ISDA® Safe, Efficient Markets

**30 November 2020**

**BY E-MAIL AND HAND**

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Dear Sir and Madam,

**OJK Consultation Paper on Margin Requirements for Non-Centrally Cleared Derivatives**

## 1. Introduction

The International Swaps and Derivatives Association, Inc. ("**ISDA**")[1] would like to thank the Otoritas Jasa Keuangan ("**OJK**") for your continuous and ongoing engagement with us in various key regulatory and market initiatives, including discussions around the implementation of margin requirements for non-centrally cleared derivatives ("**Margin Requirements**").

We are pleased to have the opportunity to provide comments on the *Consultation Paper on Margin Requirements for Non-Centrally Cleared Derivatives*[2] ("**Consultation**") published by OJK on 31 August, 2020. We are also grateful for the discussions on the Consultation we had with the OJK via videoconference on 10 September, 2020 ("**Meeting**").

The points raised in this response to the Consultation take into account our experience and active involvement regarding the Margin Requirements with regulators and ISDA members in Asian jurisdictions such as Hong Kong, Singapore, and Australia as well as other jurisdictions across the globe such as the United States ("**US**") and those in the European Union ("**EU**"), and include feedback from derivatives market participants. ISDA has played a key role in the advocacy and implementation efforts for Margin Requirements in Asia as well as in many global jurisdictions, and we believe we are able to provide the OJK with a unique perspective on the issues faced by these jurisdictions in the implementation of Margin Requirements in Indonesia.

A central theme in our response to the Consultation is to align the OJK's Margin Requirements with those of the policy framework issued by the Basel Committee on Banking Supervision and the International Organization of Securities Commissions in April 2020[3] ("**BCBS-IOSCO Framework**"), as well as that of

[1] Since 1985, ISDA has worked to make the global derivatives markets safer and more efficient. Today, ISDA has over 925 member institutions from 75 countries. These members comprise a broad range of derivatives market participants, including corporations, investment managers, government and supranational entities, insurance companies, energy and commodities firms, and international and regional banks. In addition to market participants, members also include key components of the derivatives market infrastructure, such as exchanges, intermediaries, clearing houses and repositories, as well as law firms, accounting firms and other service providers. Information about ISDA and its activities is available on the Association's website: www.isda.org. Follow us on Twitter, LinkedIn, Facebook and YouTube.

[2] https://www.ojk.go.id/id/kanal/perbankan/implementasi-basel/Documents/Pages/Consultative-Papers/Consultative%20Paper%20Margin%20Requirement%20for%20Non%20Centrally%20Cleared%20Derivative.pdf, OJK, Consultation Paper on Margin Requirements for Non-Centrally Cleared Derivatives.

[3] https://www.bis.org/bcbs/publ/d499.pdf, BCBS-IOSCO, Margin requirements for non-centrally cleared derivatives

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other Asian and global jurisdictions, keeping in mind the overall goal of strengthening resilience in the non-centrally cleared derivatives ("**NCCDs**") market.

We note that the Consultation has been published in Bahasa Indonesia only. To facilitate feedback from our members, ISDA commissioned an English translation of the Consultation[4], and all comments provided in this response refer to the English translation. Due to the differences in grammar and legal terminologies, there may be the possibility that terms or words used in the English translation of the Consultation have different meanings or connotations from the Bahasa Indonesia original, and we welcome further discussion with OJK where such differences may be noticed. Individual members may have their own views on the Consultation and may therefore provide their comments to the OJK directly.

While the Consultation represents an important step forward for establishing a detailed set of requirements for the collection and protection of margin in the OTC derivatives market in Indonesia, we submit that it is important for the OJK to continue to focus on the practical issues relating to the implementation of any rules and the overall purpose of reducing systemic risk. Accordingly, this submission focuses on the practical concerns and risks surrounding the implementation of the Margin Requirements, as well as the harmonisation of such rules with those of other regulators globally.

## 2. General comments

While we address the specific proposals raised in the Consultation in Section 3 (*Specific Comments*) of this response, we would like to first to provide general feedback about the groundwork that needs to be done to prepare for an effective margining regime for non-cleared derivatives in Indonesia.

### *a. Close-out netting*

#### *I. The importance and benefits of close-out netting*

Close-out netting of derivative transactions under a netting agreement, such as the ISDA Master Agreement ("**ISDA MA**") is the single most important mechanism for reduction of credit risk in the derivatives market. Without close-out netting, financial institution counterparties would be required to manage their credit risk on a gross basis, which would greatly reduce liquidity and credit capacity within the system. Market and credit risk in relation to derivative transactions would also then be more difficult to manage on a gross basis.

Where there is a sufficiently high degree of legal certainty as to the enforceability of close-out netting, financial supervisors may permit it to be recognized as risk-reducing for the purposes of determining the level of regulatory capital a supervised institution must hold in respect of its derivatives positions, enhancing the efficiency of use of regulatory capital and reducing the associated cost. This is an extremely important aspect of the use of close-out netting and it is therefore critical that close-out netting be enforceable, including in the event of insolvency of a party, with a high degree of legal certainty.

#### *II. The nature and mechanism of close-out netting*

It is a global practice (including in Indonesia) to trade OTC derivatives under a netting agreement, such as the ISDA MA. The advantage of trading under the ISDA MA is that, contractually, it provides for close-out netting whereby, following an event of default or termination event:

[4] http://assets.isda.org/media/3cd23482/635d07d2.pdf, ISDA, English translation of OJK Consultation Paper on Margin Requirements for Non-Centrally Cleared Derivatives.

(i) the transactions are terminated by notice given by the non-defaulting party or, in certain circumstances, automatically;

(ii) the terminated transactions are valued at their current mark-to-market value (that is, replacement value) at or about the time of early termination; and

(iii) a net balance is calculated equal to the difference between (a) the aggregate mark-to-market value of terminated transactions "in the money" to the non-defaulting party and (b) the aggregate mark-to-market value of terminated transactions "out of the money" to the non-defaulting party. If (a) exceeds (b), the net amount is paid to the non-defaulting party. If (b) exceeds (a), the net amount is, normally, paid to the defaulting party.

This works because the all transactions under the ISDA form a single agreement between the parties such that, following an event of default or termination event, the transactions are terminated, without acceleration of the individual obligations due under those transactions, and for the obligations due under the transactions to be discharged, in consideration of a separate single obligation (calculated by reference to the market replacement values of the terminated transactions) arising under the close-out netting provision. No contractual set-off is involved in this principal close-out netting mechanism, since set-off can only occur if there is more than one obligation, and only one obligation arises under the close-out provision. If amounts have become due prior to the early termination of the transactions, they will normally be included in the final net calculation, and so contractual set-off occurs in relation to those, but only to that limited extent.

Close-out netting can be distinguished from payment netting where the purpose of payment netting is to facilitate efficient settlement and reduce settlement risk by combining offsetting cash flow obligations between two parties on a given day in a given currency into a single net payable or receivable. As payment netting operates prior to a default or termination event, its enforceability does not normally need to be protected by legislation.

*III. Close-out netting under Indonesian law*

A key issue for market participants when trading derivatives with a counterparty from a jurisdiction is to establish whether close-out netting is enforceable upon the occurrence of an event of default or termination event under the netting agreement both:

(i) prior to ("**pre-insolvency enforceability**"); and

(ii) following ("**post-insolvency enforceability**"),

the commencing of insolvency proceedings, in accordance with the terms of the netting agreement.

Note that enforceability under the bankruptcy laws of the jurisdiction where the counterparty is located is critical since, regardless of the law selected to govern the contract, local insolvency law in an insolvent party's jurisdiction will always override in the event of an insolvency and there may be mandatory insolvency rules that come into operation that could potentially disrupt a close-out netting arrangement.

Please note that "enforceability" in this context relates to the ability to come up with a net sum, not to correctness of the determined amount. Parties may from time to time have commercial disagreements concerning the valuation of derivatives, as they can for other financial instruments, but these are not related to the question of whether close-out netting is enforceable. Similarly, the issue of the enforceability of close-out netting is separate from the issue of the legal capacity of a party to enter into derivatives transactions.

As we understand it, close-out netting should be enforceable on a pre-insolvency basis under the laws of Indonesia as Indonesian courts recognize the freedom of contract as a matter of contractual law.

However, there are concerns with respect of the post-insolvency enforceability of close-out netting in Indonesia. As we understand it, mandatory insolvency laws in Indonesia (including Law No. 37 of 2004 on Bankruptcy and Suspension of Payment ("**Indonesian Bankruptcy Law**") may impact the non-defaulting party's ability to terminate and apply the close-out netting provisions including a risk of whether court approval may be required to apply close-out netting[5], a receiver in bankruptcy proceedings may have the right to or power to decide whether or not to continue any transactions between the bankrupt debtor and its counterparties[6].

*IV. The importance of close-out netting for margin requirements*

Under the BCBS-IOSCO Framework, the exchange of variation margin ("**VM**") on a net basis is subject to the requirement that *"the applicable netting agreements used by market participants … be effective under the laws of the relevant jurisdictions and supported by periodically updated legal opinions"*[7], and this requirement is also reflected in paragraph 38 of the Consultation.

Based on the concerns outlined above, the Indonesian legal opinion commissioned by ISDA in respect of the enforceability of close out netting in Indonesia may not be sufficient to comply with such a requirement, and as a result, market participants may need to exchange VM on a gross basis.

We would like to highlight that exchanging VM on a gross (and not net) basis would result in significantly higher costs and would be out of step with global moves towards incentivizing bilateral margining of NCCDs.

It is therefore essential for the OJK to work towards greater consistency in the application of close-out netting in Indonesia and align the Indonesian margin requirements with global standards in fulfilment of its G20 commitments. We would also like to highlight that collateralization of transactions on a gross basis would also compound counterparty credit exposure. An illustrative example outlining such scenarios is provided in **Annex 1** of this response.

*V. Request to OJK*

Since 2017, ISDA has engaged with Bank Indonesia ("**BI**") on legislative measures to support the enforceability of close out netting, and on 1 February, 2018 Bank Indonesia published a press release to reiterate their support for strengthening the legal basis for financial market development and a commitment to work toward legal certainty for close out netting enforceability in Indonesia[8].

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[5] Article 51 of the Indonesian Bankruptcy Law.
[6] Article 36 of the Indonesian Bankruptcy Law.
[7] https://www.bis.org/bcbs/publ/d499.pdf, BCBS-IOSCO, Margin requirements for non-centrally cleared derivatives, Paragraph 3(ii), Page 15.
[8] http://www.bi.go.id/en/ruang-media/info-terbaru/Pages/BI-Dukung-Penguatan-Landasan-Hukum-terkait-Pendalaman-Pasar-Keuangan.aspx, Bank Indonesia, Bank Indonesia Supports Strengthening of the Legal Basis for Financial Market Development.

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Subsequently, in October 2018 ISDA published the 2018 Model Netting Act and Guide[9] along with a Bahasa Indonesia translation[10] which were shared with BI, along with Bahasa Indonesia translations of the ISDA Research Note on the importance of close out netting[11] and ISDA memorandum on the benefits of close-out netting[12]. These documents were also shared with OJK following the Meeting, and we would be happy to discuss these documents as well as the benefits and importance of close-out netting in more detail with OJK and BI.

ISDA and our members believe that introduction of netting legislation offers the most effective and holistic solution to the current issues facing the enforceability of close out netting for the Indonesian market, and we are happy to support and assist with this process. ISDA actively promotes netting legislation on a global basis and maintains a list[13] representing those jurisdictions where members have informed ISDA that netting legislation has been adopted[14]. Some of these jurisdictions, especially those in the Asia Pacific region, may be of interest from the Indonesian perspective, and we would be pleased to discuss specific legislative approaches that have been used to confirm the enforceability of close-out netting by these jurisdictions in more detail.

We urge OJK to work with BI and the relevant other policymakers in Indonesia to introduce a legislative solution to provide certainty in respect of the enforceability of close out netting in Indonesia, prior to implementing the Margin Requirements proposed in the Consultation.

b. *Objectives of margin requirements and central clearing*

As stated in the BCBS-IOSCO Framework, one of the objectives of margin requirements for NCCDs is to reduce systemic risks and promote central clearing of standardised derivatives, and central clearing is one of the four elements of the G20's original 2009 post-crisis reform program. This has also been highlighted as one of OJK's objectives in the Consultation.

However, in order to promote central clearing, there needs to be a derivatives central counterparty ("**CCP**") that is internationally recognized as a qualified central counterparty ("**QCCP**") to which international firms can become direct clearing members. Such QCCP recognition entails the third-country CCPs registration or recognition from multiple global regulators, such as receiving registration as a derivatives clearing organization ("**DCO**") with the Commodities Futures Trading Commission ("**CFTC**") (or, alternatively, application for DCO exemption)[15]. It will also entail receiving recognition from the European Securities and Markets Authority ("**ESMA**") to offer services and activities in accordance the European Market Infrastructure Regulation ("**EMIR**")[16],

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[9] https://www.isda.org/a/X2dEE/FINAL_2018-ISDA-Model-Netting-Act-and-Guide_Oct15.pdf, ISDA, 2018 Model Netting Act and Guide.
[10] https://www.isda.org/a/VDyTE/2018-ISDA-Model-Netting-Act-and-Guide-%E2%80%93-Bahasa-Indonesia-translation.pdf, ISDA, 2018 Model Netting Act and Guide – Bahasa Indonesia translation.
[11] http://assets.isda.org/media/14f74a0c/cb2ed93a-pdf/, ISDA, Importance of close-out netting – Bahasa Indonesia translation.
[12] http://assets.isda.org/media/6010c365/1e4e9b54-pdf/, ISDA, Benefits of close-out netting – Bahasa Indonesia translation.
[13] https://www.isda.org/2020/07/03/status-of-netting-legislation/, ISDA, Status of Netting Legislation (as on 23 September, 2020).
[14] Please note that this list is indicative and subject to change, and does not purport to be a comprehensive summary of all jurisdictions globally that may have adopted netting legislation.
[15] https://www.ecfr.gov/cgi-bin/text-idx?SID=94d8efe9165bc8f2fc7b749dde1082cb&mc=true&node=pt17.1.39&rgn=div5, CFTC, Electronic Code of Federal Regulations, Part 39 – DCO.
[16] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32012R0648, European Parliament and Council, Regulation (EU) No 648/2012 on OTC derivatives, central counterparties and trade repositories.

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and recognition under the Temporary Recognition Regime of the Bank of England[17]. Without the relevant QCCP recognition, global banks (including those operating in Indonesia) will not be able to clear on the third-country CCP.

Further, the derivatives CCP will also need to offer clearing in a wide breadth of liquid, standardized products, so as to offer an alternative to OTC derivative margining, and offer client clearing services so that financial market end users can also clear, instead of margining, OTC derivatives. In this regard, we note that the availability and use of clearing is currently non-existent in Indonesia and there is a lack of derivative CCPs.

We note that on 2 October, 2019 BI published Regulation Number 21/11/PBI/2019 on the establishment CCPs for derivative transactions[18]. We would like to highlight that mandatory clearing requirements might not be an appropriate tool in jurisdictions with a relatively small derivatives market or exchange controls, such as Indonesia. Such markets might not have the degree of standardisation across derivative contracts or sufficient market depth to establish a well-managed, cost efficient CCP. ISDA has published a whitepaper on clearing in smaller or closed jurisdictions that provides more details on the main issues we have highlighted here[19].

As such, in order to enable the development of more liquid and standardised derivatives market and consequently promote establishment of CCPs in Indonesia, we urge OJK to work with BI and the other relevant policy makers in Indonesia to introduce a legislative solution to provide certainty in respect of the enforceability of close-out netting in Indonesia. Furthermore, this should be done prior to establishing any clearing mandate.

c. *Excessively conservative initial margining requirements*

I. *Issues with mandating the use of the standardized IM schedule*

In an effort to apply uniform application of margin requirements, OJK has proposed in the Consultation to only permit use of the standardized initial margin ("**IM**") schedule as an IM calculation method, and does not allow the use of a quantitative model in calculating IM.

Our concern is that the standardized IM schedule is an excessively blunt calculation tool that is not risk sensitive. The margin values it generates will render the economics of almost all OTC derivative trades unattractive, and combined with the lack of facilities to clear these trades, activity in many useful hedging products will substantially cease.

Mandating the use of a standardized IM schedule which produces results that are substantially higher than the commonly used IM model, such as the ISDA Standard Initial Margin Model ("**ISDA SIMM™**"), could render derivatives pricing in Indonesia to a level that would discourage hedging activities, entail a significant increase in the funding requirements of banks, and cause changes in bank trading behaviour resulting in market liquidity fragmentation. This would ultimately have the unintended consequence of impeding economic growth.

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17 https://www.bankofengland.co.uk/-/media/boe/files/eu-withdrawal/practical-guidance-for-applications-for-recognition-and-entry-into-temporary-recognition-regime.pdf?la=en&hash=F5929716EC865A13C34A227BD3B5D6F7E473D13F, Bank of England, Practical guidance for applications for recognition and entry into the Temporary Recognition Regime.
18 https://www.bi.go.id/en/peraturan/moneter/Pages/PBI_211119.aspx, BI, Bank Indonesia Regulation Number 21/11/PBI/2019 On Central Counterparties For Over-The-Counter Interest Rate And Exchange Rate Derivative Transactions.
19 https://www.isda.org/a/tsvEE/ITC-Small-Jurisdictions-final.pdf, ISDA, Whitepaper series "Incentives to Clear" Clearing in Smaller or Closed Jurisdictions.

It is also important to note that this proposal from OJK is inconsistent with the BCBS-IOSCO Framework and the margin regimes in all other jurisdictions.

*II. IM models such as ISDA SIMM*

As such, we request that OJK consider recognizing the use of IM models, such as, the ISDA SIMM, which is designed to be conservative in order to meet the 10-day 99% confidence interval requirement required by the BCBS-IOSCO Framework, and at the same time, does support uniform implementation of IM given that it is a standardized model.

Further, ISDA SIMM has been designed to meet certain prescribed criteria and is based on first order sensitivities. The ISDA SIMM is available to all market participants, and is a simple model derived from the Sensitivity Based Approach under the BCBS market risk framework. It is easy to use and is designed to produce conservative results. The IM calculated under such model would still provide a prudent buffer against the risks incurred without subjecting parties to inordinately high level of margin. Use of the ISDA SIMM thus provides market participants a conservative yet accurate approximation of the risks incurred, without the disadvantage of reducing liquidity.

In addition, the ISDA SIMM operates under a governance framework[20], which is an essential requirement for IM models under the BCBS-IOSCO Framework. As part of this governance framework, the ISDA SIMM Governance Forum provides regulators with a Quarterly Monitoring Report, which includes:
(i) Quarterly escalation of shortfalls and reconciliation issues;
(ii) Reporting results (data requested & participating groups);
(iii) ISDA SIMM overall health check (or average backtesting exceedance rate);
(iv) ISDA SIMM early warning checks; and
(v) Portfolio descriptions and top five portfolios by shortfall amount.

Together with the annual ISDA SIMM backtesting exercise, the ISDA SIMM Quarterly Monitoring exercise forms the cornerstone of the evidence-based approach used to identify, assess and agree potential changes in order to ensure the ISDA SIMM meets or exceeds the 10-day 99% confidence interval requirement. As mentioned above, ISDA SIMM users report ISDA SIMM shortfalls and reconciliation issues, and OJK will have complete transparency and insight into any issues and improvements identified with the ISDA SIMM.

We would be happy to set up another meeting to further discuss with you the mechanics of how the ISDA SIMM works, together with the governance and monitoring framework.

*III. Request to OJK*

Therefore, we request that OJK remove the requirement to use only the standardized IM schedule, and allow the use of IM models including the ISDA SIMM.

*d. Broad scope of covered entities*

The Consultation provides for a broad scope of covered entities, including non-financial institutions and corporates.

[20]https://www.isda.org/a/7FiDE/isda-simm-governance-framework-19-september-2017-public.pdf, ISDA, ISDA SIMM Governance Framework (published on 19 September, 2017).

We would like to highlight that the BCBS-IOSCO Framework is applicable only to financial institutions and systemically important non-financial entities. In this respect, we note that the scope of entities subject to the margin rules of each jurisdiction vary from one to another, in particular when it comes to corporates. For example, the margin rules in the US, Singapore and Australia are not applicable to corporates whereas the margin rules in the EU and Hong Kong cover corporates which are considered to be systemically important, defined by a minimum notional threshold.

Non-financial institutions and corporates in Indonesia are unlikely to have the operational capacity or infrastructure for the exchange of margin, nor do they have access to clearing. Applying the Margin Requirements to non-financial institutions and corporates would severely limit such entities' access to the derivatives markets and their ability to hedge risk, and therefore we would request OJK to consider excluding non-financial institutions and corporates from the Margin Requirements.

*e. Lack of onshore custodial providers that comply with IM requirements*

In order to satisfy the IM segregation requirements under global standards, counterparties have to enter into a arrangements with a third party or triparty custodian to establish the conditions under which a collateral giver or taker could access the collateral. We would like to remind OJK that the development of such documentation takes a substantive amount of time and industry coordination.

Such documentation only takes into account the margining requirements of those jurisdictions that have finalized their rules, and thus currently does not take into account the margining requirements of Indonesia. This means that covered entities would not be able to leverage on such documentation if the OJK Margin Requirements were to be substantively different from global standards.

Based on the understanding of our members, collateral exchange with respect to OTC derivatives transactions is not a common practice in Indonesia. Most derivatives market participants, especially local entities, lack understanding of how margining requirements would apply and the operational infrastructure to process collateral transfers. The current custodial infrastructure is underdeveloped, especially for the purpose of meeting the IM segregation requirements.

Given the foregoing, and particularly to facilitate the exchange of Indonesian Rupiah-denominated collateral, we consider that there is a need for the establishment of one or more third party custodial service provider(s) in Indonesia that have infrastructure set up to comply with the IM requirements under the Margin Requirements *prior to* the effective date of the Margin Requirements. Further, any third party custodial infrastructure established in Indonesia should also allow Indonesian branches of foreign banks to comply with the IM segregation and other requirements under the margin rules of their home jurisdictions (e.g., requirements in relation to credit quality of the custodian and account structures).

Therefore, we would like to remind OJK that time should be allowed for the development of such IM third party custodial service provider(s) in Indonesia prior to the effective date of the Margin Requirements.

*f. Impact of data localization requirements on collateral operations*

Given the cross-border nature of the derivatives market, many banks manage their collateral operations for a particular region from a single location. However, we understand that the OJK data localization regulations[21] for commercial banks only allows banks to use systems that run from offshore data centers if they submit to overly onerous regulatory approval requirements. Such requirements may discourage banks from implementing any kind of sophisticated collateral management processes or systems in Indonesia, and we request that OJK streamline the approval conditions to permit centralized collateral operations for the purposes of these Margin Requirements.

g. *Implementation timeline*

In-scope market participants will require substantial operational resources and time to implement the Margin Requirements. Accordingly, we request that the OJK allow sufficient time prior to the compliance date of the Margin Requirements for market participants to undertake the necessary preparation, such as to repaper all agreements to regulatory-compliant documentation as well as put in place processes from an operational and infrastructure standpoint to enable the calculation and exchange of margin.

We urge the OJK to address the concerns we have highlighted above before implementing Margin Requirements, to ensure that concerns around the enforceability of close out netting are addressed and that the margin requirements in Indonesia are aligned with the BCBS-IOSCO Framework and with global margin rules to ensure that there is no unintended consequence of market liquidity fragmentation, disincentivization of hedging activities, or negative impact on economic growth.

## 3. Specific Comments

For ease of reference, the headings and paragraph numbers used below correspond to those used in the Consultation.

a. *Scope of Regulation - Instruments Regulated (Element 1)*

I. *Physically-settled FX forwards and swaps*

ISDA welcomes the exemption of physically-settled foreign exchange ("**FX**") forwards and swaps from the IM requirements as set out in paragraph 8 of the Consultation. However, OJK indicates that VM requirements will apply to physically-settled FX forwards and swaps.

Physically-settled FX forwards and swaps are exempted from VM requirements under the final US margin rules as well as in Singapore, Korea, Hong Kong and Australia. We request that the OJK take an approach which is consistent with other jurisdictions and exempt physically-settled foreign exchange forwards and swaps from VM requirements as well.

Further, to be consistent with the margin requirements in Singapore, Korea, Hong Kong and Australia, ISDA requests that OJK also expressly excludes the following transactions from both VM and IM Margin Requirements:

(i) FX spot transactions, and clarify that overnight FX swaps or deliverable FX forwards with a shorter settlement date than that for spot trades would be included as spot or FX forward trades; and

(ii) the FX components embedded in cross-currency swaps that are associated with the exchange of principal.

[21] https://www.ojk.go.id/id/kanal/perbankan/regulasi/peraturan-ojk/Documents/Pages/POJK-tentang-Penerapan-Manajemen-Risiko-dalam-Penggunaan-Teknologi-Informasi-Oleh-Bank-Umum/POJK%20MRTI.pdf, OJK, POJK Nomor 38/POJK.03/2016.

*II. Equity Options*

ISDA would like to request that OJK also exclude single-stock options, equity basket options and equity index options from the margin requirements to avoid an unlevel playing field for Indonesian market participants.

This would be consistent with jurisdictions that have not implemented margin requirements for single-stock options, equity basket options and equity index options, or specified that these are out of scope of their relevant margin rules; or have at least introduced temporary derogations or granted permanent exemptions for these transactions. For example, in Singapore, the Monetary Authority of Singapore has released guidelines exempting equity options and equity index options from the scope of its margin rules entirely[22]. Similarly, in the US, equity options and equity index options are not addressed within the scope of Dodd Frank Title VII, and regulatory margin requirements do not in practice apply to swap dealers under US regulation.

Imposing margin requirements in relation to equity options will have a disproportionate impact for smaller counterparties coming within the scope of the Margin Requirements, potentially leading entities that currently use equity options (to the extent that they are permitted) for hedging and risk mitigation to cease trading these products due to the cost increase.

*III. Permitted derivative products*

As an alternative to specifying which transactions are exempt from the Margin Requirements, to facilitate ease of implementation of the Margin Requirements and to eliminate any uncertainty, we suggest that OJK specify a list of the derivative products to which the proposed Margin Requirements will apply to.

*b. Scope of Regulation – Scope of Application (Element 2)*

Paragraph 16 of the Consultation states that the detailed definition to financial service institutions and non-financial entities will be determined by subsequent regulation by OJK. We welcome the future clarification on this and would like to make the following suggestions when defining which entities are in scope.

*I. Exempting corporates and non-financial entities*

Paragraph 10 of the Consultation indicates that Margin Requirements will apply to all financial and non-financial institutions. As highlighted in paragraph 1(d) of this response and for the reasons enumerated, we reiterate our request for OJK to exempt corporates and non-financial entities from Margin Requirements.

If however, OJK considers that corporates and/or non-financial entities should be included, we would request that the OJK include those corporates and/or non-financial entities which are systemically important defined by a certain threshold. For example, under the Hong

[22] https://www.mas.gov.sg/-/media/MAS/Regulations-and-Financial-Stability/Regulations-Guidance-and-Licensing/Securities-Futures-and-Fund-Management/Regulations-Guidance-and-Licensing/Guidelines/Guidelines-on-Margin-Requirements-for-NonCentrally-Cleared-OTC-Derivatives-Contracts-8-Apr-2020.pdf, MAS, Guidelines on Margin Requirements for Non-Centrally Cleared OTC Derivatives Contracts, Paragraph 4.2(f), Page 6.

Kong margin rules, only significant non-financial counterparties that have an average aggregate notional amount of NCCDs exceeding HKD 60 billion are covered entities.

*II. Hedging exemption*

If corporates are to be included as an in-scope counterparty, we request that the OJK exempt transactions undertaken by those corporates to hedge underlying business risks from Margin Requirements, in line with other global jurisdictions. Requiring non-financial end users who transact in derivatives to hedge underlying business risk to exchange margin may discourage such entities from entering into derivative trades for genuine business purposes if the cost of hedging is substantially increased for them or operationally burdensome. This could have the unintended consequence of disincentivizing legitimate or risk-reducing hedging activities.

*III. Exempt entities*

We welcome OJK's statement in paragraph 14 of the Consultation which indicates that central banks, governments (including public sector entities), multilateral development banks and the Bank for International Settlements are not covered entities for the purposes of the rules. However, we would like to request that the OJK expressly clarify this exemption also includes *foreign* central banks, *foreign* governments, and *foreign* public sector entities.

Given the footnotes note that the exemption list is subject to national discretion, for clarity, we request that OJK to provide a comprehensive list of regulated entities that will be subject to Margin Requirements.

*IV. Regulated entities*

We note that Paragraph 14 refers to "*regulated entities*" which are "*all financial service institutions and non-financial entities*", and then paragraph 16 mentions that the "*framework will only apply to non-centrally cleared derivative transactions performed between two entities regulated by these requirements*".

In other jurisdictions, such as Hong Kong, the margin rules only apply to its locally regulated financial institution (the "**AI**"), which is distinguished from the "*covered entity*", which are the AI's counterparties to whose derivatives transactions are included in the thresholds.

We would like to request that OJK clarify that the intention is that the margin requirements only applies to transactions (provided other threshold requirements are met) where *both* parties are *Indonesian regulated* financial service institutions and non-financial entities.

As such, we would be grateful if OJK clarify that where any of the "regulated entities" trade derivatives with a non-regulated entity or foreign-regulated entity, such transactions are not included in the thresholds for applying the Margin Requirements.

*V. Definition of "cleared"*

For clarity as to the application of the Margin Requirements, we suggest that OJK provide a definition for "non-centrally cleared derivatives".

Examples of approaches used other jurisdictions are set out below:

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(i) Hong Kong: an OTC derivative that is not cleared though an entity which, for the purposes of clearing and settling trades in the contracts, interposes itself between the counterparties to the contracts by becoming the buyer to every seller and the seller to every buyer under the contracts[23];

(ii) Singapore: a derivatives contract that is not, or is not intended to be, cleared or settled by a person operating a clearing facility through which parties to a contract substitute, through novation or otherwise, the credit of the person operating the clearing facility for the credit of the parties[24];

(iii) Australia*:* a derivative that is not cleared by a clearing house that interposes itself between counterparties to contracts traded in one or more financial markets, becoming the buyer to every seller and the seller to every buyer. Such clearing house becomes a counterparty to trades with market participants through novation, an open offer system, or another legally binding arrangement[25].

*c. Minimum Amounts and Methodologies for Calculation of Initial Margin and Variation Margin (Element 3)*

*I. IM Models*

Paragraph 28 indicates that OJK will mandate the use of the standardized IM schedule for all IM calculations. Yet paragraphs 23-27 of the Consultation discuss the use of IM quantitative models in a great level of detail, which we hope is an indication that OJK may consider using IM quantitative models as well.

As highlighted in paragraph 2(c) above, we have concerns with using the standardized IM schedule and advocate for the use of IM Models, such as ISDA SIMM.

In addition to the points made in paragraph 2(c) above on the ISDA SIMM, we would also add that ISDA SIMM has been approved by regulators globally and is used broadly among market participants.

Accordingly, we request that OJK allow market participants in Indonesia to use industry-wide standard IM models such as the ISDA SIMM for IM calculations. Further, in line with the approach followed in other jurisdictions, we suggest that market participants may use the ISDA SIMM following a one-off IM model notification to the OJK, and that such IM model notification will cover all portfolios for which the parties agree to use ISDA SIMM.

*II. Add-Ons*

Paragraph 39 mentions that that OJK will give room for "supervisors" to change the Margin Requirements to be more conservative than the one determined in this Consultation in

[23] https://www.hkma.gov.hk/media/eng/doc/key-information/guidelines-and-circular/2020/20200911e1a1.pdf, HKMA, Supervisory Policy Manual CR-G-14, Non-centrally Cleared OTC Derivatives Transactions - Margin and Other Risk Mitigation Standards

[24] https://www.mas.gov.sg/-/media/MAS/Regulations-and-Financial-Stability/Regulations-Guidance-and-Licensing/Securities-Futures-and-Fund-Management/Regulations-Guidance-and-Licensing/Guidelines/Guidelines-on-Margin-Requirements-for-NonCentrally-Cleared-OTC-Derivatives-Contracts-8-Apr-2020.pdf, MAS, Guidelines on Margin Requirements for Non-Centrally Cleared OTC Derivatives Contracts, Paragraph 4.2(f), Page 6.

[25] https://www.apra.gov.au/sites/default/files/prudential_standard_cps_226_margining_and_risk_mitigation_for_non-centrally_cleared_derivatives.pdf, APRA, Prudential Standard CPS 226, Margining and risk mitigation for non-centrally cleared derivatives.

order to achieve certain results such as limiting the build-up of leverage and the expansion of banks' balance sheets, including the determination of an "add-on" on top of the baseline margin level.

Firstly, we would be grateful to the OJK to clarify the meaning of the term "supervisors", as the Consultation indicates OJK as the only supervising authority.

Secondly, in respect of the possibility of an "add-on", while this is in discussed in paragraph 3(iii) of the BCBS-IOSCO Framework[26], the same paragraph indicates that *"although no conclusions have been reached on this issue, the BCBS and IOSCO continue to give further consideration to the coordination issues that may arise in this respect"*. We request that OJK coordinate implementation of such an "add-on" with BCBS-IOSCO and other regulators globally after further consultation with market participants, and that such "add-on", if implemented, be applied on a case-by-case basis.

It is also important to note that implementation of such an "add-on" would create legal uncertainty for counterparties, especially if such "add-ons" were to be applied retrospectively.

*III. Settlement timelines*

Our understanding is that settlement timelines for the exchange of VM & IM has not yet been specified in the Consultation.

Given the cross-border nature of derivative markets and the fact that many market participants have collateral operations outside of Indonesia, we request that OJK allow for the exchange of margin on at least a T+3 basis as an outer limit. This will ensure that the exchange of VM & IM will not cause significant operational issues and will also align with the requirements of other jurisdictions in Asia such as Hong Kong and Singapore. For example, the margin settlement deadlines of other jurisdictions are provided in Table 1 below.

| Element | South Korea | Hong Kong | Singapore | Australia |
|---|---|---|---|---|
| **VM Settlement** | Calculation, call, and settlement of VM cannot exceed three local business days from the trade date (T+3). | VM must be called within T+1 and collected within 2 business days from when VM is called. | VM should be exchanged no later than three local business days from the transaction date (T+3). | VM settlement must be conducted promptly. |
| **IM Settlement** | Calculation, call, and settlement of IM cannot exceed three local business days from the date when the obligation to exchange margin arose (T+3). | IM must be called within T+1 and collected within 2 business days from when IM is called. | IM should be called no later than the end of the next local business day (T+1). IM should be exchanged no later than three local business days from the transaction date (T+3). | IM must be called at the outset of a transaction and on a regular and consistent basis upon changes in potential future exposure. Settlement of IM amounts must be prompt. |

*Table 1: Comparison of margin settlement deadlines for Asian jurisdictions*

[26] https://www.bis.org/bcbs/publ/d499.pdf, BCBS-IOSCO, Margin requirements for non-centrally cleared derivatives, Paragraph 3(iii), Page 16.

d. *Eligible Collateral for Margin (Element 4) & Appendix B*

I. *Types of eligible collateral - VM and IM*

We note that paragraph 42 and Appendix B of the Consultation outlines the list of eligible collateral that can be exchanged under the Margin Requirements, and we request OJK explicitly confirms that this list of eligible collateral will be applicable for both VM & IM.

II. *Types of eligible collateral - term*

The types of eligible collateral set out in paragraph 42 and Appendix B of the Consultation require high quality government and central bank securities, high quality corporate bonds, and high quality covered bonds to be of a "*term of which is longer than the term of the derivatives contract*".

It is important to note that margin is exchanged on a portfolio basis rather than on a per transaction/derivatives contract basis, and hence it will be difficult for market participants to ensure that the collateral meets such criteria.

Such a requirement is also not in line with the BCBS-IOSCO Framework, and we therefore request that OJK remove such criteria from the eligible collateral requirements. For a comprehensive overview of eligible collateral, please refer to the ISDA table comparing the eligible collateral across 16 jurisdictions globally, along with the associated haircuts[27].

III. *Types of eligible collateral - FX haircut*

Furthermore, paragraph 42 of the Consultation notes that where the eligible collateral is in a foreign currency having high liquidity, as appropriate haircut should apply to reflect the inherent FX risks. To be consistent with the BCBS-IOSCO framework and other jurisdictions, this is usually phrased where the currency of the collateral is different from the settlement "termination" currency of the relevant contract governing the transactions. We would request that OJK also adopt a similar formulation for applying the FX haircut. OJK may also consider disapplying the FX haircut for cash that is provided as collateral for VM, which is the approach under the margin rules in Singapore, Hong Kong, Australia and Korea.

IV. *Standardised haircut schedule*

The standardized haircut schedule in Appendix B specifies the haircut for high quality government and central bank securities, and high quality corporate bonds or covered bonds with residual maturities of:

(i) less than 1 year;
(ii) between 1 and 5 years; and
(iii) greater than 5 years.

However, it is not explicitly clear which asset class, securities with a maturity of *equal to* 1 year or 5 years falls into. We would be grateful if OJK could clarify this.

[27] https://www.isda.org/a/Z9uTE/Eligible-Collateral-Comparison-3.21.20.pdf, ISDA, Eligible Collateral Comparison by Jurisdiction (as on 21 March, 2020).

*e. Treatment of Provided Initial Margin (Element 5)*

*I. Rehypothecation, Segregation and reporting*

While we acknowledge there is a need to segregate IM and to limit the ability to re-hypothecate collateral received as IM, such segregation and re-hypothecation requirements do not apply to VM under the BCBS-IOSCO Framework. Such requirements restricting re-hypothecation of VM are also not consistent with the margin rules of other jurisdictions globally (including Singapore, Hong Kong, Australia), which generally allow re-hypothecation of VM without restrictions without any requirement of segregation. Not allowing re-hypothecation of VM may affect the pricing of derivatives and ultimately translate into increased hedging costs for end users.

Accordingly, we request that the OJK permit re-hypothecation of VM and to not require that VM be segregated, to allow for a more efficient use of collateral and to free up liquidity of such collateral.

Further, paragraph 55 requires that the level and volume of re-hypothecation of collateral should be reported to OJK. We are not aware of any other regulators imposing such requirements, and this will represent a substantial administrative burden for firms to implement. Therefore, we request that OJK remove the requirement to report the level and volume of re-hypothecation.

*f. Treatment of Transactions with Affiliates (Element 6)*

We understand from paragraph 56 & 57 of the Consultation that OJK intends to exempt transactions with affiliates from the scope of Margin Requirements and may review and implement these requirements at a later stage.
Given that margin thresholds are considered in respect of consolidated groups, generally inter-affiliate transactions should not create additional systemic risk or counterparty risk, we request that OJK provide explicit confirmation that transactions with affiliates will be exempted from the scope of Margin Requirements.

If OJK intends to include transactions with affiliates in the future, we request that OJK consult with market participants prior to such implementation.

*g. Interaction of National Regimes in Cross-Border Transactions (Element 7)*

*I. Substituted compliance*

ISDA commends OJK for considering the interaction of national regimes in cross-border transactions in the Consultation, and for aligning with principle 7 of the BCBS-IOSCO Framework[28] which was formulated to address the application of duplicative rule sets in a cross-border context where a foreign entity (or its local branch) trades with a local entity.

However, we would like to seek further clarify on the application of substituted compliance under paragraph 59.

In particular, we request OJK explicitly allow full substituted compliance in line with other

[28] https://www.bis.org/bcbs/publ/d499.pdf, BCBS-IOSCO, Margin requirements for non-centrally cleared derivatives, Page 23, Paragraph 7(i).

global regulators, including those in Asia such as Hong Kong, Singapore, and Australia, such that:

i. regulated subsidiaries or branches of foreign financial institutions are allowed to comply with the foreign margin rules that are deemed or assessed to be comparable, instead of the Margin Requirements when trading with local Indonesian entities, or other Indonesian subsidiaries or branches of foreign financial institutions; and
ii. local regulated entities are allowed to comply with the foreign margin rules to which their counterparties, including regulated local subsidiaries or branches of foreign financial institutions, are subject to if such foreign margin rules are deemed or assessed to be comparable.

*II. Comparable jurisdictions*

To facilitate ease of implementation, we also request that OJK explicitly set out the jurisdictions to which their margin rules are deemed or assessed to be comparable to the Margin Requirements and may be applied as substituted compliance under the Margin Requirements.

To this end, we request that OJK follow a similar approach to Singapore and Hong Kong and state that all BCBS-IOSCO jurisdictions are comparable under paragraph 60 of the Consultation. Alternatively, we request that OJK set out a list of comparable jurisdictions that is available prior to the Margin Requirements becoming effective. Such an approach will assist OJK in achieving a workable cross-border framework, which is intended in paragraph 58 of the Consultation.

*h. Phase-in of Implementation (Element 8)*

*I. Retrospective application*

We understand from paragraph 63 of the Consultation that OJK proposes to apply VM retrospectively from 1 March, 2017.

Similarly, paragraphs 65-67 indicate a phase-in schedule for IM between 1 September, 2019 -1 September, 2022. However, we understand from our Meeting that OJK intends to implement the Margin Requirements after 2022, which implies that IM will also be applied retrospectively.

Such an approach is not aligned with regulators in other jurisdictions, where regulators have generally not applied VM or IM requirements to NCCD transactions entered into prior to the effective date of such Margin Requirements (“**Legacy Derivatives**”).

Additionally, at the time the Legacy Derivatives were entered into, counterparties did not contemplate the application of Margin Requirements, and would not have factored the need to post margin into the pricing of the contracts. Requiring Margin Requirements for Legacy Derivatives would greatly affect the economics of the Legacy Derivatives and will require a value transfer between counterparties which may not be easily agreed to. Accordingly, to be consistent with the other jurisdictions and to reduce any unnecessary burden upon market participants, we request that OJK only require Margin Requirements to be applied to new NCCD contracts entered into on or after the effective date of the Margin Requirements, and exclude Legacy Derivatives from Margin Requirements.

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*II. Genuine amendments to Legacy Derivatives*

In line with the BCBS-IOSCO Framework and other jurisdictions,[29] we would also like to request that OJK include a paragraph to confirm that genuine amendments to Legacy Derivatives do not qualify as a new NCCD contract and therefore will not bring the transaction into the scope. This is to reduce any unnecessarily operational burden on market participants and preserves the intention that Legacy Derivatives are not in scope of the Margin Requirements.

Further, we seek OJK's specific confirmation that Legacy Derivatives with the following amendments will not be subject to the margin requirements:

i. Trades amended in a non-material manner (or arising from life-cycle events): so long as an amendment does not create any new significant exposure under the Legacy Derivatives, the act of amending the derivative (or the occurrence of a life-cycle event) should not bring it within the scope of the Margin Requirements;

ii. New derivatives that result from multilateral portfolio compression: portfolio compression is designed to reduce complexity in the derivatives market and has been generally encouraged by regulators. However, if the result of multilateral portfolio compression of Legacy Derivatives would cause the resulting trades to be subject to Margin Requirements, it would severely reduce the incentives of market participants to conduct multilateral portfolio compression;

iii. Wholesale novations completed for the sake of a group restructuring: wholesale novation in the case of a group restructuring should not be considered as 'new' trades; and

iv. Genuine amendments to Legacy Derivatives to include all benchmark reforms: ISDA has identified concerns around Legacy Derivatives being brought into scope of clearing and margining obligations as a critical issue on the path to ensuring successful transition away from interbank offered rates ("**IBORs**") and adoption of the contractual fallbacks for derivatives referencing benchmarks. These include fallbacks for not only interbank rates such as the IBORs, but also the generic fallbacks contained in the ISDA Benchmarks Supplement[30]. The ISDA Benchmarks Supplement was published in response to Article 28(2) of the EU Benchmarks Regulation ("**EU BMR**")[31] and covers interest rates, equity indices, commodity indices and FX rates. The wide-ranging scope of EU BMR means that many NCCD transactions between an Indonesian entity and an EU regulated entity could be subject to its requirements. Greater certainty would be provided if the OJK clarifies that amendments to Legacy Derivatives to (a) insert fallback provisions for all benchmarks, rather than being restricted to benchmarks for interest rates; or (b) voluntary transition[32] away from IBORs, in either case, would not

[29] Footnote 20 of the BCBS-IOSCO Framework provides that *"genuine amendments to existing derivatives contracts do not qualify as a new derivatives contract. Any amendment that is intended to extend an existing derivatives contract for the purpose of avoiding margin requirements will be considered a new derivatives contract."*

[30] https://www.isda.org/book/isda-benchmarks-supplement, ISDA, ISDA Benchmarks Supplement.

[31] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2016.171.01.0001.01.ENG&toc=OJ:L:2016:171:TOC, EU Parliament and the Council of the EU, Regulation (EU) 2016/1011 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds.

[32] As itemized in Annex 2 of the ARRC's letter to the US regulators, voluntary transition can take various forms including a portfolio compression. The ARRC's letter is available at:

constitute new contracts. This will remove any impediment market participants may otherwise perceive to ensuring that fallback provisions in their existing transactions (regardless of when these transactions were executed or the benchmarks they reference) are consistent with fallback provisions in their new transactions and as such, help to reduce basis risk across their portfolio of transactions to the fullest extent. Furthermore, such clarity would be helpful in facilitating efficient and cost-effective adoption of the IOSCO statement on the use of financial benchmarks as well as compliance with the EU BMR. Clarity on the treatment of voluntary transition away from IBORs in relation to OJK Margin Requirements would ensure an orderly market-wide transition consistent with public sector expectations to transition away from IBORs[33].

## 4. Conclusion

We would like to thank OJK again for this opportunity to respond to the Consultation and our related discussion at the Meeting. We hope that our comments in this submission will assist the OJK with its preparation of the new margin requirements for non-centrally cleared OTC derivatives in Indonesia.

However, we urge the OJK to address the concerns we have highlighted above and to work with BI and policy makers before implementing Margin Requirements and other G20 commitments, to ensure that concerns around the enforceability of close-out netting are addressed to ensure that there is no unintended consequence of market liquidity fragmentation, disincentivization of hedging activities, or negative impact on economic growth.

We welcome a continued dialogue with OJK on any of the points raised this response. Please do not hesitate to contact ISDA via Rahul Advani, Interim Head of Public Policy, Asia Pacific (radvani@isda.org or at +65 6653 4171), or Monica Chiu, Senior Counsel, Asia Pacific (mchiu@isda.org or at +852 2200 5908).

Yours sincerely,

For the International Swaps and Derivatives Association, Inc.

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https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2019/ARRC_Letter_CFTC_Regulatory_Derivatives_Treatment_05132019.pdf.

[33] The US Commodity Futures Trading Commission ("**CFTC**") issued several no-action letters providing relief to swap dealers and other market participants related to the industry-wide initiative to transition from swaps that reference the LIBOR and other interbank offered rates to swaps that reference alternative benchmarks: https://www.cftc.gov/PressRoom/PressReleases/8228-20

## ANNEX 1

### Illustrative example of collateralization on a net vs. gross basis

Bank XYZ has an MTM exposure of IDR 300,000 to PT ABC. PT ABC has an MTM exposure of IDR 500,000 to Bank XYZ. If netting is recognized (scenario 1), Bank XYZ has to post collateral of IDR 200,000 to PT ABC. If netting is not recognized and margin is on a gross basis (scenario 2), Bank XYZ will post collateral of IDR 500,000 to PT ABC, and PT ABC will post collateral of IDR 300,000 to XYZ Bank. In this case, if PT ABC were to go insolvent, Bank XYZ's exposure to it would be IDR 800,000 due to exchanging collateral without netting. Bank XYZ would have been better off without collateral (scenario 3), as its exposure to PT ABC would have been restricted to IDR 500,000.

**Scenario 1:**

Netting of exposures:

Bank XYZ $\xrightarrow{300,000}$ PT ABC (Exposure)

Bank XYZ $\xleftarrow{500,000}$ PT ABC (Exposure)

Netting of Exposure

Bank XYZ $\xrightarrow[200,000]{}$ PT ABC (Collateral Posted)

Insolvency of PT ABC:

Bank XYZ $\xrightarrow[\text{Net Exposure}]{0}$ PT ABC

**Scenario 2:**

Collateral on gross basis:

800

Bank XYZ $\xrightarrow{300,000}$ PT ABC (Exposure)

Bank XYZ $\xleftarrow{300,000}$ PT ABC (Collateral)

Bank XYZ $\xleftarrow{500,000}$ PT ABC (Exposure)

Bank XYZ $\xrightarrow[500,000]{}$ PT ABC (Collateral)

ABC Ltd.

800

Insolvency of PT ABC:

Bank XYZ $\xrightarrow[\text{Gross Exposure}]{800,000}$ PT ABC

**Scenario 3:**

No netting, no collateralisation:

$$\left.\begin{array}{l}\text{Bank XYZ} \xrightarrow{300{,}000} \text{PT ABC} \\ \text{Bank XYZ} \xleftarrow[500{,}000]{} \text{PT ABC}\end{array}\right\} \text{Exposure}$$

Insolvency of PT ABC:

$$\text{Bank XYZ} \xrightarrow[\text{Gross Exposure}]{500{,}000} \text{PT ABC}$$