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Infrastructures (CPMI) Secretariat
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By Electronic Mail: cpmi@bis.org and consultation-05-2022@iosco.org

Re: A Discussion Paper on CCPs' Practices for Addressing Non-Default Losses

Dear CPMI Secretariat and IOSCO Members,

We welcome the opportunity to comment on your discussion paper regarding central counterparty (CCP) practices to address non-default losses (NDLs) on behalf of Fermat Capital Management, LLC. Fermat Capital Management, LLC manages multiple investment strategies, including in Insurance-Linked Securities (ILS) and trade finance, on behalf of regulated investors such as insurance companies, pension plans and banks. We are one of the largest and most experienced ILS investment managers and one of the largest catastrophe bond investors in the ILS asset class.

Substantial progress has been made by CCPs in managing NDL risk by implementing the Principles for Financial Market Infrastructures (PFMI). Nevertheless, fundamental issues remain that require solutions. At the time of a significant NDL event, rapid, consequential action is required that is risky and expensive but, given the consequences to the broader financial market ecosystem, critically necessary. At the same time, during a period of crisis, conflicts between actors can arise, as can situations of moral hazard. These issues limit contingent private capital solutions to address NDL events, unless such solutions are structured in advance, are reliable and available when required to be acted upon.

To improve how CCPs respond to losses and liquidity shortfalls, contingent private capital solutions should be fully collateralized and able to quickly, reliably and transparently release funds to be either utilized directly by a CCP or used as collateral for other parties to act. As noted in the paper, the existing external financing tools discussed do not satisfy all these requirements

creating limitations when responding to NDL events. However, instruments colloquially known as catastrophe bonds, used in the reinsurance market, share all required features, and could be used by CCPs to help them respond to NDL events in a timely and predictable manner. This letter responds to consultation Question 2. It outlines the potential advantages of catastrophe bond technology and areas of research that CPMI and IOSCO should consider in order to understand how it could be successfully applied to CCPs.

Catastrophe bonds—one of the most well-known type of ILS—are fixed income instruments issued primarily by insurers and reinsurers (“re/insurers”), and increasingly by corporates and governments, to transfer exposures from potentially large losses associated with catastrophes to investors. The catastrophe bond technology was pioneered in the reinsurance sector for large natural disaster events that have a significant impact on re/insurer balance sheets—such as a major hurricane or an earthquake—and have been successfully deployed in other sectors such as for operational risks and mortgage credit risk.¹ For ILS issuers, a catastrophe bond transfers discretely modelled event risks directly to the capital markets, where capacity for such risks is greater and—of critical relevance for CCPs—obligations are fully collateralized. By transferring risks that cause the most stress on balance sheets, these bonds support the efficient functioning of the global re/insurance market by effectively providing a form of contingent private capital to re/insurers in the immediate aftermath of a large, systemic industry loss event.

In a typical bond structure, the issuer sponsors the creation of a bankruptcy remote special purpose insurer (SPI) that can enter into a risk transfer contract with the sponsor. The independently managed SPI issues the catastrophe bonds which are coupon-driven short-term floating notes with an average maturity of three to five years. These bonds are fully collateralized and designed to cover transparent modelled risk events, using independent third-party service providers to model and, when required, to monitor for possible risk events during the life of the bond. These transparent structures have strict collateral rules designed to limit unwanted counterparty or credit risks with the private capital held in trust in AAA-rated securities such as US Treasuries or in Treasury Money Market Funds by an independent trustee. If the catastrophe event criteria as set out in the bond’s offering document are met, then some or all of the bond’s collateral is passed on to the issuer helping it to pay its liabilities or losses. In the absence of a catastrophe event, the principal is redeemable at maturity by investors.

In practice, catastrophe bonds can cover one or multiple event risks, can be tranchised into different layers addressing different risk event severities and can be rated. A bond’s catastrophe event criteria can be indemnity-based, i.e., on the quantum of actual losses experienced by a sponsor, with payments triggered if losses exceed a pre-defined threshold, or on an objective third-party index that provides a good proxy for those losses, again triggering a payment if the index moves beyond a pre-define level. A catastrophe bond can be structured so that a full payment is triggered

¹ In 2021 approximately USD 20 billion of catastrophe bonds were issued, of which USD 6.2 billion were for mortgage credit risk. Source: <https://www.artemis.bm/dashboard/catastrophe-bonds-ils-issued-by-type-and-year/>

once a threshold is reached, or the payment size can be based on how much the threshold is exceeded. As timing is of the essence and lengthy and complex loss assessment processes are to be avoided, the latter index-based approach could provide advantages to CCPs. Such characteristics can also address some of issues related to the uncertainty of timing and coverage when it comes to insurance claim payouts to CCPs in the event of NDLs.

To be effective for both the sponsor and private capital investors, an underlying, objective third-party modelled index must be developed and incorporated into the bond structure. The index should provide a good proxy for losses from the NDL risk in question and correlate well with the losses experienced by a CCP from that risk. It must be produced and reported in a timely manner so that it can respond to the sponsor's capital needs if the defined catastrophe event criteria are met and must be objectively measured by a third-party (known as a Reporting Agent) in a sound, reliable, transparent and consistent manner ensuring that the data is available, trustworthy and not subject to moral hazard. Further, the index should have a data track record so that it can be modelled by an independent third party, allowing investors to assess the NDL risk in question and to establish a market price for providing contingent capital if the NDL event criteria are met.

Reliability in any plan is key and the ex-ante and fully funded nature of catastrophe bonds provides a critical advantage over other external financing mechanisms, such as lines of credit or debt financing, as the providers of that capital may be at risk in their own businesses from the same underlying set of factors or market stresses that led to a NDL, rendering them unavailable precisely when they are needed. Many financial market infrastructures are owned, operated and governed by their financial institution sponsors that are also their principal users. Catastrophe bonds create independent mechanisms that limit potential conflicts to action precisely because speed is also critical. With an objective index and a Reporting Agent meeting key requirements, catastrophe bond technology could be used to ensure payments are triggered swiftly from a specific risk, if such metrics could be appropriately measured and reported independently. Importantly, independent private capital mechanisms with these features of reliability and speed can also be used to collateralize loans from other private capital sources or governments. As CCPs refine, map and sequence their external financing response tools in the event of an NDL, we believe such technology would be an important additional financing instrument to strengthen CCP contingency plans and ensure a more robust, transparent, and orderly plan execution and/or capital replenishment.

As catastrophe event criteria will vary by CCP, a worthy area for further research would be to investigate how key catastrophe bond elements could be defined for a select set of CCPs, including identifying a Reporting Agent that can provide timely index reporting, NDL risks that could be covered, back-testing possible indexes and catastrophe event criteria to study how an NDL bond based on such features would have performed in past CCP events, as well as simulating future possible scenarios to observe how the instrument would react. We believe such analysis and examination would identify new avenues for CCPs to strengthen resilience and their abilities

to manage NDL shocks, as well as create a roadmap for how this bond technology could be tailored to meet CCP-specific needs.

We appreciate the opportunity to comment on your discussion paper and to share our experiences. We would be pleased to provide additional information or any required clarifications.

Yours sincerely,

Joanna Syroka
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