Basel Committee
on Banking Supervision

Board of the
International Organization of
Securities Commissions

Consultative Document

Margin requirements for non-centrally-cleared derivatives

Issued for comment by 28 September 2012

July 2012

BANK FOR INTERNATIONAL SETTLEMENTS

OICU-IOSCO

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ISBN print: 92-9131-142-1
ISBN web: 92-9197-142-1

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Abbreviations

BCBS	Basel Committee on Banking Supervision
CCP	Central counterparty
CGFS	Committee on the Global Financial System
CPSS	Committee on Payment and Settlement Systems
FX	Foreign exchange
G20	The Group of Twenty
G-SIFI	Global systemically-important financial institution
IOSCO	International Organization of Securities Commissions
LCR	Liquidity coverage ratio
MTA	Minimum transfer amount
NSFR	Net stable funding ratio
OTC	Over-the-counter
QIS	Quantitative impact study
US SEC	United States Securities and Exchange Commission
WGMR	Working Group on Margining Requirements

Part A: Executive summary

This consultative document presents the initial policy proposals emerging from the Basel Committee on Banking Supervision (BCBS) and the International Organization of Securities Commissions (IOSCO) joint Working Group on Margining Requirements (WGMR). These proposals would establish minimum standards for margin requirements for non-centrally-cleared derivatives.[1] These proposals were developed in consultation with, and with the active participation of, the Committee on Payment and Settlement Systems (CPSS) and the Committee on the Global Financial System (CGFS).

Background

The economic and financial crisis that began in 2007 demonstrated significant weaknesses in the resiliency of banks and other market participants to financial and economic shocks. In the context of over-the-counter (OTC) derivatives in particular, the recent financial crisis demonstrated that further transparency and regulation of OTC derivatives and participants in the OTC derivatives markets was necessary to limit excessive and opaque risk-taking through OTC derivatives and to reduce the systemic risk posed by OTC derivatives transactions, markets, and practices.

In response, the Group of Twenty (G20) initiated a reform program in 2009 to reduce the systemic risk from OTC derivatives. As initially agreed-upon in 2009, the G20's reform program included four elements:

- All standardised OTC derivatives should be traded on exchanges or electronic platforms, where appropriate.
- All standardised OTC derivatives should be cleared through central counterparties (CCPs).
- OTC derivative contracts should be reported to trade repositories.
- Non-centrally-cleared derivative contracts should be subject to higher capital requirements.[2]

In 2011, the G20 agreed to add margin requirements on non-centrally-cleared derivatives to the reform program and called upon the BCBS and IOSCO to develop, for consultation, consistent global standards for these margin requirements.[3] Towards this end, the BCBS and IOSCO, in consultation with the CPSS and CGFS, formed the WGMR in October 2011 to develop a proposal on margin requirements for non-centrally-cleared derivatives for consultation by mid-2012.

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[1] Throughout this consultative paper, the term "non-centrally-cleared derivatives" is used as shorthand to refer to derivatives that are not cleared through a central counterparty.

[2] G20, *Pittsburgh summit declaration* (www.g20.org/images/stories/docs/eng/pittsburgh.pdf).

[3] G20, *Cannes summit final declaration* (www.g20.org/images/stories/docs/eng/cannes.pdf).

Objectives of margin requirements for non-centrally-cleared derivatives

Margin requirements for non-centrally-cleared derivatives have two main benefits:

Reduction of systemic risk. Only standardised derivatives are suitable for central clearing. A substantial fraction of derivatives are not standardised and will not be able to be cleared.[4] These non-centrally-cleared derivatives, which total hundreds of trillions of dollars of notional amounts,[5] will pose the same type of systemic contagion and spillover risks that materialised in the recent financial crisis. Margin requirements for non-centrally-cleared derivatives would be expected to reduce contagion and spillover effects by ensuring that collateral are available to offset losses caused by the default of a derivatives counterparty. Margin requirements can also have broader macroprudential benefits, by reducing the financial system's vulnerability to potentially de-stabilising procyclicality and limiting the build-up of uncollateralised exposures within the financial system.

Promotion of central clearing. In many jurisdictions central clearing will be mandatory for most standardised derivatives. But clearing imposes costs, in part because CCPs require margin to be posted. Margin requirements on non-centrally-cleared derivatives, by reflecting the generally higher risk associated with these derivatives, will promote central clearing, making the G20's original 2009 reform program more effective. This could, in turn, contribute to the reduction of systemic risk.

The effectiveness of margin requirements could be undermined if the requirements were not consistent internationally. Activity could move to locations with lower margin requirements, raising two concerns:

- The effectiveness of the margin requirements could be undermined (ie regulatory arbitrage).
- Financial institutions that operate in the low-margin locations could gain a competitive advantage (ie unlevel playing field).

Margin and capital

Both capital and margin perform important risk mitigation functions but are distinct in a number of ways. First, margin is "defaulter-pay". In the event of a counterparty default, margin protects the surviving party by absorbing losses using the collateral provided by the defaulting entity. In contrast, capital adds loss absorbency to the system, because it is "survivor-pay", using capital to meet such losses consumes the surviving entity's own financial resources. Second, margin is more "targeted" and dynamic, with each portfolio having its own designated margin for absorbing the potential losses in relation to that particular portfolio, and with such margin being adjusted over time to reflect changes in the

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[4] IMF (Chapter 3, April 2010 Global Financial Stability Report) assumes that one-quarter of interest rate swaps, one-third of credit default swaps, and two-thirds of other OTC derivatives will not be standardised and liquid enough to be cleared.

[5] A recent BIS survey (Semiannual OTC derivatives statistics at end-December 2011) shows that notional amount outstanding for OTC derivatives totalled USD648 trillion in December 2011.

risk of that portfolio. In contrast, capital is shared collectively by all the entity's activities and may thus be more easily depleted at a time of stress, and is difficult to rapidly adjust to reflect changing risk exposures. Capital requirements against each exposure are not designed to be sufficient to cover the loss on the default of the counterparty but rather the probability weighted loss given such default. **For these reasons, margin can be seen as offering enhanced protection against counterparty credit risk where it is effectively implemented**. In order for margin to act as an effective risk mitigant, that margin must be (i) accessible at the time of need and (ii) in a form that can be liquidated rapidly in a period of financial stress at a predictable price.

The interaction between capital and margin, however, is complex and is an area in which the full range of interactions needs further careful consideration. When calibrating the application of capital and margin, consideration must be given to factors such as: (i) differences in capital requirements across different types of entities; (ii) the effect certain margin requirements may have on the capital calculations of different types of regulated entities subject to differing capital requirements; and (iii) the current asymmetrical treatment of collateral in many regulatory capital frameworks where benefit is given for collateral received, but no cost is incurred for the (encumbrance) risks of collateral posted.

Impact of margin requirements on liquidity

The potential benefits of margin requirements must be weighed against the liquidity impact that would result from derivative counterparties' need to provide liquid, high-quality collateral to meet those requirements, including potential changes to market functioning as result of an increasing demand for such collateral in the aggregate. Financial institutions may need to obtain and deploy additional liquidity resources to meet margin requirements that exceed current practices. Moreover, the liquidity impact of margin requirements cannot be considered in isolation. Rather, it is important to recognise ongoing and parallel regulatory initiatives that will also have significant liquidity impacts; examples of such initiatives include the BCBS's Liquidity Coverage Ratio (LCR), Net Stable Funding Ratio (NSFR) and global mandates for central clearing of standardised derivatives.

The US SEC has pointed out that the proposed margin requirements could have a much greater impact on securities firms regulated under net capital rules. Under such rules, securities firms are required to maintain at all times a minimum level of 'net capital" (meaning highly liquid capital) in excess of all subordinated liabilities. When calculating the "net capital", the firm must deduct all assets that cannot be readily convertible into cash, and adjust the value of liquid assets by appropriate haircuts. As such, in computing "net capital", assets that are delivered by the firm to another party as margin collateral are treated as unsecured receivables from the party holding the collateral and are thus deducted in full when calculating net capital.

As discussed in Part C of this consultative paper, the BCBS and IOSCO plan to conduct a quantitative impact study (QIS) in order to gauge the impact of the margin proposals. In particular, the QIS will assess the amount of margin required on non-centrally-cleared derivatives as well as the amount of available collateral that could be used to satisfy these requirements. The QIS will be conducted during the consultation period, and its results will inform the BCBS's and IOSCO's joint final proposal.

Macroprudential considerations

The BCBS and IOSCO also note that national supervisors may wish to establish margin requirements for non-centrally-cleared derivatives that, in addition to achieving the two principal benefits noted above, also create other desirable macroprudential outcomes. Further work by the relevant authorities is likely required to consider the details of how such outcomes might be identified and operationalised. The BCBS and IOSCO encourage further consideration of other potential macroprudential benefits of margin requirements for non-centrally-cleared derivatives and of the need for international coordination that may arise in this respect.

Key principles and proposed requirements

As described in more detail in Part B, this consultative paper presents the BCBS's and IOSCO's initial policy proposals for margin requirements for non-centrally-cleared derivatives, as articulated through key principles addressing seven (7) main elements:

1. Appropriate margining practices should be in place with respect to all derivative transactions that are not cleared by CCPs.
2. All financial firms and systemically-important non-financial entities ("covered entities") that engage in non-centrally-cleared derivatives must exchange initial and variation margin as appropriate to the risks posed by such transactions.
3. The methodologies for calculating initial and variation margin that must serve as the baseline for margin that is collected from a counterparty should (i) be consistent across entities covered by the proposed requirements and reflect the potential future exposure (initial margin) and current exposure (variation margin) associated with the portfolio of non-centrally-cleared derivatives at issue and (ii) ensure that all exposures are covered fully with a high degree of confidence.
4. To ensure that assets collected as collateral for initial and variation margin purposes can be liquidated in a reasonable amount of time to generate proceeds that could sufficiently protect collecting entities covered by the proposed requirements from losses on non-centrally-cleared derivatives in the event of a counterparty default, these assets should be highly liquid and should, after accounting for an appropriate haircut, be able to hold their value in a time of financial stress.
5. Initial margin should be exchanged by both parties, without netting of amounts collected by each party (ie on a gross basis), and held in such a way as to ensure that (i) the margin collected is immediately available to the collecting party in the event of the counterparty's default; and (ii) the collected margin must be subject to arrangements that fully protect the posting party in the event that the collecting party enters bankruptcy to the extent possible under applicable law.
6. Transactions between a firm and its affiliates should be subject to appropriate variation margin arrangements to prevent the accumulation of significant current exposure to any affiliated entity arising out of non-centrally-cleared derivatives.
7. Regulatory regimes should interact so as to result in sufficiently consistent and non-duplicative regulatory margin requirements for non-centrally-cleared derivatives across jurisdictions.

Implementation and timing of margin requirements

This consultative paper lays out a framework for margin requirements on non-centrally-cleared derivatives. This paper does not propose a specific process for implementing these requirements. Importantly, the framework discussed in this paper does not represent a final proposal. Rather, the BCBS and IOSCO fully expect to benefit from information that is received as part of the comment process and the QIS process. A final proposal will be informed by the responses to the consultation and the QIS results; and the mechanics of implementation and timing of the requirements will likely depend on the specifics of the final proposed margining framework. The BCBS and IOSCO, however, are aware of the importance of the sequencing, timing and implementation of margining requirements. Accordingly, the BCBS and IOSCO seek comments on the following issues related to the timing and implementation of margining requirements.

Q1.	What is an appropriate phase-in period for the implementation of margining requirements on non-centrally-cleared derivatives? Can the implementation timeline be set independently from other related regulatory initiatives (eg central clearing mandates) or should they be coordinated? If coordination is desirable, how should this be achieved?

Organisation of the consultative paper

Part B of this consultative paper presents the BCBS's and IOSCO's joint policy proposals for margin requirements for non-centrally-cleared derivatives. These policy proposals take the form of (i) a *key principle* that would guide a specific element of the requirements and (ii) an accompanying *proposed requirement* that describes how that key principle would be operationalised in practice. In addition, for each specific element of the policy proposals, the consultation paper also provides a background discussion that describes key considerations and the potential approaches that could be adopted and provides additional commentary as necessary to provide further context to what is proposed. The discussion of each specific element of the policy proposals also poses a number of specific questions for public comment.

Part C of this consultative paper discusses the potential impact of margin requirements of non-centrally-cleared derivatives on the liquidity resources of market participants and the liquidity of the market more generally.

Next steps

The BCBS and IOSCO welcome comments from the public on all aspects of this consultative document and in particular on the questions in the text by **28 September 2012**. Comments may be provided as follows:

To the BCBS:

- By e-mail to baselcommittee@bis.org; or
- By post to:

Basel Committee on Banking Supervision
Bank for International Settlements
Centralbahnplatz 2
CH-4002 Basel
Switzerland.

To IOSCO:

- By e-mail to wgmr@iosco.org; or
- By post to:

  International Organization of Securities Commissions
  C/ Oquendo 12
  28006 Madrid
  Spain

All comments will be published on the Bank for International Settlements' and International Organization of Securities Commissions' websites unless a commenter specifically requests confidential treatment.

As described in Part C below, the BCBS and IOSCO will also subject the proposals described in this consultative paper to a thorough quantitative impact study.

Part B: Key principles and proposed requirements

Element 1: Scope of coverage – instruments subject to the requirements

Background discussion

A primary threshold question that must be addressed in the design of margin requirements for non-centrally-cleared derivatives is the scope of derivative instruments to which the requirements will apply. Consistent with the G20 mandate, the BCBS and IOSCO have focused their attention on all derivatives that are not cleared by a CCP, regardless of type. At the same time, some consideration has been given to whether certain types of transactions may, because of their unique characteristics or particular market practices, merit exclusion from the scope of the margin requirements.

Key principle

Appropriate margining practices should be in place with respect to all derivative transactions that are not cleared by CCPs.

Proposed requirement

The margin requirements apply to all non-centrally-cleared derivatives.

Commentary

As a general matter, all derivatives that are not centrally-cleared by a CCP should be subject to margining requirements. In principle, this covers all five major asset classes of derivatives (interest rate, credit, equity, foreign exchange and commodity) and all derivative products (both standardised and bespoke) that are not centrally cleared by a central counterparty for any reason.

The BCBS and IOSCO have considered the US proposal to exempt foreign exchange swaps and forwards from the US mandatory central clearing regime because of the particular market and structural features of those instruments.[6] Some have suggested that short-dated foreign exchange swaps and forwards such as those with a maturity less than one year do not generally present significant counterparty risks to market participants and are not likely to be a source of systemic risk. Moreover, it was also suggested that the market infrastructure that supports the settlement of these instruments mitigates much of the settlement risk associated with these instruments. At the same time, however, it is unclear whether these characteristics fully offset the need for margin requirements. Accordingly, the BCBS and IOSCO seek comment on whether or not foreign exchange swaps and forwards with a maturity of less than a specific tenor such as one month or one year should be exempted from the global margining requirements.

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[6] On April 29, 2011, the United States Department of the Treasury issued a proposed determination that would exempt foreign exchange swaps and forwards from the definition of “swap” for most Dodd-Frank purposes and hence exempt them from central clearing requirements. The proposed determination can be found at: www.gpo.gov/fdsys/pkg/FR-2011-05-05/html/2011-10927.htm

Q2. Should foreign exchange swaps and forwards with a maturity of less than a specified tenor such as one month or one year be exempted from margining requirements due to their risk profile, market infrastructure, or other factors? Are there any other arguments to support an exemption for foreign exchange swaps and forwards?

The BCBS and IOSCO have also considered criteria that could be employed to assess whether additional products may merit exemptions from margining requirements, but have not settled on any particular criteria for product exemptions at this time. Accordingly, the BCBS and IOSCO seek comment on whether additional specific exemptions, or criteria for determining such exemptions, should be considered.

Q3. Are there additional specific product exemptions, or criteria for determining such exemptions, that should be considered? How would such exemptions or criteria be consistent with the overall goal of limiting systemic risk and not providing incentives for regulatory arbitrage?

Element 2: Scope of coverage – scope of applicability

Background discussion

Another important element of the proposed margin requirements is their general scope of applicability – that is, to which firms do the requirements apply, and what the requirements compel those firms to do. In particular, the scope of the margin requirements' applicability has an important effect on each of the following:

- The extent to which the requirements reduce systemic risk – here the BCBS and IOSCO have considered the extent to which potential approaches would capture all or substantially all systemic risk arising out of the non-centrally-cleared derivatives, the risk of which is generally concentrated among the activities of the largest key market participants transacting in a significant amount of non-centrally-cleared derivatives (eg through dealing or other activities), subject to certain exceptions in specific asset classes, such as commodities;
- The extent to which the requirements promote central clearing – here the BCBS and IOSCO have considered the extent to which potential approaches would parallel the central clearing mandate, which generally applies to all financial institutions and those non-financial institutions that pose significant systemic risk; and
- The liquidity impact of the requirements – here the BCBS and IOSCO have considered the fact that increased scope of applicability would entail a correspondingly greater liquidity impact.

In evaluating this fundamental element of the margin requirements and its implications with respect to systemic risk reduction, incentives relative to central clearing, and impact on liquidity, the BCBS and IOSCO have focused on two principal questions:

- Whether the margin requirements should apply to all parties to non-centrally-cleared derivatives, only to financial firms, or only to key market participants; and

- Whether the margin requirements should require a bilateral exchange of margin between all entities covered by the proposed requirements, or only the unilateral collection of margin by certain types of firms (eg key market participants).

There was broad consensus within the BCBS and IOSCO that the margin requirements need not apply to non-centrally-cleared derivatives to which non-financial entities that are not systemically-important are a party, given that (i) such transactions are viewed as posing little or no systemic risk and (ii) such transactions are exempt from central clearing mandates under most national regimes. Similarly, the BCBS and IOSCO broadly supported not applying the margin requirements in a way that would require sovereigns or central banks to either collect or post margin. Both of these views are reflected by the effective exclusion of such transactions from the scope of margin requirements proposed in this consultative paper.

With respect to other non-centrally-cleared derivatives, a majority of the BCBS and IOSCO members supported margin requirements that, in principle, would involve the mandatory exchange of both initial and variation margins among parties to non-centrally-cleared derivatives ("universal two-way margin").

The BCBS and IOSCO have considered a variety of options for implementing universal two-way margin. One option would be to require the exchange of the full amount of initial and variation margins, and with the same requirements applied to all types of derivative market participants. This approach would promote consistency with central clearing mandates and would also promote collateralisation of all exposures arising among parties to non-centrally-cleared derivatives.[7] The BCBS and IOSCO also recognise, however, that this approach would incur the most substantial liquidity costs. Varying the requirements across different types of derivative market participants may be justified under certain circumstances or for certain types of market participants to the extent that this does not undermine the benefits of margin requirements. For example, there may be a case for more stringent requirements for entities whose collapse may cause widespread disruption to the financial system, but the rules may be less stringent if an entity also enjoys some other effective protection against a counterparty's default.

In light of the above, the BCBS and IOSCO have considered some other options for implementing universal two-way margin within the proposed margin standards that might include certain features designed to mitigate the related costs associated with the full bilateral exchange of margin while, at the same time, protecting the financial system from an excessive amount of systemic risk from non-centrally-cleared derivatives. In this respect, the BCBS and IOSCO have focused solely on features associated with the collection of initial

[7] The central clearing mandate generally applies to all financial entities and systemically important non-financial entities. Ensuring consistency between entities that are subject to the central clearing obligation for standardised derivatives and those entities that are subject to margin requirements for non-centrally-cleared derivatives is desirable because any inconsistency may create various market distortions (eg by creating preferred counterparties) and could permit regulatory arbitrage. It should be noted, however, that a direct comparison of bilateral margining to margining under central clearing and CCP practices has important limitations that must be taken into account when evaluating the potential effect of incentives for central clearing. Importantly, central clearing provides the advantage of multilateral netting which is not present in the bilateral context of non-centrally-cleared derivatives. Multilateral netting allows CCP members to offset or "net down" their exposure across multiple CCP members, while netting across multiple counterparties is not permitted in the bilateral context. Accordingly, while applying a CCP's margin requirement to one side of a single non-centrally-cleared transaction would produce an identical margin requirement to that required by the CCP, applying the CCP's margin requirement to a large portfolio of non-centrally-cleared derivatives transactions across multiple counterparties would be expected to produce a higher margin requirement than would be required by a CCP because trades executed through a CCP would benefit from multilateral netting while the bilateral trades would not.

margin, as the exchange of variation margin represents a net transfer between derivative counterparties, the net liquidity impact associated with its exchange is not likely to be material in the ordinary course of business.

One potential tool that has received broad support and that could be used to manage the liquidity impact associated with margin requirements is to provide for an initial margin threshold ("threshold") that would specify an amount under which a firm would have the **option** of not collecting initial margin. In cases where the initial margin requirement for the portfolio exceeded the threshold, the firm would be obligated to collect initial margin from its counterparty in an amount that is **at least** as large as the difference between the initial margin requirement and the threshold. For example, if the threshold amount were 10 and the initial margin requirement for a particular non-centrally-cleared derivative was 15, then a firm would be obligated to collect at least 5 from its counterparty in initial margin (15-10=5), or more if it so chose pursuant to its risk management guidelines and principles. Such an approach, if applied in a manner consistent with sound risk management practices, could help ameliorate the costs associated with the universal two-way margin regime, but could also be less consistent with central clearing mandates than other potential implementation approaches.

In terms of how the threshold approach should be operationalised, the threshold would apply to the aggregate initial margin otherwise required for an entire portfolio of non-centrally-cleared derivatives entered into by a firm with a counterparty, and not on a trade-by-trade basis. The size of the threshold amount could vary from a level of zero, in which case the firm would be required to collect the full amount of initial margin from its counterparty, to a significantly larger amount that could result in no minimum required amount of initial margin actually having to be collected with respect to some non-centrally-cleared derivative portfolios.

In addition, it may be desirable to apply different threshold amounts to different types of derivative market participants. The threshold that a firm is allowed to apply to its derivative counterparty may depend upon characteristics of both the firm and its counterparty. In particular, some derivative market participants may be better equipped to manage the risks of non-centrally-cleared derivatives and/or to absorb the losses associated with any realised counterparty defaults. For example, firms that are prudentially regulated and are subject to minimum regulatory capital requirements or direct supervision may fall into this category of derivative market participants. As they are subject to specific capital requirements, the amount below the threshold which is not subject to initial margin would be subject to adequate capital requirements. Conversely, limiting or restricting the use of thresholds by entities which are not prudentially regulated may be desirable in limiting the risks associated with uncollateralised derivative exposures within the financial system. In addition, some derivative market participants may pose substantially more systemic risk to the financial system through their non-centrally-cleared derivative activities than others. Accordingly, greater collateralisation of derivative exposures involving these entities may be more important than for other entities that pose substantially less systemic risk to the financial system. For example, large, internationally active derivative market participants that intermediate a significant portion of such derivatives and are important to the overall stability of the market may pose more systemic risk to the system in the event of significant number of counterparty defaults (eg as a result of a period of financial stress) and have market-wide consequences. Limiting or restricting the use of thresholds by or with respect to such entities may also be desirable in managing the systemic risks associated with uncollateralised derivative exposures in the financial system.

The preceding discussion of thresholds and their application has been general and encompasses a number of different conceptual options for implementing a universal two-way margin framework, which reflects the range of views among the BCBS and IOSCO members

regarding the best way of balancing reductions in systemic risk with the costs of margin requirements. Below, four specific examples of potential margin frameworks are discussed to provide concrete context to the preceding discussion and better facilitate public comment. **The examples are intended to clarify the general concepts that have been discussed above. Similarly, the categorisation of the parties to non-centrally-cleared derivatives into key market participants, prudentially-regulated entities and other institutions is for illustration purposes only, and each of these terms is intentionally left undefined. The examples should not be viewed as representing distinct and mutually exclusive options that are being considered for implementation.** The BCBS and IOSCO expect to use the information that is received during the comment period and as part of the quantitative impact assessment to further refine their view on this aspect of the margin framework.

Example 1: Full, two-way margining with zero thresholds

In this example, all parties to non-centrally-cleared derivatives would exchange the full amount of required initial and variation margin. For example, if two parties (A and B) have executed a portfolio of non-centrally-cleared derivatives and the initial margin requirement of both A and B is 20 each, given that the threshold is zero, both A and B would be required to collect 20 of initial margin from each other. Both A and B would be required to exchange the full amount of variation margin.

Illustration of initial margin exchanged by each counterparty under Example 1

		Initial Margin Collected By	
		A	**B**
Initial Margin Posted From	**A**	N/A	20
	B	20	N/A

Example 2: Two-way margining with a single threshold

In this example, all parties to non-centrally-cleared derivatives would be allowed to apply to their counterparty an initial margin threshold. For example, if the initial margin threshold was 10, two parties (A and B) have executed a portfolio of non-centrally-cleared derivatives, and the initial margin requirement of both A and B is 20 each, then A would be required to collect **at least** 10 (20-10=10) in initial margin from B and B would be required to collect **at least** 10 in initial margin from A. Both A and B could collect more than 10 if it was consistent with their risk management principles and practices. Both A and B would be required to exchange the full amount of variation margin.

Illustration of initial margin exchanged by each counterparty under Example 2

		Initial Margin Collected By	
		A	**B**

Initial Margin Posted From	**A**	N/A	10
	B	10	N/A

Example 3: Two-way margining with a higher threshold for prudentially regulated entities when they enter into non-centrally-cleared derivative with another prudentially regulated entity

In this example, all parties to non-centrally-cleared derivatives would be allowed to apply to their counterparty an initial margin threshold, as articulated in Example 2. However, in cases where both parties to a non-centrally-cleared derivative are prudentially-regulated entities, then a higher threshold would apply because counterparty credit risk would be covered by adequate capital requirements under the threshold.

For instance, assume that the threshold for non-centrally-cleared derivatives is 10, except where both parties to a non-centrally-cleared derivative are prudentially-regulated entities, in which case the threshold would be 15. Now consider a case in which there are four parties, A, B, C and D. A and B are non-prudentially-regulated entities, whereas C and D are prudentially regulated. Assume that for each of the non-centrally-cleared derivatives below, the initial margin requirement for each party is 20.

If A and B enter into a non-centrally-cleared derivative with each other, then both parties would be required to collect **at least** 10 (20-10=10) in initial margin from its counterparty. This is the same as under Example 2. Both A and B would be required to exchange the full amount of variation margin.

If C and D enter into a non-centrally-cleared derivative with each other, since both of them are prudentially-regulated entities and the threshold for such derivatives is 15, both parties would be required to collect **at least** 5 (20-15=5) in initial margin from its counterparty. Both C and D would be required to exchange the full amount of variation margin.

If A or B enters into a non-centrally-cleared derivative with C or D, since one of the parties to the derivative is not a prudentially-regulated entity, then both parties would be required to collect **at least** 10 (20-10=10) in initial margin from its counterparty. All parties would be required to exchange the full amount of variation margin.

Illustration of initial margin exchanged by each counterparty under Example 3

		Initial Margin Collected By			
		A	**B**	**C**	**D**
Initial Margin Posted From	**A**	N/A	10	10	10
	B	10	N/A	10	10
	C	10	10	N/A	5
	D	10	10	5	N/A

Example 4: Two-way margining with three thresholds

In this example, as in Example 2 and 3, all parties to non-centrally-cleared derivatives would be allowed to apply to their counterparty an initial margin threshold.

As in Example 3, A and B are assumed to be non-prudentially-regulated entities, and C and D prudentially-regulated entities. For this Example 4, two key market participants, E and F, will be added.

As in Example 3, assume that (i) the threshold for non-centrally-cleared derivatives is 10; and (ii) where both parties to a non-centrally-cleared derivative are prudentially-regulated entities, the threshold would be 15. For the purposes of this example, a new assumption (iii) is added, that where both parties to a non-centrally-cleared derivative are key market participants, then regardless of whether they are prudentially-regulated, a lower threshold of 5 would apply because these entities would pose greater systemic risk. Assume that for each of the non-centrally-cleared derivatives below, the initial margin requirement for each party is 20.

If E and F enter into a non-centrally-cleared derivative with each other, then under assumption (iii) above, both parties would be required to collect **at least** 15 (20-5=15) in initial margin from its counterparty. Both E and F would be required to exchange the full amount of variation margin.

If E or F enters into a non-centrally-cleared derivative with A or B, since one of the parties to the derivative is not a key market participant, then under assumption (i) above, both parties would be required to collect **at least** 10 (20-10=10) in initial margin from its counterparty. All parties would be required to exchange the full amount of variation margin.

If E or F enters into a non-centrally-cleared derivative with C or D, since one of the parties (ie C or D) to the derivative is not a key market participant, the threshold of 5 under assumption does not apply. By the same token, since one of the parties (ie E or F) to the derivative is not a prudentially-regulated entity, the threshold of 15 does not apply either. By elimination, the threshold of 10 would apply. Both parties would be required to collect **at least** 10 (20-10=10) in initial margin from their counterparty. All parties would be required to exchange the full amount of variation margin.

Illustration of initial margin exchanged by each counterparty under Example 4

		Initial Margin Collected By					
		A	**B**	**C**	**D**	**E**	**F**
Initial Margin Posted By	**A**	N/A	10	10	10	10	10
	B	10	N/A	10	10	10	10
	C	10	10	N/A	5	10	10
	D	10	10	5	N/A	10	10
	E	10	10	10	10	N/A	15
	F	10	10	10	10	15	N/A

As the above examples make clear, the evaluation of the merit and utility of thresholds, their precise specification, and the triggers that could be used to vary such thresholds across

derivative market participants represents an important technical challenge. Accordingly, to evaluate their potential use in the implementation of universal, two-way margin, the BCBS and IOSCO seek comment on a number of specific questions in what follows, and will also include their potential use in the QIS exercise described in Part C to inform any specific parameterisation.

Finally, it is important to note that, although the discussion above provides for a range of potential margin frameworks, BCBS and IOSCO are committed to establishing a single, unified framework that will provide a global standard for margining non-centrally-cleared derivatives. Both the information received from the comment process as well as from the QIS will be used to formulate a final proposal on the establishment of a single, uniform framework for margin requirements on non-centrally-cleared derivatives.

Key principle

All covered entities (ie financial firms and systemically-important non-financial entities) that engage in non-centrally-cleared derivatives must exchange initial and variation margin as appropriate to the risks posed by such transactions.[8]

Proposed requirement

All covered entities that engage in non-centrally-cleared derivatives must exchange, on a bilateral basis, initial and variation margin in mandatory minimum amounts.[9]

Commentary

There was broad consensus within the BCBS and IOSCO that all covered entities engaging in non-centrally-cleared derivatives must exchange initial and variation margin. The BCBS and IOSCO also recognise that this approach would incur the most substantial liquidity costs, and that the use of thresholds could potentially balance the policy goals of reducing systemic risk and promoting central clearing with mitigating the costs associated with the bilateral exchange of margin. There is, however, no unanimous view as to how the thresholds should be designed and calibrated to achieve an optimal compromise. A range of issues has been identified for implementing universal two-way margin and thresholds, as set out below, on which the BCBS and IOSCO seek comment and which will be included in the QIS exercise described in Part C.

Q4.	Is the proposed key principle and proposed requirement for scope of applicability appropriate? Does it appropriately balance the policy goals of reducing systemic risk, promoting central clearing, and limiting liquidity impact? Are there any specific adjustments that would more appropriately balance these goals? Does the proposal

[8] The BCBS and IOSCO note that slightly different treatment is contemplated with respect to transactions between affiliated entities, as described under *Element 6* below.

[9] Some members are concerned about financial institutions providing credit to their counterparties for the sole purpose of funding initial margin requirements. Such provided credit could undermine the effectiveness of the margin requirements as interconnectedness between financial institutions would remain unchanged despite the initial margin requirements.

pose or exacerbate systemic risks? Are there any logistical or operational considerations that would make the proposal problematic or unworkable?

Q5. Are initial margin thresholds an appropriate tool for managing the liquidity impact of the proposed requirements? What level of initial margin threshold(s) would be effective in managing liquidity costs while, at the same time, not resulting in an unacceptable level of systemic risk or inconsistency with central clearing mandates? Is the use of thresholds inconsistent with the underlying goals of the margin requirements? Would the use of thresholds result in a significant amount of regulatory arbitrage or avoidance? If so, are there steps that can be taken to prevent or limit this possibility?

Q6. Is it appropriate for initial margin thresholds to differ across entities that are subject to the requirements? If so, what specific triggers would be used to determine if a smaller or zero threshold should apply to certain parties to a non-centrally-cleared derivative? Would the use of thresholds result in an unlevel playing field among market participants? Should the systemic risk posed by an entity be considered a primary factor? What other factors should also be considered? Can an entity's systemic risk level be meaningfully measured in a transparent fashion? Can systemic risk be measured or proxied by an entity's status in certain regulatory schemes, eg G-SIFIs, or by the level of an entity's non-centrally-cleared derivatives activities? Could data on an entity's derivative activities (eg notional amounts outstanding) be used to effectively determine an entity's systemic risk level?

Q7. Is it appropriate to limit the use of initial margin thresholds to entities that are prudentially regulated, ie those that are subject to specific regulatory capital requirements and direct supervision? Are there other entities that should be considered together with prudentially-regulated entities? If so, what are they and on what basis should they be considered together with prudentially-regulated entities?

Q8. How should thresholds be evaluated and specified? Should thresholds be evaluated relative to the initial margin requirement of an approved internal or third party model or should they be evaluated with respect to simpler and more transparent measures, such as the proposed standardised initial margin amounts?[10] Are there other methods for evaluating thresholds that should be considered? If so what are they and how would they work in practice?

Q9. What are the potential practical effects of requiring universal two-way margin on the capital and liquidity position, or the financial health generally, of market participants, such as key market participants, prudentially-regulated entities and non-prudentially regulated entities? How would universal two-way margining alter current market practices and conventions with respect to collateralising credit exposures arising from OTC derivatives? Are there practical or operational issues with respect to universal two-way margining?

Q10. What are the potential practical effects of requiring regulated entities (such as securities firms or banks) to post initial margin to unregulated counterparties in a non-centrally-cleared derivative transaction? Does this specific requirement reduce, create, or exacerbate systemic risks? Are there any logistical or operational considerations that would make the proposal problematic or unworkable?

Q11. Are the proposed exemptions from the margin requirements for non-financial entities

[10] Further description of the methodologies for calculating initial and variation margin is included under Element 3 below.

that are not systemically important, sovereigns, and/or central banks appropriate?

Q12. Are there any specific exemptions that would not compromise the goal of reducing systemic risk and promoting central clearing that should be considered? If so, what would be the specific exemptions and why should they be considered?

Element 3: Baseline minimum amounts and methodologies for initial and variation margin

Background discussion

A third key element of the margin requirements is the minimum, baseline amount of initial and variation margin that would be required to be collected for a non-centrally-cleared derivative and the methodologies by which that baseline amount would be calculated. The BCBS and IOSCO have evaluated the calculation of these baseline margin amounts by reference to the two underlying benefits of the margin requirements described in Part A – systemic risk reduction and promotion of central clearing. From the perspective of systemic risk reduction, the BCBS and IOSCO have considered the extent to which baseline margin amounts would be sufficient to offset any loss caused by the default of a counterparty with a high degree of confidence; this line of analysis involves calibrating baseline margin amounts relative to the current and potential exposure posed by particular derivative transactions. From the perspective of promoting central clearing, the BCBS and IOSCO are considering the costs associated with complying with the baseline margin requirements; this line of analysis involves calibrating baseline margin amounts relative to the costs of executing the same or similar transactions on a centrally-cleared basis. This consultation paper proposes a general framework for calculating baseline variation and initial margin that is intended to realise both benefits of margin requirements.

In terms of distinguishing baseline requirements for initial margin and variation margin, the BCBS and IOSCO have taken into account the differing form and purpose of each type of margin and their typical use in market practice.

Variation margin protects the transacting parties from the current exposure that has already arisen to one of the parties from changes in the mark-to-market value of the contract after the transaction has been executed. The amount of variation margin reflects the size of this current exposure. It depends on the mark-to-market value of the derivative at any point in time, and therefore can change over time.

Initial margin protects the transacting parties from the potential future exposure that could arise from future changes in the mark-to-market value of the contract during the time it takes to close out the position in the event that one or more counterparties default. The amount of initial margin reflects the size of the potential future exposure. It depends on a variety of factors, including how often the contract is re-valued, the volatility of the underlying instrument, and the expected duration of the contract close-out period, and can change over time, particularly where it is calculated on a portfolio basis and transactions are added to or removed from the portfolio on a continuous basis.

Key principle

The methodologies for calculating initial and variation margin that must serve as the baseline for margin that is collected from a counterparty should (i) be consistent across entities covered by the proposed requirements and reflect the potential future exposure (initial

margin) and current exposure (variation margin) associated with the particular portfolio of non-centrally-cleared derivatives at issue and (ii) ensure that all exposures are covered fully with a high degree of confidence.

Proposed requirement – initial margin

For purposes of informing the initial margin baseline, the potential future exposure of a non-centrally-cleared derivative should reflect an extreme but plausible estimate of an increase in the value of the instrument that is consistent with a one-tailed 99 percent confidence interval over a 10-day horizon,[11] based on historical data that incorporates a period of significant financial stress.[12]It is important that the initial margin amount be calibrated to a period of financial stress to ensure that sufficient margin will be available when it is most needed and to limit the extent to which margin can be procyclical. The required amount of initial margin may be calculated by reference to either (i) a quantitative portfolio margin model or (ii) a standardised margin schedule.

Non-centrally-cleared derivatives will often be exposed to a number of complex and interrelated risks. Internal or third-party quantitative models that assess these risks in a granular form can be useful for ensuring that the relevant initial margin amounts are calculated in an appropriately risk-sensitive manner. Moreover, current practice among a number of large and active CCPs is to use internal quantitative models when determining initial margin amounts.

Notwithstanding the utility of quantitative models, the use of such models is predicated on a satisfaction of several prerequisite conditions. First, any quantitative model that is used for initial margin purposes must be approved by the relevant supervisory authority. Models that have not been granted explicit approval must not be used for initial margin purposes. Models may either be internally developed or may be provided by third party vendors but in all such cases these models must be approved by the appropriate supervisory authority. Moreover, in the event that a third party-provided model is used for initial margin purposes, the model must be approved for use within each jurisdiction and by each institution seeking to use the model. There will be no presumption that approval by one supervisor in the case of one or more institutions will imply approval for a wider set of jurisdictions and/or institutions. Second, quantitative initial margin models must be subject to an internal governance process that continuously assesses the value of the model's risk assessments, tests the model's assessments against realised data and experience, and validates the applicability of the model to the derivatives for which it is being used. The process must take into account the complexity of the products covered (eg barrier options and other more complex structures). Similarly, an unregulated counterparty that wishes to use a quantitative model for initial margin purposes may use an approved initial margin model. These additional requirements are intended to ensure that the use of models does not lead to a lowering of margin standards. The use of models is also not intended to lower margin standards that may already exist in the context of some non-centrally-cleared derivatives. Rather, the use of models is intended to produce appropriately risk-sensitive assessments of potential future exposure so as to promote robust margin requirements.

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[11] The 10-day requirement should apply in the case that variation margin is exchanged daily. If variation margin is exchanged at less than a daily frequency then the minimum horizon should be set equal to 10 days plus the number of days in between variation margin exchanges.

[12] Because of the discrete subset of transactions covered by the margin requirements, these assumptions differ somewhat from the assumptions used to calculate potential future exposure under the Basel regulatory capital framework for OTC derivatives.

Quantitative initial margin models may account for risk on a portfolio basis. More specifically, the initial margin model may consider all of the derivatives that are approved for model use that are subject to a single, legally enforceable netting agreement. Derivatives between counterparties that are not subject to the same, legally enforceable netting agreement must not be considered in the same initial margin model calculation. Derivative portfolios often are exposed to a number of offsetting risks that can and should be reliably quantified for the purposes of calculating initial margin requirements. At the same time, a distinction must be made between offsetting risks that can be reliably quantified and those that are more difficult to quantify. In particular, inter-relationships between derivatives in distinct asset classes, such as equities and commodities, are difficult to model and validate. Moreover, these sorts of relationships are prone to instability and may be more likely to break down in a period of financial stress. Accordingly, initial margin models may account for diversification, hedging and risk offsets **within** well-defined asset classes such as currency/rates, equity, credit and commodities, but not **across** such asset classes. However, any such incorporation of diversification, hedging and risk offsets with an initial margin model will require approval by the relevant supervisory authority. Initial margin calculations for derivatives in distinct asset classes must be performed without regard to derivatives in other asset classes. As a specific example, for a derivative portfolio consisting of a single credit derivative and a single commodity derivative, an initial margin calculation that uses an internal model would proceed by first calculating the initial margin requirement on the credit derivative and then calculating the initial margin requirement on the commodity derivative. The total initial margin requirement for the portfolio would be the sum of the two individual initial margin amounts.

While quantitative, portfolio-based initial margin models are useful and desirable if monitored and governed appropriately, there are some instances in which a simpler and less risk-sensitive approach to initial margin calculations may be warranted. In particular, smaller market participants may not wish to undertake or may be unable to undertake the time and expense of developing and maintaining a quantitative model. In addition, some market participants may value simplicity and transparency in initial margin calculations, without resort to a complex quantitative model. Further, a conservative alternative for calculating initial margin is needed in the event that no approved initial margin model exists to cover a specific transaction. Accordingly, the BCBS and IOSCO have provided a proposed initial margin schedule, included as Appendix A, which may be used to compute the amount of initial margin required on a set of derivative transactions. The schedule contemplates initial margin that varies according to asset class and tenor, but does not contemplate any additional variables in calculating initial margin. The required initial margin amount would be calculated by multiplying the margin rate in the provided schedule by the gross notional size of the derivative contract, and then repeating this calculation for each derivative contract.[13] The total amount of margin required on a portfolio would then be computed as the sum of the initial margin requirements on each derivative. Accordingly, the table does not account for hedging, diversification, or netting benefits. However, if a regulated entity is already using existing models to satisfy the requirements under its required capital regime, the appropriate supervisory authority may permit the use of the same models for initial margin purposes, so long as they are at least as conservative.

[13] Subject to approval by the relevant supervisory authority, a limited degree of netting may be performed at the level of a specific derivative contract to compute the notional amount that is applied to the margin rate. As an example, one pay fixed interest rate swap with a maturity of 3 years and a notional of 100 could be netted against another pay floating interest rate swap with a maturity of 3 years and a notional of 50 to arrive at a single notional of 50 to which the appropriate margin rate would be applied. Derivatives with different fundamental characteristics such as underlying, maturity and so forth may not be netted against each other for the purpose of computing the notional amount against which the standardised margin rate is applied.

Derivative market participants should not be allowed to switch between model- and schedule- based margin calculations in an effort to “cherry pick” the most favourable initial margin terms. Accordingly, the choice between model- and schedule- based initial margin calculations should be made on a consistent basis over time, for all transactions within the same well-defined asset class, and if applicable, should comply with any other requirements imposed by the entity’s supervisory authority.

At the same time, it is quite possible that a market participant may use a model-based initial margin calculation for one class of derivatives in which it commonly deals and a schedule-based initial margin in the case of some derivatives that are less routinely employed in its trading activities. A firm needs not use only a model-based approach or only a schedule-based approach for the entirety of its derivative activities. Rather, this requirement is meant to ensure that market participants do not use model-based margin calculations in those instances in which such calculations are more favourable than schedule-based requirements and schedule-based margin calculations when those requirements are more favourable than model-based margin requirements.

Initial margin should be collected at the outset of a transaction, and collected thereafter on a routine and consistent basis upon changes in measured potential future exposure as trades are added to or subtracted from the portfolio. To mitigate procyclicality impacts, large, discrete calls for (additional) initial margin due to “cliff-edge” triggers should be largely discouraged.

The build-up of additional initial margin should be gradual so that it can be managed over time. Moreover, margin levels should be sufficiently conservative to avoid procyclicality, even during periods of low market volatility. The specific requirement that initial margin be set consistent with a period of stress is meant to limit procyclical changes in the amount of initial margin required.

Parties to derivative contracts should have rigorous and robust dispute resolution procedures in place with their counterparty before the onset of a transaction. In the event that a margin dispute arises, the collecting party should make all necessary and appropriate efforts, including timely initiation of dispute resolution protocols, to resolve the dispute and collect the required amount of initial margin in a timely fashion.

Proposed requirement – variation margin

For purposes of informing the variation margin baseline, the full net current exposure of the non-centrally-cleared derivative must be used.

To reduce adverse liquidity shocks and in order to effectively mitigate counterparty credit risk, variation margin should be calculated and collected for non-centrally-cleared derivatives subject to a single, legally enforceable netting agreement with sufficient frequency (eg daily). In addition, minimum transfer amounts (MTAs) should be set sufficiently low so as to ensure that current exposure does not build up before variation margin is exchanged between counterparties.

In addition, the valuation of a derivative’s current exposure can be complex and, at times, become subject to question or dispute by one or both parties. Moreover, in the case of non-centrally-cleared derivatives, these instruments are likely to be relatively illiquid, often with little or no price transparency making the process of agreeing on current exposure amounts for variation margin purposes even more challenging.

As with initial margin, parties to derivative contracts should have rigorous and robust dispute resolution procedures in place with their counterparty before the onset of a transaction. In the event that a margin dispute arises, the collecting party should make all necessary and appropriate efforts, including timely initiation of dispute resolution protocols, to resolve the dispute and collect the required amount of variation margin in a timely fashion.

Commentary

Given the diversity of non-centrally-cleared derivatives, there may be practical difficulties for supervisors to stipulate in advance the margin level for each type of derivative. In addition, the pre-determined margin levels may become outdated as market conditions change. Accordingly, permitting the use of internal or third party models that have been approved by supervisors to calculate baseline initial margin amount is desirable as long as those models are appropriately supervised and are subject to internal governance standards. However, some firms may be unable or unwilling to develop internal margin calculation models that meet regulators' requirements. To provide a conservative alternative in those cases, the BCBS and IOSCO are proposing a standardised schedule that sets out the margin level for each broad category of derivative, in cases where an existing standardised schedule is not available for a regulated entity, as approved by an appropriate supervisory authority.

The existence of both a model-based and schedule-based initial margin standard provides derivative users with the possibility to choose between either approach. Derivative market participants should be able to choose between a more risk sensitive but potentially less transparent quantitative model and a less risk sensitive but more transparent initial margin schedule for calculating initial margin amounts. At the same time, derivative market participants should not be allowed to switch between model- and schedule- based margin calculations in an effort to cherry pick the most favourable initial margin terms. Accordingly, the choice between a model and schedule based initial margin calculations should be made on a consistent basis over time.

While regulatory approval, internal governance standards and limitations on the extent of hedging and diversification all work to ensure that initial margin models are used prudently and thoughtfully when determining initial margin levels, the BCBS and IOSCO are also concerned about the possibility that models may result in disparities in margin requirements between cleared and non-cleared derivatives as well as disparities between initial margin requirements across financial institutions that make use of internal models. In particular, initial margin amounts are a primary dimension along which derivative market participants may seek to establish a competitive advantage. In order to ensure that margin models do not provide an undue advantage to non-centrally-cleared derivatives or to a particular set of financial institutions, initial margin requirements generated by models should be examined and these results should be compared across financial institutions as well as with initial margins that are required on similar cleared derivatives. Data on margin levels could be collected and reviewed on a systematic basis or on an occasional basis as the need arises. Moreover, the set of products examined in the data collection could be fixed over time or could evolve over time as market practices change. No firm decisions have yet been made regarding the form that this analysis will take.

The applicable netting agreements used by market participants will need to be effective under the laws of the relevant jurisdictions and supported by periodically-updated legal opinions. Supervisory authorities and relevant market participants should consider how those requirements could best be complied with in practice.

The BCBS and IOSCO also recognise that national supervisors may wish to alter margin requirements to achieve macroprudential outcomes, such as limiting the build-up of leverage

and the expansion of balance sheets. One method for achieving this may be for the relevant authority to impose a macroprudential ‘add-on’ or buffer on top of baseline (or minimum) margin levels. 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.

The BCBS and IOSCO seek comment on the proposed methodologies, including specific margin schedule that has been proposed.

Q13. Are the proposed methodologies for calculating initial margin appropriate and practicable? With respect to internal models in particular, are the proposed parameters and prerequisite conditions appropriate? If not, what approach to the calculation of baseline initial margin would be preferable and practicable, and why?

Q14. Should the model-based initial margin calculations restrict diversification benefits to be operative within broad asset classes and not across such classes as discussed above? If not, what mitigants can be used to effectively deal with the concerns that have been raised?

Q15. With respect to the standardised schedule, are the parameters and methodologies appropriate? Are the initial margin levels prescribed in the proposed standardised schedule appropriately calibrated? Are they appropriately risk sensitive? Are there additional dimensions of risk that could be considered for inclusion in the schedule on a systematic basis?

Q16. Are the proposed methodologies for calculating variation margin appropriate? If not, what approach to the calculation of baseline variation margin would be preferable, and why?

Q17. With what frequency should variation margin payments be required? Is it acceptable or desirable to allow for less frequent posting of variation margin, subject to a corresponding increase in the assumed close out horizon that is used for the purposes of calculating initial margin?

Q18. Is the proposed framework for variation margin appropriately calibrated to prevent unintended procyclical effects in conditions of market stress? Are discrete calls for additional initial margin due to “cliff-edge” triggers sufficiently discouraged?

Q19. What level of minimum transfer amount effectively mitigates operational risk and burden while not allowing for a significant build-up of uncollateralised exposure?

Element 4: Eligible collateral for margin

Background discussion

Even in cases where margin is collected in an amount sufficient to fully protect a firm from the default of a derivative counterparty, the firm may nonetheless be exposed to loss if that margin is not in a form that can be readily liquidated at full value at the time of default, particularly during a period of financial stress.

Accordingly, the BCBS and IOSCO have considered the types of collateral that should be deemed eligible for use in meeting the margin requirements, evaluating several different approaches. One approach would be to limit eligible collateral to only the most liquid, highest-quality assets, such as cash and high-quality sovereign debt, on the grounds that

doing so would best ensure the value of collateral held as margin could be fully realised in a period of financial stress. Another approach would be to permit a broader set of eligible collateral, including assets like liquid equity securities and corporate bonds, and address the potential volatility of such assets through application of appropriate haircuts to their valuation for margin purposes. Potential advantages of the latter approach would include (i) a reduction of the potential liquidity impact of the margin requirements by permitting firms to use a broader array of assets to meet margin requirements and (ii) better alignment with central clearing practices, in which CCPs frequently accept a broader array of collateral, subject to collateral haircuts. After evaluating each of these alternatives, the BCBS and IOSCO have proposed the second approach (broader eligible collateral).

Key principle

To ensure that assets collected as collateral for initial and variation margin purposes can be liquidated in a reasonable amount of time to generate proceeds that could sufficiently protect collecting entities covered by the proposed requirements from losses on non-centrally-cleared derivatives in the event of a counterparty default, these assets should be highly liquid and should, after accounting for an appropriate haircut, be able to hold their value in a time of financial stress. The set of eligible collateral should recognise that assets that are liquid in normal market conditions may rapidly become illiquid in times of financial stress. In addition to having good liquidity, eligible collateral should not be exposed to excessive credit, market and FX risk. To the extent that the value of the collateral is exposed to credit, market, liquidity and FX risks (including through differences between the currency of the collateral asset and the currency of settlement), appropriately risk-sensitive haircuts should be applied. More importantly, the value of the collateral should not exhibit a significant correlation with the creditworthiness of the counterparty or the value of the underlying non-centrally-cleared derivatives portfolio in such a way that would undermine the effectiveness of the protection offered by the margin collected (ie the so-called “wrong way risk”). Accordingly, securities issued by the counterparty or its related entities should not be accepted as collateral. Accepted collateral should also be reasonably diversified.

Proposed requirement

As a guide, examples of the types of eligible collateral that satisfy the key principle would generally include:

- Cash;
- High quality government and central bank securities;
- High quality corporate bonds;
- High quality covered bonds;
- Equities included in major stock indices; and
- Gold.

The illustrative list above should not be viewed as being exhaustive. Additional assets and instruments that satisfy the key principle may also serve as eligible collateral. Also, in different jurisdictions, some particular forms of collateral may be more abundant or generally available due to institutional market practices or norms. Eligible collateral can be denominated in any currency in which payment obligations under the non-centrally-cleared derivative may be made, or in highly-liquid foreign currencies subject to appropriate haircuts to reflect the inherent FX risk involved.

Potential methods for determining appropriate haircuts could include either internal or third-party quantitative model-based haircuts or schedule-based haircuts. Each alternative is briefly discussed below.

As in the case of initial margin models, risk-sensitive quantitative models, both internal or third party, could be used to establish haircuts so long as the model is approved by supervisors and is subject to appropriate internal governance standards. As in the case of initial margin models, an unregulated derivative counterparty may use an approved quantitative model. In addition to the points regarding the use of internal models discussed in the context of initial margin, the BCBS and IOSCO also note that eligible collateral may vary across national jurisdictions owing to differences in the availability and liquidity of certain types of collateral. As a result, it may be difficult to establish a standardised set of haircuts that would apply to all types of collateral across all jurisdictions that are consistent with the key principle.

In addition to haircuts based on quantitative models, as in the case of initial margin, derivative counterparties should also have the option of using standardised haircuts that would provide transparency and limit procyclical effects. The BCBS and IOSCO have proposed a standardised schedule of haircuts for the list of assets appearing above. The haircut levels are derived from the standard supervisory haircuts adopted in the Basel Accord's comprehensive approach to collateralised transactions framework, and can be found in Appendix B. In the event that the BCBS chooses to make changes to these haircuts for regulatory capital purposes, the BCBS and IOSCO would expect to adopt these changes in the context of the margin requirements for non-centrally-cleared derivatives absent a compelling policy reason not to do so. However, if a regulated entity is subject to an existing standardised, haircut-based approach under its required capital regime, the appropriate supervisory authority may permit the use of the same haircuts for initial margin purposes, so long as they are at least as conservative. While haircuts serve a critical risk management function in ensuring that pledged collateral is sufficient to cover margin needs in a time of financial stress, other risk mitigants should also be considered when accepting non-cash collateral. In particular, entities covered by the proposed requirements should ensure that the collateral collected is not overly concentrated in terms of an individual issuer, issuer type and asset type.

In the event that a dispute arises over the value of eligible collateral, the collecting party should make all necessary and appropriate efforts, including timely initiation of dispute resolution protocols, to resolve the dispute and collect any required margin in a timely fashion.

Commentary

Market conditions and asset availability differ across jurisdictions. National supervisors should develop their own list of eligible collateral assets based on the key principle, taking into account the conditions of their own markets and making reference to the list of examples of eligible collateral under the proposed requirement section. Allowing jurisdictions to develop their own list of eligible collateral assets is expected to reduce margining requirements' impact on the liquidity and prices of eligible assets, reduce concentration risk, and provide sufficient flexibility to permit new assets to serve as collateral in the future as markets evolve.

Subject to meeting the key principle, the scope of eligible collateral assets should be kept broad, with appropriate haircuts. It is expected that demand for high quality liquid assets may increase with the implementation of various regulatory reforms, including central-clearing, margin requirements for non-centrally-cleared derivatives and Basel liquidity requirements.

Keeping the scope of eligible assets broad may help relieve pressure on the supply of eligible collateral assets. It may also help avoid concentration risks.

Haircut requirements should be transparent and easy to calculate, so as to facilitate payments between counterparties, avoid disputes and reduce overall operational risk. Haircut levels should be risk-based and should be calibrated appropriately to reflect the underlying risks that affect the value of eligible collateral, such as market price volatility, liquidity, credit risk and FX volatility, during both normal and stressed market conditions. Haircuts should be set conservatively to avoid procyclicality. For example, haircuts should be set at a sufficiently high level during "good times" such that the need for sharp and sudden increases in times of stress can be avoided.

Given the diversity of eligible collateral assets, there may be practical difficulties for supervisors to stipulate in advance the haircut level for each type of collateral. The pre-determined haircut levels may also become outdated as market conditions change. Adopting internal or third party models that have been approved by supervisors to calculate haircut level may therefore be desirable. However, some firms may be unable or unwilling to develop internal haircut calculation models that meet regulators' requirements. To provide a conservative alternative in those cases, the BCBS and IOSCO have proposed a set of standardised haircuts that can be used in lieu of model-based haircuts.

Schedule-based haircuts should be sufficiently stringent so that firms have an incentive to develop internal models. To prevent firms from selectively applying the standardised tables where this would produce a lower haircut, firms would have to adopt either the standardised tables approach or internal/third party models approach consistently over time for all the collateral assets within the same well-defined asset class.

The BCBS and IOSCO seek comment on the proposed approach to eligible collateral, including the standardised haircuts proposed.

Q20. Is the scope of proposed eligible collateral appropriate? If not, what alternative approach to eligible collateral would be preferable, and why?

Q21. Should concrete diversification requirements, such as concentration limits, be included as a condition of collateral eligibility? If so, what types of specific requirements would be effective? Are the standardised haircuts prescribed in the proposed standardised haircut schedule sufficiently conservative? Are they appropriately risk sensitive? Are they appropriate in light of their potential liquidity impact? Are there additional assets that should be considered in the schedule of standardised haircuts?

Element 5: Treatment of provided margin

Background discussion

The legal capacity in which initial margin is held or exchanged can have a significant influence on how effective that margin is in protecting a firm from loss in the event of the default of a derivatives counterparty. In particular, when two parties to a derivatives transaction exchange initial margin with one another on a net or commingled basis, there can be little or no actual increase in the extent to which either firm is protected from the default of the other. Although a firm has received initial margin as collateral, the firm also now bears

the risk of additional loss on the initial margin that it has provided to the counterparty if the counterparty defaults, which may offset some or all of the benefits of initial margin received. The risk would be exacerbated if the counterparty re-hypothecates or re-uses the provided margin, which could result in third parties having legal or beneficial title over the margin, or a merging or pooling of the margin with assets belonging to the others as a result of which the firm's claim to the margin becomes entangled in legal complications, thus delaying or even denying the return of re-hypothecated / re-used assets in the event that the counterparty defaults.

Under current market practices, the exchange of two-way initial margin in bilateral trades is not universal. Accordingly, requiring the segregation or other protection of initial margin collateral may create material incremental liquidity demands and trading costs relative to current practices, as (i) firms would be required to divert significantly more liquid assets to provide initial margin to counterparties on a gross, rather than net, basis, and (ii) firms would no longer retain the ability to use initial margin collected as a source of funding, for re-hypothecation or re-use, or for other discretionary purposes.

Given the potential for the net treatment of provided margin to undermine the general benefits of the proposed margin requirements, there was broad consensus among the BCBS and IOSCO that the proposed requirements should address these risks by requiring the gross exchange and the segregation or other effective protection of provided initial margin, so as to preserve its capacity to fully offset the risk of loss in the event of the default of a derivatives counterparty.

Key principle

Because the exchange of initial margin on a net basis may be insufficient to protect two market participants with large, gross derivatives exposures to one another in the case of one of those firm's failure, the gross initial margin between such firms should be exchanged. Initial margin collected should be held in such a way as to ensure that (i) the margin collected is immediately available to the collecting party in the event of the counterparty's default, and (ii) the collected margin must be subject to arrangements that fully protect the posting party in the event that the collecting party enters bankruptcy to the extent possible under applicable law. Jurisdictions are encouraged to review the relevant local laws to ensure that collateral can be sufficiently protected in the event of bankruptcy.

Proposed requirement

Initial margin should be exchanged on a gross basis and held in a manner consistent with the key principle above. Cash and non-cash collateral collected as initial margin should not be re-hypothecated or re-used.

Commentary

There are many different ways to protect provided margin, but each carries its own risk. For example, the use of third party custodians is generally considered to offer the most robust protection, but there have been cases where access to assets held by third party custodians has been limited or practically difficult. The level of protection would also be affected by the local bankruptcy regime, and would vary across jurisdictions.

There was broad consensus within the BCBS and IOSCO that in order to achieve the key principle above, assets collected as initial margin should not be re-hypothecated or re-used.

While there was broad consensus that re-hypothecation or re-use of initial margin should be prohibited in order to ensure that property would be readily available to derivative counterparties if the receiving firm failed, the US SEC has raised a question as to whether re-hypothecation or re-use of initial margin should be permissible, in very limited circumstances, provided that initial margin was subject to a protection regime reasonably designed to ensure that property could be returned promptly if the firm failed. Such a protection regime would include certain requirements such as requirements that (i) customer assets must be segregated from the firm's proprietary assets and could not be used for proprietary purposes, (ii) if initial margin were re-hypothecated, the receiving firm must continue to treat those assets as customer assets; and (iii) the applicable insolvency regime also must provide the counterparty with a first priority claim on the initial margin it had deposited with the failed firm.

Different ways to protect provided margin may also have unequal implications on different market participants. The US SEC, for example, has pointed out that, the requirement may impose a disproportionate impact on US SEC-registered broker-dealers in comparison to banks, as a result of the differences in regulatory capital treatment of the initial margin deposited with third party custodians. Jurisdictions are encouraged to review the relevant local regulatory requirements to ensure a level playing field across all market participants.

The BCBS and IOSCO seek comment on the proposed approach to the treatment of provided margin.

Q22. Are the proposed requirements with respect to the treatment of provided margin appropriate? If not, what alternative approach would be preferable, and why? Should the margin requirements provide greater specificity with respect to how margin must be protected? Is the proposed key principle and proposed requirement adequate to protect and preserve the utility of margin as a loss mitigants in all cases?

Q23. Is the requirement that initial margin be exchanged on a gross, rather than net basis, appropriate? Would the requirement result in large amounts of initial margin being held by a potentially small number of custodian banks and thus creating concentration risk?

Q24. Should collateral be allowed to be re-hypothecated or re-used by the collecting party? Are there circumstances and conditions, such as requiring the pledgee to segregate the re-hypothecated assets from its proprietary assets and treating the assets as customer assets, and/or ensuring that the insolvency regime provides the pledger with a first priority claim on the assets that are re-hypothecated in the event of a pledgee's bankruptcy, under which re-hypothecation could be permitted without in any way compromising the full integrity and purpose of the key principle? What would be the systemic risk consequences of allowing re-hypothecation or re-use?

Element 6: Treatment of transactions with affiliates

Background discussion

Derivative transactions between affiliated entities, particularly where they are not subject to consolidated supervision, present special issues in the context of margin requirements. On the one hand, affiliated entities often make risk management and other decisions on a consolidated basis, and have valid business reasons to structure arrangements between affiliated entities for reasons other than avoiding losses at one affiliate in the event the other affiliate defaults. On the other hand, particularly in the cross-border context, significant

exposure to the default of an affiliated derivatives counterparty, particularly one that is not subject to consolidated supervision and or lacking in strong parent company support, could pose the same or similar systemic risks as exposure to unaffiliated counterparties.

Although current market practices on this point vary, the exchange of initial or variation margin by affiliated parties to a non-centrally-cleared derivative is not customary. Accordingly, extending the initial margin requirements to such transactions would likely create additional liquidity demands for firms engaging in such transactions. However, since the posting of variation margin from one affiliated entity to another simply involves the movement of collateral among affiliated entities, it should generally not create incremental liquidity demands on a net, consolidated basis, though it may constrain a consolidated firm's discretion to hold existing liquidity resources at one affiliate rather than another.

The BCBS and IOSCO considered several approaches to the treatment of affiliate transactions. One approach would be to subject such transactions to the same margin requirements applicable to transactions with non-affiliates. The advantage of this approach would be that it would fully extend the systemic risk reduction benefits of the margin requirements to intra-group arrangements; however, doing so would require a corresponding increase in liquidity demands on the relevant firm. Another approach would be to fully exempt such transactions from the margin requirements, thereby eliminating any incremental liquidity demands, but also providing no reduction in the systemic risk posed by such transactions.

There was general consensus among the BCBS and IOSCO on a compromise approach pursuant to which non-centrally-cleared derivatives between affiliated entities would be subject to variation margin requirements, but with initial margin requirements left to national discretion. The BCBS and IOSCO believe that this compromise approach represents a reasonable balance of the policy benefits and implementation costs of the proposed margin requirements.

Key principle

Transactions between a firm and its affiliates should be subject to appropriate variation margin arrangements to prevent the accumulation of significant current exposure to any affiliated entity arising out of non-centrally-cleared derivatives.

Proposed requirement

Full variation margin should be exchanged between affiliates.

In terms of initial margin, local supervisors should review their own market conditions and put in place requirements as appropriate.

Commentary

Requiring variation margin on inter-affiliate transactions is advisable as it presents no net costs to a group but does protect against the possibility that one affiliate builds up a large and uncollateralised exposure to another affiliate or parent that could jeopardise the entire group.

Despite the BCBS and IOSCO consensus view and proposal that variation margin be required on transactions between affiliates, some members believe that an exchange of variation margin is not necessary between affiliates, subject to compliance with specific criteria specified by the appropriate supervisory authority (eg requirements that the affiliates

share the same appropriate centralised risk evaluation, measurement and control procedures, the affiliates are included in the same consolidation on a full basis, and there is no current or foreseen material practical or legal impediment to the prompt transfer of own funds or repayment of liabilities between the counterparties).

While requiring the posting and the segregation of initial margin in inter-affiliate transactions would likely bring some benefits, it could tie up substantial liquidity within a group. Recognising that such transactions frequently serve risk management or other purposes that are different from non-centrally-cleared derivative transactions with third parties, initial margin requirements (if any) should be established at the discretion of national supervisors consistent with the nature and function of such arrangements within the relevant local market.

The BCBS and IOSCO seek comment on the proposed treatment of transactions with affiliates.

Q25. Are the proposed requirements with respect to the treatment of non-centrally-cleared derivatives between affiliated entities appropriate? If not, what alternative approach would be preferable, and why? Would giving local supervisors discretion in determining the initial margin requirements for non-centrally-cleared derivatives between affiliated entities result in international inconsistencies that would lead to regulatory arbitrage and unlevel playing field?

Q26. Should an exchange of variation margin between affiliates within the same national jurisdiction be required? What would be the risk, or other, implications of not requiring such an exchange? Are there any additional benefits or costs to not requiring an exchange of variation margin among affiliates within the same national jurisdiction?

Element 7: Interaction of national regimes in cross-border transactions

Background discussion

The existing structure of markets for non-centrally-cleared derivatives is global in scope. Key derivatives market participants are often engaged in derivatives activity through a variety of legal entities in different national jurisdictions and frequently deal with counterparties on a cross-border basis. Given the global nature of these markets, and as noted in the Executive Summary, the effectiveness of margin requirements could be undermined if the requirements were not consistent internationally.

Accordingly, the BCBS and IOSCO have considered, as part of the framework for proposed margin requirements, specific approaches to ensuring that implementation of the margin requirements at a national jurisdiction-level is appropriately interactive – that is, that each national jurisdiction's rule is territorially complementary such that (i) regulatory arbitrage opportunities are limited, (ii) a level playing field is maintained, (iii) there is no application of duplicative or conflicting margin requirements to the same transaction or activity, and (iv) there is substantial certainty as to which national jurisdiction's rules apply. When a transaction is subject to two sets of rules (duplicative requirements), the home and the host regulators should endeavour to apply only one set of rules, by recognising the equivalence and comparability of their respective rules.

Key principle

Regulatory regimes should interact so as to result in sufficiently consistent and non-duplicative regulatory margin requirements for non-centrally-cleared derivatives across jurisdictions.

Proposed requirement

The margin requirements in a jurisdiction should be applied to legal entities established in that local jurisdiction, which would include locally established subsidiaries of foreign entities, in relation to the initial and variation margins that they collect. Home-country supervisors should permit a covered entity to comply with the margin requirements of a host-country margin regime with respect to its derivative activities, so long as the home-country supervisor considers the host-country margin regime to be consistent with the proposed margin requirements described in the paper. A branch should be treated as part of the same legal entity as the headquarter, thus subject to the margin requirements of the jurisdiction where the headquarter is established.

Commentary

The following illustrative examples demonstrate how the proposed requirement is intended to work in the enumerated hypothetical circumstances:

Circumstance 1: US bank enters into derivative with German bank.

- US bank subject to margin rule of relevant US regulator and German bank subject to margin rule of relevant German regulator.

Circumstance 2: German subsidiary of US bank enter into derivative with German bank.

- Both German subsidiary of US bank and German bank subject to margin rule of relevant German regulator.

Circumstance 3: UK subsidiary of US bank enters into derivative with UK subsidiary of Swiss bank.

- Both UK subsidiary of US bank and UK subsidiary of Swiss bank subject to margin rule of relevant UK regulator.

Circumstance 4: UK subsidiary of Swiss bank enters into derivative with US bank.

- UK subsidiary of Swiss bank subject to margin rule of UK regulator and US bank subject to margin rule of relevant US regulator.

Circumstance 5: Jurisdiction X subsidiary of US bank enters into derivative with German bank where the US regulator considers the margin regime of jurisdiction X to be not consistent with the proposed margin requirements described in the paper.

- Jurisdiction X subsidiary of US bank subject to margin rule of US regulator and German bank subject to margin rule of relevant German regulator.

In addition, the BCBS and IOSCO propose that branches be treated as part of the same legal entity as the headquarters. As an example, a US branch of a French bank will be treated as a French legal entity in cross border transactions.

Where not all jurisdictions adopt all the proposed margin requirements, conflicts may arise under certain circumstances, including where a home-country supervisor considers a host-country's regime to be inconsistent with the margin requirements in this paper and hence require the subsidiary of a group under its supervision to follow the home-country requirements, but at the same time the host-country supervisor requires the same subsidiary to comply with the host-country requirements. In the case of a branch, it is the same legal entity as its headquarter and, as such, the rules of the headquarter's jurisdiction will apply. However, relevant rules of the host jurisdiction where the branch is situated may also have to be observed. Where the rules in the home and host jurisdictions are different, the subsidiary/branch shall observe the more stringent of the two, thereby satisfying both the home-country and the host-country requirements, and resolving any compliance issues. Supervisors should seek to promote and facilitate close cooperation and coordination among supervisors for cross-border implementation of margin requirements.

The BCBS and IOSCO seek comment on the proposed approach to the interaction of national regimes in cross-border transactions.

Q27. Is the proposed approach with respect to the interaction of national regimes in cross-border transactions appropriate? If not, what alternative approach would be preferable, and why?

Part C: Impact of margin requirements for non-centrally-cleared derivatives

The potential benefits of margin requirements must be weighed against their liquidity impact and other costs. There are a number of challenges inherent in attempting to precisely quantify the liquidity impact of the proposed margin requirements, including substantial uncertainty regarding (i) the extent to which certain types of non-centrally-cleared derivatives will move to central clearing in the near future, (ii) the extent to which derivative market participants may change their behaviour in light of new margin requirements, and (iii) the relative interaction of the margin requirements with other prudential regimes applicable to liquidity matters, including the LCR and NSFR. These uncertainties are significant and suggest that precise quantification of the impact of any proposed margin regime is not feasible with existing data and methods.

Notwithstanding the uncertainties associated with estimating the liquidity impact of the proposed margin requirements, based on preliminary analysis, the BCBS and IOSCO believe that the liquidity impact of any variation of the margin requirements contemplated above will be both material and significant. The relative significance of the margin requirement's liquidity impact will depend on several key choices regarding the requirements' ultimate shape, several of which appear most important:

- A choice to adopt a broad scope of applicability (eg universal two-way margin with a low threshold) is likely to significantly increase liquidity impact and overall impact on market function;

- A choice to require the segregation and no re-hypothecation/re-use of initial margin is likely to significantly increase liquidity impact; and
- A choice to exempt certain types of non-centrally-cleared derivatives may significantly decrease liquidity impact and overall impact on market function.

In light of the potential liquidity impact of the proposed margin requirements, the BCBS and IOSCO are conducting a QIS that will seek to better quantify the impact of the proposed margin requirements. The QIS will focus primarily on the liquidity impact arising from the gross exchange and segregation of initial margin on non-centrally-cleared derivatives that are expected to remain in the market over the next several years. The QIS will explore the initial margin requirements associated with the BCBS and IOSCO proposal to require two-way, segregated initial margin as well as the alternative proposals that have been discussed and on which comment has been sought. The QIS will also seek to address the extent to which the types of assets that meet the eligibility criteria that have been proposed are available to satisfy the proposed margin requirements.

Ultimately, the impact of margin requirements on non-centrally-cleared derivatives is complex and may only be fully understood over time with the benefit of hindsight. The BCBS and IOSCO understand that precise quantification of the impact is not feasible but also believe that a targeted survey and analysis of the impact of the proposed requirements on large, internationally active financial institutions with significant non-centrally-cleared derivatives activities will provide incremental information that will be informative and useful for balancing the need to impose margin requirements to reduce systemic risks and promote central clearing against the liquidity costs stemming from these requirements.

The QIS is expected to engage a significant number of primarily internationally active institutions that engage in significant amounts of derivative transactions across a number of national jurisdictions. The QIS will be conducted during the consultation period. The results of the QIS will be considered in conjunction with the received comments in forming a final proposal on margin requirements on non-centrally-cleared derivatives.

Appendix A

Proposed Standardised Initial Margin Schedule

Asset Class	Initial Margin Requirement (% of notional exposure)
Credit: 0-2 year duration	2
Credit: 2-5 year duration	5
Credit 5+ year duration	10
Commodity	15
Equity	15
Foreign Exchange\Currency	6
Interest Rate: 0-2 year duration	1
Interest Rate: 2-5 year duration	2
Interest Rate: 5+ year duration	4
Other	15

Appendix B

Proposed Standardised Haircut Schedule

Asset Class	Haircut (% of market value)
Cash in same currency	0
Cash in different currency	8
High quality government and central bank securities: residual maturity less than 1 year	0.5
High quality government and central bank securities: residual maturity between 1 and 5 years	2
High quality government and central bank securities: residual maturity greater than 5 years	4
High quality corporate\covered bonds: residual maturity less than 1 year	1
High quality corporate\covered bonds: residual maturity greater than 1 year and less than 5 years	4
High quality corporate\covered bonds: residual maturity greater than 5 years	8
Equities included in major stock indices	15
Gold	15