilience of the central clearing ecosystem. In March 2020, liquidity provision programmes put in place by central banks in response to the COVID-19 pandemic helped to stabilise markets.⁷ This meant that clearing members (CM) had sufficient liquidity to meet margin calls. During the 2022 energy crisis, public authorities intervened to assist some market participants in meeting margin calls.⁸ By supporting CMs and their clients, this set of measures also meant that CCPs were able to manage these episodes in an environment that was more favourable than it would have been without public intervention.

The energy crisis illustrates the influence margin requirements can exert on market liquidity and market price dynamics. According to ESRB analyses and reports from some market participants, as the soaring volatility in natural gas prices triggered higher initial and variation margin calls, financial and non-financial counterparties faced a challenge: they needed to either increase funding via additional credit lines (or new debt issuance) or reduce positions in the derivatives market. This placed pressure, for instance, on counterparties hedging their energy output by taking short positions in the natural gas futures market. Confronted with rising margin calls, and with limited funding available at short notice, these counterparties reduced or unwound their short positions by purchasing long positions. This covering of short positions skewed demand towards long positions in futures and, in a market displaying high concentration among market participants,⁹ played a part in creating a liquidity squeeze that further exacerbated the increase in prices and volatility. This self-reinforcing feedback loop between margin calls, price levels and volatility is an example of the interaction between funding

⁷ See, for example, “**Stabilising financial markets: lending and market making as a last resort**”, *Reports of the Advisory Scientific Committee*, No 13, ESRB, January 2023; “**Lessons learned from initial margin calls during the March 2020 market turmoil**”, *Financial Stability Review*, ECB, November 2021; and **Review of margining practices**, BCBS, CPMI and IOSCO, September 2022.

⁸ See, for example, **the KfW press release of 17 June 2022, the Energy Markets Financing Scheme (EMFS) page on the Bank of England’s website** and **Financial Stability Report 2022:2**, Sveriges Riksbank, November 2022.

⁹ See “**EU natural gas derivatives markets: risks and trends**”, *TRV Risk Analysis*, ESMA, May 2023 and **Financial Stability Review**, ECB, November 2022.

and market liquidity described in the academic literature.¹⁰ Concentration in the trading of these fundamental energy benchmarks also played a pivotal role in driving volatility and reducing liquidity, as pointed out in a recent report by the European Securities and Markets Authority (ESMA).¹¹

It is also essential to understand the distinct functions performed by some CMs within the clearing ecosystem which act concurrently as clearing service providers, providers of funding liquidity and contributors to market liquidity when taking positions in the market. These CMs, often large banking groups, may act simultaneously as market makers and providers of funding liquidity, which is crucial for meeting margin calls.¹² However, in certain scenarios, such as during periods of high volatility, these entities need to decide whether to extend both funding and market liquidity to specific clients. Even if the clients' underlying financial positions are sound – for instance in the case of energy companies hedging their energy production or consumption – banking entities may be constrained by their own counterparty credit limits from funding margin calls for their clients. CMs need to balance support for market stability with adherence to their risk management protocols. Additionally, some of these CMs actively participate in the market, including through their subsidiaries, thereby expressing a view on those same markets in which their clients operate. Central counterparties and CMs therefore need to consider not only the financial viability and risk profile of their clients but also the broader market implications of their margin and funding decisions. The plurality of roles played by CMs – providing liquidity support while also engaging in market activities – involves a complex interplay between CMs' operations and their impact on market dynamics and liquidity.

From a systemic risk viewpoint, it is therefore necessary to obtain a clear picture of how margin requirements reallocate risks across the financial system. Whether they are used to collateralise or settle transactions, margins are usually funded from other parts of the financial system. Transactions that are subject to margin requirements, such as those cleared by a CCP, enjoy special status with respect to other unsecured or uncollateralised claims since, in the event of default, the collateral would be immediately available to reduce or extinguish the exposure from the defaulted counterparty. Recent rule changes by CCPs, adopted by CM banks, have introduced “settled-to-market” (STM) accounting conventions for certain over-the-counter (OTC) derivatives and treat cash variation margins as settlement payments.¹³ While this approach does not alter the economic cash

¹⁰ See Brunnermeier, M.K. and Pedersen, L.H., “Market liquidity and funding liquidity”, *The Review of Financial Studies* No 22.6, 2009, pp. 2201-2238; and Bouveret, A. et al., “**EU Energy Derivatives Markets: Structure and Risks**”, *Financial Stability Review*, Issue 44, Banco de España, spring 2023.

¹¹ See “**The August 2022 surge in the price of natural gas futures**”, *TRV Risk Analysis*, ESMA, October 2023.

¹² See, for example, **EBA response to the European Commission on the current level of margins and of excessive volatility in energy derivatives markets**, September 2022.

¹³ See, for example, “**Frequently asked questions on the liquidity risk treatment of settled-to-market derivatives**”, *press release*, BIS, 20 September 2018.

flow between counterparties,¹⁴ it contributes to the reduction of capital requirements for market participants,¹⁵ in turn reducing the loss-absorbing capacity with respect to claims from non-derivatives creditors. Margin requirements thus play a part in reallocating counterparty risk throughout the financial ecosystem, rather than eliminating it entirely. In addition to the size of margin calls, the funding strategies of market participants are therefore also highly significant and have a critical impact on market participants' level of preparedness. The availability of funding is influenced by the level and distribution of liquidity within the financial system. In turn, the level and distribution of liquidity are determined by the current monetary policy. The interplay between (i) margin funding practices and preparedness, (ii) the scale of required margins, and (iii) system-wide liquidity levels collectively determine the resilience and responsiveness of market participants to financial stress.

The ESRB therefore strongly supports the policy proposals, set out in the consultative report, to increase the transparency of margin requirements across the whole clearing chain, and emphasises the fundamental principle that transparency requires efforts from both CCPs and CMs. Obtaining up-to-date information from the viewpoint of CCPs, CMs and clients is critical for identifying the ultimate bearers of risk. The ESRB believes that enhancing transparency is crucial for overseeing the distribution of risk across the financial system. Transparency is also indispensable in allowing market participants to anticipate and plan their funding and liquidity requirements, so that they can prepare to meet margin calls. The proposals would significantly help in mitigating potential destabilising events arising from margin requirements.

Transparency and preparedness, although vital for mitigating instability episodes, will not alone be enough to avert destabilising spirals between margin requirements and market liquidity, especially in markets showing high concentration. Accurate forecasting of margin calls is essential for devising a robust funding strategy. However, by itself, it will not guarantee the ability to secure funding amid significant market volatility, particularly in scenarios exacerbated by feedback loops, such as those observed during the energy crisis. Enhanced transparency will nevertheless be essential in allowing market participants and authorities to carry out analyses on the impact of margin requirements on funding and market liquidity.

In the ESRB's view it is crucial to evaluate, based on the lessons learned from the various episodes witnessed in recent years, whether further initiatives are necessary to enhance existing policies aimed at lowering both the likelihood and the negative impacts of feedback loops and destabilising margin spirals. The ESRB believes that it is therefore fundamentally important to continue making progress with analytical work aimed at better understanding the role of feedback loops and margin spirals, and their influence on market liquidity. At the same time, it is crucial, where necessary, to develop additional policy instruments both to reduce the likelihood of these feedback loops and margin spirals occurring and to mitigate their impact when they materialise. As central clearing plays a key role in the post-crisis financial market infrastructure, market participants in the clearing ecosystem need to make progress in adopting a macroprudential perspective in their

¹⁴ See the [EBA Single Rulebook Q&A](#).

¹⁵ See, for example, [the BIS website](#) for a description of the impact this accounting convention has on exposure measurement under the Basel framework.

informational and risk management frameworks, with the understanding that their activities have the potential to influence market dynamics and market liquidity.

Data and transparency

The ESRB has worked extensively on the quantitative analysis of CCPs and market infrastructure, making use of several datasets. In partnership with the ECB, ESMA and all its member institutions, the ESRB has established a data infrastructure to analyse the information available through granular datasets on derivatives and securities financing transactions – reported under the European Market Infrastructure Regulation (EMIR)¹⁶ and the Securities Financing Transactions Regulation (SFTR)¹⁷ respectively – and from the public quantitative disclosure (PQD) framework for CCPs. This data infrastructure enables EMIR, SFTR and PQD data to be collected and processed. It has also led to the construction of a comprehensive set of risk indicators for CCPs, based on the PQD and published quarterly in the ESRB risk dashboard.¹⁸ The ESRB currently processes PQD data reported by 19 EU and non-EU CCPs.

Transparency is one of the key principles underpinning the support for central clearing. However, nearly a decade after the entry into force of the reporting requirements under EMIR, the data reported by CCPs and other financial institutions still present substantial quality issues, which impair the ability of EU authorities to monitor these fundamental components of the financial system. It is worth emphasising that institutions reporting under this framework, including CCPs, are already expected to collect and possess high-quality granular data, primarily for risk management purposes. Thus, when these data are reported to authorities, they should not present major quality issues, and the information reported should be complete, accurate and up to date. The quality of the data submitted to authorities varies considerably across reporting entities, indicating that the main issue does not lie within the reporting framework. Some CCPs and other major financial institutions have shown only limited commitment to developing internal processes for validating and checking the quality of data before submitting them to the authorities. In a letter to EU legislators,¹⁹ the ESRB has highlighted that data quality issues extend beyond the technical challenges: poor data quality makes it more difficult to monitor developments in financial markets, as well as making it harder to monitor financial stability and assess risk effectively. This compels policymakers to devote substantial resources to detecting and analysing data quality problems and creates blind spots.

¹⁶ Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories (OJ L 201, 27.7.2012, p. 1).

¹⁷ Regulation (EU) 2015/2365 of the European Parliament and of the Council of 25 November 2015 on transparency of securities financing transactions and of reuse and amending Regulation (EU) No 648/2012 (OJ L 337, 23.12.2015, p. 1).

¹⁸ See the [ESRB risk dashboard](#).

¹⁹ See the [ESRB letter of 12 July 2022](#).

The ESRB Secretariat has emphasised that data quality should be viewed as a common good, critical for underpinning financial stability and fostering a resilient financial ecosystem.²⁰ Hence, low data quality undermines the objective of improving transparency, thereby contravening one of the fundamental principles underpinning the support for central clearing. In addition, these data quality concerns may indicate wider data aggregation and risk management issues for banks, similar to those identified by the BCBS.²¹

The PQD framework represents a milestone in the drive to improve the disclosure of information on central counterparties to authorities and the public, enhancing transparency in central clearing. However, the use of the data by policymakers, the academic community and the public has been constrained by insufficient adherence to reporting standards, as well as delays and other data quality issues. The ESRB has invested considerable resources in establishing a set of procedures that are now being consolidated into an infrastructure for collecting, processing and computing indicators from the PQD data. The challenges faced are not rooted in the complexity or volume of the data but stem from the following causes.

1. **Delays in publication:** PQD reports are sometimes unavailable because of delays in publication (which is expected to take place between one and two months after the reference period).
2. **Challenges in automating the downloading process:** PQD reports are sometimes not readily accessible for automated downloading and significant manual intervention is still required to download reports from websites, which are not designed in a way that allows the automation of the download process.
3. **Challenges in parsing the reports:** PQD reports present challenges in parsing due to their lack of standardisation, attributed both to the absence of machine-readable formats and to inadequate pre-disclosure controls implemented by CCPs.

The ESRB has been in contact with EU CCPs and CCPs' associations to discuss the issues it has identified. The current non-standardised approach would become impractical for a larger number of entities, especially at increased reporting frequencies. Enhancing the frequency of PQD reporting may prove ineffective if the reports published are not readily accessible for automated downloading and parsing. Therefore, to ensure success, it is essential to (i) promote a move towards standardised reporting schemes, with reports available in a machine-readable format, and (ii) remove obstacles to automated processing by improving the accessibility for automated downloads. In addition, it would be important to consider implementing a single access point for data retrieval.

PQD reports must be published on time to ensure transparency and consistent data collection, to allow data to be compared across CCPs and to enable timely monitoring. Currently, the best-case scenario for CCP reporting involves a one or two-month lag. Several CCPs release data with significant additional delays. This issue, coupled with inefficient processes for accessing data on CCPs' websites, makes it difficult to keep track of

²⁰ See *ESRB Secretariat staff's response to ESMA's consultation paper on technical standards on reporting, data quality, data access and registration of trade repositories under EMIR Refit*, July 2020.

²¹ See *Principles for effective risk data aggregation and risk reporting*, BCBS, January 2013.

the actual publication dates, which may be well beyond the expected publication date, and to keep track of any corrections or updates. Therefore, the delays hinder authorities' ability to monitor developments and maintain comparability with other CCPs. Automating the download process is also difficult because different CCPs follow different conventions (and the conventions used by an individual CCP may change over time). In addition, downloading data still involves several manual steps. While efforts have been made to adopt a standardised global template,²² most CCPs do not fully adhere to the template, so a time-consuming preliminary phase of data harmonisation is needed before the analysis can be conducted. This introduces additional complexity and error susceptibility into the data collection process.

The ESRB would like to stress how crucial it is for the data to be made available in a way conducive to automation. While the ESRB fully endorses the consultative report's proposals to expand the scope and frequency of data collection, it also stresses that the data need to be standardised, provided in a machine-readable format and accessible by means of an automated process. Unless data access is simplified and standardised, the collection process will become increasingly complex, placing a significant burden on both supervisory authorities and other stakeholders, and potentially compromising the objective of enhancing transparency and comparability. While a phase-in period may be necessary so that the necessary steps can be implemented, unless there is sufficient emphasis on automating processes, stakeholders could find themselves compelled to dedicate significant resources to the processing of data – leading to a duplication of efforts across multiple entities, authorities and jurisdictions – or to invest in acquiring the data in question from private vendors that compile this public information.

Therefore, the ESRB believes that investing in improving, enriching, and harmonising the template, as well as implementing solutions to foster automation, would ultimately reduce costs for both reporting entities and global stakeholders. The ESRB also suggests considering two additional measures. The first would be to establish and recommend technical specifications for the file content, such as predefined data types, and to require files to be in a machine-readable format. Additionally, as part of this first measure, we recommend proposing guidelines designed to enable automated access and streamlined processing of the reports from the CCPs' websites. As a second measure, the ESRB would suggest developing a single access point where standardised files are readily available for download in the agreed format. The ESRB believes that improving these aspects will substantially lower the barriers to accessing these data, thereby reducing operational costs for reporting entities and global stakeholders thanks to improved efficiency in data management and processing. The ESRB believes that the proposals would benefit greatly from further technical insights provided by the various stakeholders. More information on this set of suggestions is available in the response to Proposal 5.

²² See [the CCP Global website](#).

Replies to the general questions and discussion of the policy proposals

General questions

1. Collectively, if adopted, would the set of proposals likely result in increased transparency and a mitigation of destabilising changes in margin requirements in centrally cleared markets? Please identify within the set of proposals any which would be particularly beneficial and others which may be less beneficial (e.g., where the costs may substantially exceed the benefits). Please provide an explanation to your answer.

The ESRB believes that the set of proposals put forward in the consultative document would significantly enhance transparency, which is crucial to financial stability, and would help mitigate destabilising dynamics in margin requirements by fostering a more transparent, informed and resilient clearing ecosystem. The proposals aimed at enhancing transparency by making margin simulation tools available, already implemented by some CCPs, will provide CMs and their clients with critical information helping them to assess and be prepared for liquidity needs, in particular during stress periods. To achieve these objectives, the margin simulator should enable margin developments to be simulated across various historical and hypothetical scenarios, similarly to a stress test. This will lead to more informed decision-making processes, in turn helping to mitigate the procyclical impacts triggered by sudden and significant increases in margin requirements, in particular during periods of elevated stress. At the same time, it is crucial to avoid overreliance on the margin simulation tools and to ensure that market participants adopt them as part of their wider risk management framework. More detailed documentation explaining CCPs' margin models will be useful in helping CMs and clients to better understand the underlying logic and principles of margin calculations. The ESRB emphasises its strong support for Proposal 5. Expanding the scope, granularity and frequency of the disclosure framework will significantly benefit market participants and the public, including the research and policymaking communities. However, the ESRB emphasises that the proposal will only succeed if standardisation and automation challenges are overcome, and it proposes specific solutions to these issues. Unless the issues are addressed, it may be difficult for the improved disclosure framework to attain the intended level of transparency. Enhancing, enriching and harmonising the templates, as well as adopting solutions that promote automation, will decrease costs for reporting entities and all global stakeholders. The ESRB welcomes Proposal 6 for quantifying the responsiveness of margin models. It recognises the proposal as a highly innovative enhancement to the disclosure framework which could foster further research and policy work in this important area. Quantifying responsiveness and procyclicality in a harmonised way will be challenging. Therefore, in its response, the ESRB proposes a set of metrics to be considered.

2. Are there any aspects of margining practices in centrally cleared markets that have not been adequately covered by the set of proposals and which could positively contribute to achieving the Margin Group's objectives?

The ESRB believes that the work undertaken is comprehensive and highly innovative, resulting in policy proposals that address to a significant extent the issues identified. Enhanced transparency and preparedness will help mitigate destabilising margin dynamics. However, transparency and preparedness alone will not be enough to overcome the challenges associated with destabilising feedback loops between margin requirements, funding

and market liquidity, especially in highly concentrated markets (as seen, for instance, during the European energy crisis).

The ESRB argues that, to effectively address these challenges, it is crucial to draw lessons from recent episodes and formulate additional, innovative policies aimed at reducing both the occurrence and the adverse effects of destabilising spirals between margin requirements, funding and market liquidity. This will require a two-pronged approach: first, further in-depth analytical research on feedback loops and their impact on market liquidity is needed; second, the insights gained from this analytical groundwork must be used as a basis for developing – where necessary and based on sound cost-benefit analysis – policies that address and mitigate these risks.

3. Many of the proposals recommend that a market participant group (e.g., all CCPs, all CMs, etc.) be required to provide enhanced disclosure or adopt a new practice. Should the principle of proportionality, with requirements dependent on participant size or type, be used in determining how different firms apply the proposals? If so, in what ways? Please specify the proposal(s) in your response.

The assessment of proportionality should adequately reflect the risks connected with the clearing ecosystem, as well as the impact of destabilising events on the rest of the financial system and the real economy. Disclosure of additional data should not give rise to a significant additional burden, given that all entities in the clearing ecosystem are expected to already have and use high-quality, granular data for risk management purposes. Consequently, the disclosure of additional information should not present significant challenges, and the data should already be accurate and up to date. It is also important to acknowledge that there will probably be the need for a phase-in period allowing market participants to adapt their reporting practices to the new proposed framework.

The ESRB's views on the policy proposals

Proposal 1: Margin simulation tools, commonly used by market participants to estimate margin requirements, should be made available by all CCPs to all CMs and their clients.

The ESRB supports the ideas put forward in Proposal 1. This proposal aims to mitigate the procyclical impact of abrupt and significant increases in margin requirements by equipping CMs and clients with enhanced information, enabling them to better predict margin calls in relation to their positions. Extending the use of margin simulation tools designed to enable a deeper understanding of margin models will help market participants to be better prepared. However, it is important that the results of the simulations carried out with these tools remain non-binding, so that CCPs still have the flexibility needed to respond effectively during periods of stress and crises. This balance between predictability and flexibility is key to maintaining system stability while allowing for necessary adjustments in response to evolving market conditions.

The ESRB notes that, in the EU, Article 38(6) of EMIR already addresses this issue, providing for certain standards and practices to be followed in managing and calculating margins. Under this article, an EU CCP must provide its CMs with a non-binding simulation tool on a secured access basis, enabling it to estimate the additional initial margin required for new transactions on a gross basis. In addition, an EU CCP must transparently provide detailed information on the initial margin model it uses, including a clear explanation of the model's design and operation, a comprehensive description of its key assumptions and limitations, and the conditions under which these assumptions may become invalid, all of which must be thoroughly documented.

It is important to provide information about margin requirements both for individual instruments and within a portfolio of instruments. Portfolios may comprise contracts with diverse characteristics, such as the underlying asset class, maturity, etc. The distinction between simulating the dynamics of an individual instrument and simulating those of a set of instruments in a portfolio is crucial: in a set of instruments, correlations emerge as one of the key factors influencing the aggregate margin calls, particularly when historical correlations break down during market stress. In such scenarios, a limited set of products could have a high impact on margin requirements. This significant difference suggests that the approach to correlation should mirror the treatment applied to volatility, which means that stressed data should be used only to account for potential extremes in market conditions.

The ESRB also notes that if CCPs share a margin simulation tool with their CMs and clients, this could help in addressing the ESRB proposal in ESRB Recommendation 2020/06.²³ Here, the ESRB recommends that CCPs should design their margin requirement models, collateral valuation and acceptance policies, and haircut determination procedures to avoid causing abrupt and substantial changes that could lead to "cliff effects" in initial

²³ See [Recommendation of the European Systemic Risk Board of 25 May 2020 on liquidity risks arising from margin calls \(ESRB/2020/6\)](#).

margins and add-ons. If the characteristics of the CCPs' models are made available to a CM, then the CM can anticipate any sudden or significant changes in margins required.

Proposal 2: Margin simulation tools should include, at a minimum, functionality allowing the following:

- a. The calculation of margin requirements under varying historical and hypothetical market conditions for current and hypothetical portfolios.
- b. The incorporation of add-on charges in addition to baseline (or "core") initial margin.

CCPs should ensure that margin simulation tools reflect all material components of the underlying quantitative methodologies.

The ESRB supports this proposal, recognising its potential to provide market participants with improved insights into margin calls, thereby enabling more informed decision-making. In addition, as highlighted in the consultation document, the CPMI-IOSCO Principles for financial market infrastructures²⁴ make it clear that the responsibility for conveying and understanding risks and procedures rests with market participants. Consequently, market participants should already be at least to some extent familiar with practices that support the understanding of margin requirements and the associated risks.

The simulation tools could be made more useful by incorporating both options outlined in Proposal 2 of the consultative report. Using CCP-defined hypothetical scenarios would allow market participants to assess the resilience of their positions against extreme but plausible market conditions that the CCP considers relevant. Such scenarios typically reflect historical crises or theoretical market downturns, offering insights into potential margin requirements during times of heightened stress. However, allowing market participants to define market scenarios by inputting their own data into specific parameter fields would provide significantly greater flexibility to analyse potential market scenarios, enabling participants to conduct "what-if" analyses tailored to their views or market outlooks. In addition, it would encourage participants to understand the determinants of their potential margin calls under various conditions and help them manage risk by accommodating a wider range of market conditions beyond those predefined by the CCP.

This approach would not only align simulation tools more closely with CCPs' actual stress testing and risk assessment practices but also offer users the flexibility to tailor analyses to their specific concerns and hypotheses, thereby broadening the usefulness and applicability of the tools for a diverse array of market participants. It would also be worth considering whether providing a standardised format for input from market participants would make the tools easier to use across the system.

Proposal 3: Where legally permissible, CCPs should make margin model documentation available to CMs at a level that can enable them to understand key aspects of the CCP's margin model and its approach to risk management. This documentation should include the following:

²⁴ See [Principles for financial market infrastructures](#), CPSS and IOSCO, April 2012.

- a. Explanations of the calibration of key model parameters, including any relevant components which affect the size and speed of margin requirement changes during periods of elevated stress.
- b. The logic, applicable thresholds and data used for the calculation of margin add-ons.

The ESRB endorses the proposed level of additional granularity and observes that any documentation that helps with understanding CCPs' margin models would be useful for the CMs and clients, subject to non-disclosure legal safeguards. This documentation would be a key means for CMs to gain a deeper understanding of the logic and principles underpinning margin calculations, thereby enhancing transparency and trust in CCPs' operational and risk management framework. Assessing the appropriate level of disclosure requires a nuanced understanding of whether the concerns expressed by CCPs relate only to the disclosure of proprietary information or whether they stem, in their view, from potential financial stability implications. For instance, it would be crucial to clarify under which scenarios detailed model disclosures might negatively affect risk management incentives or market liquidity (e.g., as a result of herding behaviour that could exacerbate concentrated fire sales). Highlighting the regulatory support in the EU for such transparency measures, ESMA has already issued guidance on the documentation to be shared with CMs in the revised EMIR Regulatory Technical Standards (RTS).²⁵

Proposal 4: CCPs should publicly disclose and describe the anti-procyclicality (APC) tools used in their model. CCPs should also publicly disclose and describe, at a high level, the model components that affect the level of model responsiveness.

The ESRB supports this proposal. Adopting it would help create a more harmonised global playing field and significantly increase the predictability of margin calculations, in line with broader financial stability objectives.

However, the concept of procyclicality – which is intrinsically qualitative – presents challenges when it needs to be defined quantitatively. The ESRB recognises that this concept has been interpreted in multiple ways and has long advocated a definition that would enable a common understanding.²⁶ As pointed out in the consultative document, “the tendency of initial margin (and other risk-sensitive protections) to increase as volatility increases is expected and typical”. What needs to be addressed are the destabilising changes that have the potential to intensify exogenous and endogenous shocks. The reaction of margin models to events is not straightforward: for instance, an event that triggers a substantial increase in margin requirements for one model may have less impact on another. Conversely, the same two models would behave in the opposite way under a different set of events. Effectively managing procyclicality therefore requires an understanding of both the mechanics of the employed margin model and the characteristics of the set of events in question.

In this context, it would be important for CCPs to expand, where appropriate, on the explanation of their APC tools. CCPs should transparently convey to market participants the specific scenarios under which margin models

²⁵ See *Final Report – Review of the RTS with respect to the procyclicality of CCP margin*, ESMA, July 2023.

²⁶ See *ESRB report on the efficiency of margining requirements to limit pro-cyclicality and the need to define additional intervention capacity in this area*, ESRB, July 2015.

would exhibit potentially procyclical behaviours, similarly to reverse stress testing. Such an approach would help market participants understand the relationship between margin requirements and given market conditions. This enhanced understanding would then further bolster market participants' preparedness.

In its response to ESMA's consultation on APC measures,²⁷ the ESRB Secretariat noted that the proposed guidelines afford CCPs considerable leeway in determining metrics and parameters, stemming from ESMA's decision to await the outcome of ongoing work by the BCBS, CPMI and IOSCO in this area. While acknowledging the flexibility this approach provides, the ESRB Secretariat argued, at the same time, that more definitive guidance for CCPs was needed, at least in the medium term, to ensure a balanced framework.

Proposal 5: CCPs should provide additional breakdowns of margin-related data through the Public Quantitative Disclosures (PQDs) and report such data more frequently and with shorter reporting lags. All PQD data should be reported consistently and accurately.

The ESRB strongly endorses Proposal 5. Expanding the scope and granularity of disclosures, as well as the set of entities required to disclose, will significantly benefit not just markets but also the wider public, including public authorities, and the research and policymaking communities. This enhanced disclosure regime will foster transparency, facilitate more informed decision-making, and enhance market integrity. CCPs will also have an incentive to step up their investment in data quality, which is crucial to financial stability.²⁸ In addition, improving the breakdowns of margin-related data and increasing the reporting frequency would allow EU authorities to integrate and compare the PQD data with other datasets such as EMIR and SFTR.

The ESRB supports the proposal for an improved reporting framework, including the reduction of the reporting time lag. Regarding the details of the disclosures, we suggest introducing a flow-level report for daily variation margin reports alongside a stock-level report for initial margins. Adopting this approach would allow for the straightforward computation of the delta (margin call) for initial margins, without losing information on the current initial margins held by CCPs. The ESRB further proposes that CCPs disclose, where legally permissible, the complete list of their CMs, identified by their Legal Entity Identifiers (LEIs), in an additional disclosure. Adopting the LEI standard should not present any additional issues as EU CCPs are already required to use LEIs for reporting transactions with their CMs under EMIR and SFTR. In addition, EU CMs are expected to already have an LEI, which is necessary for reporting transactions involving a CCP.

While a phase-in period may be required, expanding the scope and frequency of reporting within the disclosure framework is unlikely to represent a significant burden from an operational or cost perspective. These entities should already have, reconcile and validate – primarily for their own internal risk management processes – the information that would be required in the enhanced disclosure framework. Thus, challenges in aggregating and reporting these data would not be due to the enhanced disclosure framework. In addition, a requirement to

²⁷ See *ESRB Secretariat's response to ESMA's consultation on APC measures for CCPs*, March 2022.

²⁸ See *ESRB's view regarding data quality issues and risks for financial stability*, July 2022.

provide these additional data would not be expected to create issues regarding market integrity, unless the markets exhibited extreme concentration. Such a scenario would be more likely to highlight concerns regarding market effectiveness and structure than concerns regarding the nature of the information disclosed. In addition, the volume of data involved would be manageable if it were standardised and streamlined. Consequently, the cost of implementing the expanded reporting framework would be relatively minor when weighed against the substantial benefits it would deliver in terms of market transparency, regulatory oversight and the promotion of a more robust clearing ecosystem.

The ESRB stresses that scalable solutions are needed to expand the volume and frequency of data collection. Automated systems and standardised, machine-readable data formats would then be crucial for handling the increase in the scope of the disclosure framework and frequency of reporting; the ESRB's experience with the PQD data shows that relying on manual methods for downloading, processing, and managing data from various sources in different formats would be highly impractical in this case. If public disclosures are not sufficiently standardised, then not only is the clearing ecosystem much less transparent, but it is also harder to compare data and assess risk because of the resulting delays in monitoring. Managing data on a monthly or even daily basis would therefore be unfeasible without standardised, structured data solutions. ESRB work has shown that a low degree of standardisation, as well as leading to data quality issues and reporting delays, hinders transparency and comparability, making the process both exceedingly time-consuming and susceptible to inaccuracies. In addition, if data are not standardised or machine-readable, there is an incentive for private data providers to collect and disseminate public data at a cost. In this situation, transparency could be at risk, especially if the costs of accessing the data escalate during crises, or if the provider does not supply or update the data promptly. Without a standardised global solution, there could be delays in the availability of crucial information, particularly during periods of heightened stress when timely data are most critical.

The ESRB's experience with PQD data published quarterly in the ESRB risk dashboard provides a concrete example of the problems that can result from a low degree of standardisation. Section 8 of the dashboard focuses on risks related to central counterparties. Our current workflow for this section involves processing data from 19 EU and non-EU CCPs, extracting seven tables and approximately 35 fields for each CCP for a period spanning several quarters. Numerous cleaning and harmonisation operations are needed because of issues with misreporting or limited compliance with the template, equating to thousands of avoidable data harmonisation tasks. From a resource perspective, the lack of data standardisation substantially prolongs PQD processing times, so a process that should take hours instead takes weeks.

The ESRB has identified the following key elements, listed in order of priority, which will determine the success of the enhanced disclosure framework.

1. Adoption of a reporting framework which follows the structure of well-established higher frequency reports (e.g., EMIR in the EU²⁹) that are usually composed of the following four elements.
 - (a) A technical document (referred to as Regulatory Technical Standards in EU data collections), which details the fields to be reported along with their detailed descriptions. In practice this document will follow the “Public quantitative disclosure standards for central counterparties” set out by the CPMI and IOSCO.³⁰
 - (b) A complementary technical document (referred to as Implementing Technical Standards in EU data collections), which specifies the reporting fields and their mandatory formats, and which identifies those fields that should conform to well-established global standards for currency codes, date formats, etc. as well as the LEI (ISO 17442) for the identification of legal entities.
 - (c) A set of validations rules to be implemented by reporting agents (CCPs) before the publication of the data.
 - (d) Adoption of a machine-readable file format for publishing the reports, e.g., XML for a fully-fledged solution which would address nearly all parsing issues. Implementing the first three elements would make the publication process much easier in the case of other non-self-descriptive formats such as CSV.

Specifying the format for each field in PQD reports and ensuring that the data are validated by the CCPs as reporting entities before publication will ensure that the data can be more easily processed without the need for manual intervention. Standardising the format across all reporting entities ensures consistency and efficiency in data collection, processing, and analysis. The adoption of an XML format will make automated data parsing, validation, aggregation, and analysis of the enhanced disclosure framework much easier.

2. Adoption of global standards. For instance, adopting the LEI ISO 17442 to identify both CCPs and CMs is crucial for uniquely and unambiguously identifying participants in financial transactions. Given that large financial entities operate through numerous subsidiaries as CMs across different jurisdictions, adopting the LEI standard would significantly improve the process of identifying CCPs and CMs, which already have an LEI because of the derivatives reporting obligations in most jurisdictions.³¹ The ESRB has emphasised the usefulness of the LEI standard for systemic risk monitoring in Recommendation ESRB/2020/12.³²
3. The development of a single access point, or at least the formulation of detailed guidelines to promote the automation of file processing activities, including downloading. The current data processing involves navigating multiple, scattered links across various CCPs’ websites. These websites are updated irregularly and use different file naming conventions so that numerous files need to be downloaded manually in different formats. Standardising access would enable both market participants and authorities to automate

²⁹ For detailed information, see [the Emir Reporting page on the ESMA website](#).

³⁰ See [Public quantitative disclosure standards for central counterparties](#), CPMI and IOSCO, February 2015.

³¹ See [Technical Guidance – Harmonisation of critical OTC derivatives data elements \(other than UTI and UPI\)](#), CPMI and IOSCO, April 2018, and the [EMIR Implementing Technical Standards](#).

³² See [Recommendation of the European Systemic Risk Board of 24 September 2020 on identifying legal entities \(ESRB/2020/12\)](#).

file downloads, significantly streamlining the process and saving on costs. If these files were provided in a machine-readable format, as proposed above, subsequent processing would be further simplified, improving efficiency and accessibility for all stakeholders involved.

4. The PQD reports should be publicly available and free of charge. Making public data available at a cost could render it much more difficult for market participants, authorities and researchers to conduct analyses, potentially leading to a lack of informed decision-making.

Proposal 6: CCPs should disclose a new standardised measure of margin responsiveness, as designed by CPMI-IOSCO, alongside the associated changes in market conditions. This disclosure can be made through the PQDs.

The ESRB welcomes and strongly supports the proposal since it represents a truly innovative addition to the disclosure framework. Quantifying and measuring the responsiveness of margins to market conditions would provide deeper insights into procyclicality and prompt the academic and policymaking communities to conduct further research and policy work in this area. The ESRB highlights the complexity inherent in measuring the responsiveness of margin models to market developments. This complexity stems not only from the challenge of identifying an appropriate volatility measure but also from that of quantifying how the model reacts to specific market conditions over a specific time frame. Therefore, further theoretical, and empirical work is required to lay the foundations for this analysis.

Each risk measure, through its distinct properties, captures various aspects of market dynamics. Value at risk (VaR) and standard deviation, while valuable, each present their own set of advantages and limitations. For instance, VaR has limitations in assessing losses that exceed a predefined threshold, offering limited insight into more extreme losses. VaR may also show a delayed response to market developments, eventually resulting in procyclicality. On the other hand, standard deviation may respond more swiftly to significant market fluctuations, but its responsiveness may diminish over time. These considerations underline the need for a diverse array of metrics to understand and evaluate the nature of market risks and the responsiveness of margin requirements.

The proposed formula (Δ initial margin in % vs Δ volatility in %) provides a standardised measure of margin responsiveness that allows for comparisons across CCPs, representing a fundamental first step in assessing responsiveness. It is worth emphasising that, regardless of the specific volatility measure employed in the denominator, this metric will primarily capture first-order effects. Understanding this limitation is crucial for accurately interpreting the results in terms of margin responsiveness. The effectiveness of a given volatility measure depends on the model's responsiveness to these new events and the timing of the integration of new information into the model. Therefore, the ESRB believes that reporting a responsiveness metric for both risk measures computed over several time periods would significantly enhance the usefulness of this metric. This would reflect the fact that the sensitivity of margin requirements to market conditions can vary markedly across different time frames. In addition, it is the ESRB's view that the application of this metric across product levels would enable a more thorough analysis. Focusing solely on the portfolio level might make it more difficult to conduct comparisons across different CCPs and jurisdictions.

Delving deeper into the concept of responsiveness, collaboration between policymakers and the academic community could substantially enrich our understanding of procyclical phenomena. A concerted effort to foster this collaboration would not only help to link theoretical insights with policy considerations but would also pave the way for innovative approaches to managing and mitigating procyclicality.

Finally, the ESRB would like to make an additional crucial point. As highlighted in the first part of this response, mitigating feedback loops between funding and market liquidity is essential for dampening margin/price spirals that may arise in times of stress. Consequently, we would welcome further research into developing and including a metric that evaluates the price impact of margin calls. This metric would capture the sensitivity of market prices, and hence their volatility, with respect to the potential sudden reduction of positions due to margin calls. This metric would serve as a starting point for quantifying the dynamic interplay between margin requirements and market price movements and for calibrating policy tools such as new-generation circuit breakers.

Proposal 7: CCPs should identify and define an analytical and governance framework, appropriate to their business lines and risk profile, for assessing responsiveness within the broader context of margin coverage and cost, with the framework and parameter choices communicated to relevant authorities. The framework can be used by CCPs and relevant authorities to regularly monitor the performance of initial margin models and trigger the review of initial margin model parameters in case of need.

The ESRB supports this proposal, noting that within the EU, the requirements set out in the proposal are already met by the existing provisions of EMIR. The proposal could nevertheless be beneficial in promoting global convergence on this matter.

Proposal 8: Where CCPs make use of discretion (e.g., expert judgement) to override model margin requirements, CCPs should:

- a. Have in place clear governance procedures defining the triggers for the use of such discretion and undertake ex post reviews where such discretion has been applied. CCPs should clearly articulate and define the instances and areas where such overrides may be warranted (including clear definitions of the key decision-makers/who can perform overrides and the extent to which these adjustments are deemed permissible without, for example, requiring a material model change). It can similarly be important that the CCP establishes clear guidelines as well as processes which enable the CCP to identify and monitor the overridden risk variable or model output.
- b. Publicly disclose relevant information regarding the scenarios where discretion may be applied, and the governance procedures used in the application of such discretion. CCPs should proactively share the governance procedures for the application of model overrides in full with relevant authorities.
- c. Publicly disclose, through additions to the PQDs, the aggregate size and duration of manual margin overrides, as compared with unadjusted initial margin requirements. The disclosure could be supported by a qualitative explanation of the reasons for the override.

The ESRB supports the proposal for CCPs to enhance transparency by publicly disclosing, through additions to the PQDs, the aggregate size and duration of manual margin overrides relative to the unadjusted initial margin requirements. Additionally, the ESRB supports the proposal to include a detailed qualitative explanation of the rationale behind the overrides. It also supports the public disclosure of pertinent information concerning the scenarios in which discretionary measures may be employed, alongside the governance procedures used in the application of such discretion. It is recommended that CCPs also actively share comprehensive details of the governance procedures relating to model overrides with the relevant authorities, ensuring a high level of transparency and accountability in the management of margin requirements.

Proposal 9: CMs should ensure their clients have sufficient understanding of their margin requirements, including the following:

- a. CMs should ensure their clients have sufficient understanding of CCP margin requirements. CMs should facilitate clients in accessing CCP-provided margin simulators.
- b. CMs should identify and define an analytical and governance framework, appropriate to their business lines and risk profile, for assessing margin responsiveness, alongside other key factors such as counterparty credit risk, when adjusting client margin requirements.
- c. CMs should provide sufficient transparency to their clients regarding the mechanism by which client add-ons are calculated. This should include documentation containing a detailed description of the calibration of any client add-ons (e.g., through the application of margin multipliers, buffers or internal margin models) and how the triggers or thresholds for their use are set. This understanding should be facilitated through the provision of CMs' own simulators, where appropriate, or private disclosures of the margin requirements clients may be subject to under different scenarios.
- d. CMs should, without the need for a client request, inform the client with appropriate notice when they are adjusting their calibration of client margin add-ons, and should provide sufficient transparency to their clients when margin requirements have been adjusted relative to those set by the CCP.
- e. CMs should disclose to their clients backward-looking information on the maximum, minimum and average differences between client margin requirements set by the CM and the margin requirements of the CCP over a defined period of time.

The ESRB views this proposal as highly relevant and has already advocated enhanced transparency in the relationship between CM and client in its 2020 report.³³ Its observations from past crises indicate that several liquidity issues, connected with unpreparedness, also arose at the client level. The ESRB has noted a lack of rules to curb the sudden increase in initial margins or add-ons, or to prevent the collateral provided from suddenly becoming ineligible. These gaps can result in severe liquidity pressures given that market participants engaging in central clearing as clients often face limited access to interbank markets or central bank facilities, operate with

³³ See Chapter 4.3 in [Mitigating the procyclicality of margins and haircuts in derivatives markets and securities financing transactions](#), ESRB, January 2020.

less sophisticated operational platforms, have reduced planning capabilities, and might rely on lower-quality collateral than CMs. Such conditions have the potential to force the liquidation of positions, exacerbating the procyclicality of margins.

Ensuring that clients are able to foresee and fulfil margin calls is crucial for the financial system's stability and integrity. However, margin calls issued by CMs to clients also fall within the bilateral sphere, which is governed by the relevant regulations. The lack of advance notice and clear explanation of potential adjustments means that clients may struggle to secure necessary funds or adjust their positions in a timely and progressive manner, with a limited impact on market liquidity, a challenge that becomes even greater under volatile market conditions where swift access to precise information is vital.

Proposal 10: CMs should disclose additional metrics to the CCPs of which they are members on a quarterly basis with a one/two-month lag.

The ESRB strongly supports this proposal and believes it would represent a key improvement to the disclosure framework. This information would enable CCPs, policymakers and authorities to better comprehend the ramifications of CCPs' margin calls amid the wider liquidity demands that CMs face. CCPs would be better positioned to evaluate the various exposures of their CMs across different CCPs, allowing them to identify significant risks associated with concentration and interconnectedness. Elements of these disclosures should be standardised and made publicly available. At the same time, consideration should be given to the proposal for CMs to transmit non-publicly available information to authorities, which are in the position to identify and assess concentration and interconnectedness risks.

The set of metrics outlined in the consultative report would benefit significantly from additional details regarding exposures to non-cleared instruments within the broader context of liquidity availability among CMs. To provide the necessary information for assessing the impact on a CM's liquidity requirements, it would be important to recognise the importance of disclosing these figures not solely in terms of their absolute values but also compared with the liquid resources of a CM and central bank reserves.

Given that this information is already in large part publicly available, albeit in varying degrees of granularity and in different formats, it is important that these disclosures by CMs be made public in a standardised format to make automation easier. The fact that the number of CMs markedly exceeds that of CCPs underscores the significance of this issue. Consequently, it is crucial to ensure standardisation and automation of the data collection process, which would otherwise generate substantial costs for all stakeholders and undermine the pivotal goal of achieving transparency. Given that CMs operate across various jurisdictions and interact with different CCPs through multiple subsidiaries, the adoption of the LEI standard is fundamentally important for accurately identifying each CM, as emphasised in ESRB Recommendation ESRB/2020/12.