ISDA Safe, Efficient Markets

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Dear Sirs

Exposure Draft on Net Stable Funding Ratio

Introduction

The International Swaps and Derivatives Association, Inc. ("**ISDA**")[1] is grateful for the opportunity to respond to the Exposure Draft ("**Consultation**") on Net Stable Funding Ratio ("**NSFR**") published by Bank Negara Malaysia ("**BNM**") on 27 September, 2017.

ISDA welcomes the concept of a longer term measure of structural liquidity, and strongly supports the underlying policy goals that led to the development of the NSFR by the Basel Committee on Banking Supervision ("**BCBS**"), including the core objective of requiring banks to develop and maintain sustainable funding structures. We appreciate the work that BNM is completing in this area, and for the opportunity to respond to the questions posed in the proposed rulemaking.

By way of background, ISDA, in concert with other organizations, has expressed to the BCBS very significant continuing reservations on the current BCBS NSFR standard and its impact on capital markets and derivatives activities. We urge BNM to discuss the analysis it conducted in connection with a final rulemaking with BCBS members with a view to addressing these concerns on a global basis. Whilst the BCBS did consult prior to finalising the NSFR, it also introduced a number of new elements in the final standard which it did not consult on, nor – as it acknowledged– did it have sufficient data to analyse. ISDA makes a number of recommendations in this response related to those elements (among other things), and we believe it is important that BNM carefully examine several issues of the NSFR as set out in the proposed rule if it does move forward with adoption of a longer term funding measure.

As BNM has noted[2], there continues to be uncertainty on the implementation schedule for NSFR at the global level, and we are supportive of BNM not implementing NSFR requirements before 1 January, 2019. We are also supportive of BNM providing sufficient notice to banking institutions prior to implementation being finalized.

[1] Since 1985, ISDA has worked to make the global derivatives markets safer and more efficient. Today, ISDA has more than 875 member institutions from 68 countries. These members comprise a broad range of derivatives market participants, including corporations, investment managers, government and supranational entities, insurance companies, energy and commodities firms, and international and regional banks. In addition to market participants, members also include key components of the derivatives market infrastructure, such as exchanges, clearing houses and repositories, as well as law firms, accounting firms and other service providers. Information about ISDA and its activities is available on the Association's web site: www.isda.org.

[2] http://www.bnm.gov.my/index.php?ch=en_announcement&pg=en_announcement&ac=575&lang=en, Bank Negara Malaysia, Exposure Draft on Net Stable Funding Ratio.

In this response, we have not responded to the specific questions in the Consultation, but have focused on concerns related to the treatment of derivatives. In particular, we respectfully request that the treatment of derivatives under the NSFR needs to be reconsidered. Specifically, we believe that two broad elements of the framework would benefit from further consideration: the recognition of margin received by banks and the 20% required stable funding ("**RSF"**) add-on for derivatives liabilities. These are discussed in detail in the *Specific Comments* section. Without modification, these two components, according to the industry quantitative impact study ("**QIS**"), will result in:

- An estimated additional funding requirement allocation of €767 billion for the entire industry (extrapolated from a €345 billion requirement across 12 banks[3]) - this is approximately 10 times larger than the total amount of actual funding required; and
- A resulting additional annual cost (based on a long term funding cost of between 150-200bps) of between €12 - €15 billion.

We would also like to present the latest QIS on potential alternatives to the BCBS 20% RSF add-on for derivative liabilities conducted by the industry based on data submitted by 15 large international banks to the BCBS, as a part of the March 2017 monitoring exercise based on December 2016 data. The executive summary for this QIS is enclosed as *Appendix 1 - 2nd ISDA NSFR QIS Analysis*.

We would especially like to highlight the recent announcement from BCBS on 6 October, 2017[4], where BCBS agreed to allow national discretion for the NSFR's treatment of derivative liabilities. Jurisdictions may lower the value of the RSF add-on for derivative liabilities up to a floor of 5%.

We are encouraged by this decision to allow for national discretion to lower the add-on, floored at 5%, while BCBS considers whether to consult on alternatives. We are supportive of the floor of 5%, and we respectfully request BNM to reconsider the 20% RSF add-on in light of this announcement. We request the opportunity to provide BNM with a more detailed analysis of the 5% floor at a later date, once the analysis is complete.

We believe that unless the rules are revised, the current requirements could severely impact the availability and pricing of hedging products for end users, and negatively impact the development of robust capital markets. End users use derivatives to hedge their risks, and any rules that could constrain the use of derivatives may:

(i) impact companies ability to hedge their funding and currency risks on both newly issued debt and banks loans;
(ii) hinder infrastructure projects capacity to eliminate mismatches between their revenues and liabilities, thus making such assets less attractive and less safe from an investment perspective;
(iii) constrict companies ability to hedge their commercial and day-to-day risks resulting in a weakening of their balance sheets, uncertainty in financial performance, and more expensive funding;
(iv) obstruct cross-border capital flows;
(v) impede investors looking to hedge the risks inherent in capital markets instruments and their ability to provide sufficient returns to policyholders; and
(vi) disrupt flows of foreign direct investment.

Finally, we encourage BNM to take the changes that result from BNMs final analysis back to the BCBS to obtain the necessary revisions of the BCBS NSFR standards, so that a sensible NSFR that is appropriately targeted to its purposes can be implemented consistently on a global basis. Global liquidity standards are very new compared to the global approaches to capital requirements. Therefore, we believe it is important that they be adjusted where necessary to find methods that are more reflective of the liquidity and funding risks that the international liquidity standards are attempting to address.

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[3] Estimate based on assumption that survey participants represent 45% of total market impact.
[4] http://www.bis.org/press/p171006.htm, BCBS, Implementation of net stable funding ratio and treatment of derivative liabilities.

Specific Comments

1. Recognition of margin received by banks

Under the final BCBS framework, provided certain conditions are met, NSFR derivative assets and liabilities are calculated after counterparty netting and deduction of variation margin. However, the rules introduce an asymmetry between posted and received collateral, which creates an oversized funding requirement not commensurate with the true funding obligations associated with the underlying derivatives portfolios. More generally, the asymmetrical treatment of variation margin received by banks creates unnecessary frictions with regulator-approved variation margin standards.

As described below, we believe that there are three narrowly tailored accommodations that should be adopted by BNM to better capture the funding value of margin received by banks:

(i) recognising the full value of all cash variation margin received; and
(ii) recognising the full value of all qualifying securities variation margin received, subject to liquidity coverage ratio ("**LCR**") high quality liquid asset ("**HQLA**")-based haircuts.

i. Recognition of all cash variation margin received

For derivatives liabilities all (posted) collateral must be netted, whereas received collateral related to derivatives assets can only be netted when it is allowable cash collateral. The NSFR does not recognise a large portion of cash collateral received because recognition is dependent on the Basel III Leverage Ratio netting criteria. This is particularly problematic because the leverage ratio netting criteria are exposure-based and do not reflect underlying funding risk.

We are concerned because the linkage to the netting criteria leads to extreme results that have no grounding in funding or liquidity risk management. These include:

- The disallowance of collateral as soon as an agreement exhibits a minimal amount of under-collateralisation (where the mark-to-market is not fully extinguished[5]) which introduces significant NSFR volatility that is not related to funding risk;
- The disallowance of collateral received that is not calculated and exchanged on at least a daily basis[6]. This means firms would have to ignore all collateral received from counterparties that post collateral more infrequently; and
- Cash variation margin received that is not in the same currency of the currency of settlement of the derivative contract is disallowed[7].

We believe that all cash variation margin that has been received is a source of funding for the bank. While it is appropriate to discount collateral that has not been received due to settlement timing or a dispute, ignoring the remaining cash balance received from the same counterparty could lead to extreme results. For example, a one dollar collateral shortfall could invalidate $3 billion in cash collateral that a bank would use to fund the receivable. This “all or nothing” criteria will potentially drive huge day-over-day swings in the derivatives NSFR requirement and increases costs.

Moreover, ignoring collateral received purely based on the fact that it is posted on a weekly basis as opposed to a daily basis does not make sense from a funding perspective in the context of a ratio designed to ensure stable funding over a one-year time horizon.

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[5] Variation margin may only be viewed as a form of pre-settlement payment if a number of conditions are met including: “Variation margin exchanged is the full amount that would be necessary to fully extinguish the mark-to-market exposure of the derivative subject to the threshold and minimum transfer amounts applicable to the counterparty. http://www.bis.org/publ/bcbs270.pdf, BCBS, Basel III leverage ratio framework and disclosure requirements, para 25(iv), page 4.

[6] http://www.bis.org/publ/bcbs270.pdf, BCBS, Basel III leverage ratio framework and disclosure requirements, para 25(ii), page 4.

[7] http://www.bis.org/publ/bcbs270.pdf, BCBS, Basel III leverage ratio framework and disclosure requirements, para 25(iii), page 4.

The industry QIS estimates that linkage to the leverage ratio netting criteria will result in an additional funding requirement of €130 billion to be allocated to derivatives portfolios across the industry.

We, therefore, believe that the treatment of variation margin should be amended so as not to disallow all collateral when there is partial collateralisation. We note that the BCBS has reopened the leverage ratio rules for consultation[8], in which it has proposed to amend the netting criteria under paragraph 25(iv) by no longer requiring the exposure be 'fully' extinguished. We understand the change is designed to allow for the recognition of variation margin received in situations where the intent is to extinguish the mark-to-market exposure (subject to thresholds and minimum transfer amounts) but a margin dispute arises, where any non-disputed margin that has been exchanged can be recognised. But we also believe that margin exchanged should be recognised in situations where the intent is to extinguish the mark-to-market exposure but operational or settlement issues prevent the full amount being transferred. We, therefore, urge BNM to amend the NSFR netting criteria to reflect the change to the BCBS text.

We also believe that collateral that is posted and calculated on a more infrequent basis than daily should be not be disallowed for the purposes of the NSFR. It is our understanding that the common market practice in Malaysia is that variation margin is posted on a weekly basis and not on a daily basis, due to infrastructure limitations. We request that BNM consider these infrastructure limitations prior to finalizing the NSFR guidelines.

Furthermore, regarding the requirement that only cash variation margin received that is in the same currency of the currency of settlement of the derivative contract is recognised, we support the interim response, as defined in the BCBS October 2014 FAQs, that the currency of settlement means any currency of settlement specified in the derivative contract, governing qualifying master netting agreement ("**MNA**") or the credit support annex ("**CSA**") to the qualifying MNA. However, we understand that the BCBS is currently considering proposing an FX haircut where the currency of the cash variation margin does not match the termination currency of the netting set (i.e. the MNA currency). We believe that no haircut should be applied in cases where the currency of the CVM does not match the termination currency of the MNA. In the event a haircut is employed in the leverage ratio framework, we do not believe it would be appropriate to import such a requirement for the purposes of cash variation netting in the NSFR.

ii. Recognition of rehypothecable high quality liquid assets (HQLAs) received

As noted above, the BCBS NSFR limits variation margin received to cash that meets the BCBS leverage ratio netting standards. In addition to recognising all cash received as eligible to reduce derivatives assets, we also believe that high quality liquid asset securities received as variation margin should also reduce a bank's derivatives assets. The BCBS NSFR prohibits a bank from reducing its derivative assets with non-cash HQLA variation margin received from a counterparty, even when the securities received have cash-like liquidity characteristics (e.g., US Treasuries). This means that Treasuries, which are treated as cash equivalents for liquidity ratio purposes, are treated as if they were illiquid assets with no funding value.
According to the industry study, an estimated additional funding requirement of €125 billion will be levied on the entire industry as a result of the lack of recognition of HQLAs.

This will likely have a disproportionate negative impact on certain types of end-users – such as mutual funds and pension funds – because many typically rely on the ability to post securities as collateral[9]. Without changes to the NSFR, the added funding requirements (and associated costs) linked with such derivative exposures collateralised with HQLAs could force end users to reduce their derivatives positions, rely on the repo market to transform their assets into cash collateral, and take on substantial new liquidity risk positions, or divest their assets for cash (to the detriment of fund performance).
Therefore, we believe that the NSFR should give funding credit for rehypothecable HQLA collateral, particularly Level 1 assets (as per the LCR), with appropriate haircuts.

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[8] http://www.bis.org/bcbs/publ/d365.pdf, BCBS, Revisions to the Basel III leverage ratio framework - consultative document.

[9] It should be noted here that as BNM does not have any final rules on margin for non-cleared derivatives, there is no clarity on whether non-cash forms of collateral for variation margin can be used.

2. The 20% RSF add-on for derivatives liabilities

The industry is particularly concerned by the 20% RSF that applies to derivatives liabilities before the netting of posted collateral or derivatives assets. The measure was not included in any BCBS NSFR consultative document prior to appearing in the final standard and hence the industry did not have an opportunity to comment on it. ISDA is uncertain how the BCBS developed this methodology and whether its impact is fully understood.

We now understand the measure – which will result in an additional industry-wide funding requirement of €340 billion to be allocated to derivatives portfolios[10] and potentially have a negative effect on markets and end users – is designed to capture contingent liquidity risks.

However, we believe that such contingent funding risks related to derivatives MTM movements are already adequately captured by the LCR – a stressed measure whose buffer is designed to be drawn down in times of stress. The NSFR is not designed as a stress-based ratio but is instead a requirement designed to ensure that banks fund their activities with sufficiently stable sources of funding.

Furthermore, we believe the size of a gross payable on a bank's balance sheet is an inappropriate indicator of a firm's market contingent funding requirements as it is not related to either:

(i) the collateral a firm is required to post to secure its derivative liabilities;
(ii) the rehypothecable cash and liquid securities collateral a firm receives from other counterparties to secure its derivative assets; or
(iii) the volatility associated with different types of derivatives.

Moreover, the derivatives industry is continuing to evolve and refine its approaches to managing contingent pledging risk from derivatives. At this time, however, there are no widely accepted methodologies or approaches to quantifying this sensitivity and banks employ a variety or in-house developed models to establish buffers against this risk.

It is also worth noting that both derivatives assets and liabilities tend to balloon in stressed conditions, and as such, although a firm's net funding requirement might not change, the use of a gross add on would require extra funding be raised – a pro-cyclical requirement.

Therefore, the industry believes the current 20% of gross derivatives liabilities cannot be reasonably evaluated or trading actions adapted without further understanding of the basis and intent of the RSF factor. We believe that it does not address some key elements of derivative pledge sensitivity and therefore cannot be practically translated into product pricing and trading actions. In particular:

(i) Gross figures do not address the fact that only collateralized trades will drive contingent funding needs;
(ii) Static NPV positions cannot reflect the sensitivity of one portfolio versus another; and
(iii) There is no temporal aspect which would justify raising long term funding against short term maturing trades.

The executive summary of the potential impact of different alternative methodologies is available in *Appendix 1 - 2nd ISDA NSFR QIS Analysis.*

Finally, as we have indicated in the *Introduction* section, we would also like to bring to your attention the recent announcement from BCBS on 6 October, 2017[11], where BCBS agreed to allow national discretion for the NSFR's treatment of derivative liabilities. Jurisdictions may lower the value of the RSF add-on for derivative liabilities up to a floor of 5%. We are supportive of this floor and would respectfully request BNM to reconsider the 20% RSF add-on in light of this announcement. We request the opportunity to provide BNM with a more detailed analysis of the 5% floor at a later date, once the analysis is complete.

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[10] As per the Industry QIS.
[11] http://www.bis.org/press/p171006.htm, BCBS, Implementation of net stable funding ratio and treatment of derivative liabilities

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We thank BNM for considering our comments and the comments of other industry stakeholders in this process. We look forward to continued dialogue on these issues going forward, and we remain at your disposal in the development of the NSFR framework. Should you have any questions, please do not hesitate to contact Mark Gheerbrant (mgheerbrant@isda.org) or Keith Noyes (knoyes@isda.org).

Yours sincerely,

For the **International Swaps and Derivatives Association, Inc.**

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NSFR – Future Funding Risk Alternatives – 2nd ISDA QIS Analysis

1. Background

ISDA and GFMA would like to present the key findings from the industry's second Net Stable Funding Ratio (NSFR) Quantitative Impact Study (QIS) on potential alternatives to the Basel Committee on Banking Supervision's (BCBS) 20% RSF AddOn for derivatives liabilities. The QIS, conducted by the Global Association of Risk Professionals (GARP), comprises data submitted by 15[1] banks to the BCBS as a part of the March 2017 monitoring exercise based on December 2016 data. The objective of this initiative is to analyse the aggregate impacts of different alternative approaches designed to account for the future funding risk of derivatives.

The industry has previously expressed concerns with the 20% RSF AddOn that applies to gross derivatives liabilities (GDLs). As stated in our 2016 industry response to the European Commission's (EC) Consultation Paper on the NSFR[2] as well as our 2016 industry response to US Agencies' NSFR proposal[3], the industry does not believe it is appropriate to include in the NSFR a requirement to capture future derivative funding risk. Such a requirement is already included in the Liquidity Coverage Ratio (LCR), and the NSFR does not include other sources of similar contingent risk. Moreover the calibration of the 20% GDL RSF AddOn approach is extreme and not sufficiently grounded.

The measure will result in an additional funding requirement of €159 billion ($167 billion) for 14 of the 15 participating banks having provided this impact data, which is estimated to correspond to an industry-wide funding requirement of €367 billion ($386 billion) to be allocated to derivatives portfolios globally[4]. This is not only unjustifiably large, but the additional requirement will need to be funded longer term, and will therefore be more expensive. These additional costs may have a significant negative impact on the liquidity of derivatives markets and the ability of end users to hedge financial risks at an acceptable cost.

As stated in our 1st NSFR QIS from May 2017, if policymakers insist on incorporating a future funding risk requirement, the industry believes the 20% GDL RSF AddOn is not an appropriate measure of a bank's contingent derivative funding risk as it is both disproportionate and risk-insensitive. The industry therefore welcomes the BCBS decision to revisit the 20% GDL RSF AddOn, and work towards a more credible alternative proposal, informed by additional data collected under the Basel III monitoring exercise.

2. Executive Summary

In its 2nd NSFR QIS, the industry has further assessed alternative approaches reflecting future funding risk from derivatives with the aim of identifying a credible approach that is:

- Non-volatile and predictable, as long term funding strategies cannot be adjusted frequently;
- Risk sensitive, adaptable to the heterogeneous portfolios of every institution and to every businesses-mix;
- Proportionate to expected funding requirement;
- Easy to implement and consistent with the existing liquidity risk framework.

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1 Bank of America, BNP Paribas, Citi, Commerzbank, Credit Agricole, Credit Suisse, Deutsche Bank, Goldman Sachs, Intesa San Paolo, JPMorgan Chase, Morgan Stanley, Natixis, Nomura, Nordea and Societe Generale

2 http://www2.isda.org/attachment/ODQ3OQ==/AFME-ISDA-IIF%20EC%20NSFR%20Response.pdf

3 http://www2.isda.org/attachment/ODY5NQ==/ISDA%20US%20NPR%20NSFR%20Response%20FINAL%20[050816].pdf

4 Based on assumption that the 14 banks having provided figures for ratio ALT.1.A represent 43% of the global banking industry.

This 2nd NSFR QIS has been performed using data from the "NSFR additional" worksheet of the BCBS Monitoring Workbook. The following table summarizes the key findings:

Approaches	Assessment	Additional funding	Industry Considerations
Basel 20% GDL RSF AddOn	• Potentially volatile • Non risk sensitive • Conservatively calibrated • Easy to implement	Additional funding requirement of €367bn across the industry.	The proposed Basel 20% GDL AddOn is disproportionate and non-risk sensitive and does not capture future derivative funding risk.
Floor based on 20% of GDL	• Moderately volatile • Floor is non risk sensitive • Acts as an effective backstop • Easy to implement	20% of GDL is equivalent to 40% of the main Basel NSFR RSF for derivatives.	Whilst non-risk sensitive, a floor based on 20% GDL acts as an effective backstop to derivatives funding requirements and is easy to implement.
Historical Look-Back Approaches	• Moderately volatile • Backward looking • Conservatively calibrated • Not difficult to implement	Additional funding requirement of €26bn to €345bn across the industry. (6%-93% smaller than 20% GDL AddOn depend. on methodology)	Any HLBA alternative approach is by definition backward looking and would need to include a forward looking component to constitute a potential alternative.
SA-CCR Single Netting Set (SNS)	• Potentially volatile • Risk sensitive • Very conservatively calibrated • Burdensome calculation currently	Additional funding requirement of €1.30tr across the industry. (equivalent to 3.55x the 20% GDL AddOn**)	SA-CCR based approaches as tested are not appropriate for calculating future funding requirements for derivatives portfolios without substantial recalibrations and modifications. They are either too volatile or extremely conservatively calibrated.
SA-CCR Absolute Value AddOn (EU Commission's approach)	• Very volatile • Inaccurately risk sensitive • Conservatively calibrated • Burdensome calculation currently	Additional funding requirement of €378bn across the industry. (similar to the 20% GDL AddOn**)	

*Based on NSFR QIS 2 results and assumption that the 14 banks building ratio ALT.1.A represent 43% of the global banking industry
**Calculated by comparing [SA-CCR + 10% of uncollateralized GDL] with 20% of GDL

Industry Recommendation

In the absence of any credible risk-sensitive alternative to the 20% GDL RSF AddOn approach, the industry supports an approach using 20% of GDL as a floor to the main derivatives Required Sable Funding calculation. Such a measure would act as a backstop to derivatives funding requirements and would be easy to implement.

All other alternatives examined thus far, based on either SA-CCR or HLBA variants, are inherently flawed in that they either (i) are conservatively calibrated, (ii) produce requirements that are disproportionate to the funding risk associated with derivatives portfolios, (iii) are highly volatile, or (iv) in the case of the HLBA, backward looking.

Finally, the industry is concerned with proposals to apply an AddOn for unmargined derivatives[5]. It is understood that such a measure is designed to account for contingent funding risk associated with future collateral or contractual cash outflows that would be generated from the activation of ratings downgrade triggers on unmargined trades. However, the calibration of such a measure based on 10% of GDL[6] would grossly overestimate the risk it is trying to capture. The industry firmly thinks that such a measure should not be retained. Consistently, a 20% GDL floor excluding unmargined derivatives could be contemplated.

[5] The data collected by the BCBS on downgrade risk in the "NSFR Additional" panel of the Monitoring Workbook significantly overstates the actual funding risk arising from unmargined trades, as the collected data reflects downgrade risks for both margined and unmargined derivatives.

[6] As proposed in the European Commission's CRR II package.

3. Analysis of the alternative approaches

a. The 20% of GDL Floor Approach

Floor definition: RSF for derivatives is equal to the maximum of:

- Derivatives RSF + 85% of Initial Margin (IM) posted on house accounts,
- 20% of GDL

The following two approaches were assessed and compared to 20% of GDL:

- BCBS Derivatives RSF + 85% of Initial Margin (IM) posted on house accounts: difference between derivatives assets (net of some cash VM received[7]) and derivatives liabilities (net of cash and non-cash VM posted) + 85% of IM posted on house trades; and

- EC Proposed Derivatives RSF + 85% of IM posted on house accounts: difference between derivatives assets (net of cash and non-cash VM received) and derivatives liabilities (net of cash and non-cash VM posted) + 85% of IM posted on house trades.

Required funding under BCBS Derivatives RSF + 85% of house IM posted is **2.50x** the 20% GDL approach and shows a relatively small standard deviation (47% of ratio value). The 20% GDL floor is therefore equivalent to **40%** of the main Basel NSFR RSF for derivatives. *(Ratio COMP.N.IR.12)*

EC Proposed Derivatives RSF + 85% of house IM posted is **1.74x** the 20% GDL approach and also shows a relatively small standard deviation (53% of ratio value). The 20% GDL floor is therefore equivalent to **57%** of the main EC NSFR RSF for derivatives. *(Ratio COMP.N.IR.13)*

b. HLBA Approaches

The industry tested three main HLBA[8] variants:

- Approach HLBA 1: calculated using the average of the annual differences in net margined derivatives assets and liabilities measured over 8 quarters;

- Approach HLBA 2: calculated using the average absolute value of the annual differences in net margined derivatives assets and liabilities measured over 8 quarters; and

- Approach HLBA 3: largest absolute net 30-day collateral flow.

Approach HLBA 1 - *(Ratio COMP.N.IR.14)*

- Required funding (considering 2016Q4 as last quarter) under approach 1 is **93% smaller** than 20% of GDL.

- Similar values, in terms of magnitude, can be observed considering 2015Q4 and 2014Q4 as for 2016Q4. It is worth noting that such an approach **could potentially lead to negative values.**

- A **very significant dispersion** was observed among participating banks' results, with standard deviations of the ratio close to **6x the ratio value.**

[7] Meeting the conditions as specified in paragraph 25 of the Basel III leverage ratio framework

[8] It is worth noting that HLBA approaches considered under this QIS have different methodologies to the HLBA approach considered by the BCBS.

Approach HLBA 2 - *(Ratio COMP.N.IR.38)*

- Required funding (considering as last quarter 2016Q4) under approach 2 is in aggregate **approximately equivalent** (only 6% smaller) to 20% of GDL.
- It is worth noting that such an approach is floored and **cannot lead to negative values**.
- The dispersion across responding banks is reasonably contained.

Approach HLBA 3 - *(Ratio COMP.N.LCR.2)*

- Required funding based on largest absolute net 30-day collateral flow is in aggregate **38% smaller** than the 20% GDL.
- The dispersion across responding banks is limited.

Industry View

The tested HLBA alternatives showed meaningful dispersion among participating bank's results. While it is possible that the calibration of the HLBA, using an appropriate confidence interval, would return a lower funding requirement than 20% of GDL, its backward-looking nature may require banks to increase funding at the same time as their derivatives book is being unwound or deleveraged. This would prevent banks from being able to manage their funding requirements on a dynamic basis. Any HLBA alternative which doesn't include a forward looking component would not be an appropriate alternative.

We think that an HLBA approach with a high confidence interval should be avoided, as it is not consistent with the milder stress scenario of the NSFR compared to the LCR (as the NSFR is not a one-year LCR). Furthermore, such a stress scenario is already funded under the LCR requirements.

c. Modified versions of SA-CCR

The industry tested two main variants based on the SA-CCR methodology:

- The **Absolute Value AddOn** (AVA) approach[9] – the absolute value of the difference between the sum of the PFE AddOns for netting sets (gross of collateral) with negative market values and the sum of the PFE AddOns for netting sets (gross of collateral) with positive market values
- The **Single Netting Set** (SNS) approach – where all individual counterparty netting sets in a given derivatives portfolio are combined into a single netting set

Both versions, which are applied to margined trades only, exclude the replacement cost (given it is already part of the NSFR calculation) and the application of the 1.4 alpha factor from the calculation (given it was to account for model risk in capital requirement calculation), and apply maturity factors calculated for netting sets not subject to a margin agreements.

The AVA approach - *(Ratio COMP.A.2A, COMP.A.4)*

- Required funding under the AVA approach for margined trades is in aggregate **8% smaller** than 20% of GDL.
- However, as required under the current EC proposals, the AVA approach is combined with a 10% GDL requirement on unmargined trades. This means the required funding for the

[9] Note this is a replication of the EC's proposed SA-CCR alternative, which solely applies to margined trades. The EC has also proposed this be combined with required funding of 10% of unmargined GDL.

combined approach is in aggregate **approximately equivalent** (just 3% higher) to 20% of GDL.

- The AVA approach is complex and the following drawbacks could be highlighted:
  - The application of SA-CCR to individual netting sets as opposed to all netting sets combined is inconsistent with the goal of assessing the potential funding need at global portfolio level, its results are not proportionate to expected funding requirement and not in line with how firm would typically margin their derivatives position i.e at the portfolio level.
  - Daily NPV moves and so respective changes in a netting set value from asset to liability would alter the estimated funding need and create instability (cf. Annex 1)
  - It could imply some extra effort for banks which have not in place such framework of calculation

The SNS approach - *(Ratio COMP.A.1A, COMP.A.3)*

- Required funding under the SNS approach for margined trades is significantly larger than the AVA approach, being equivalent to **3.44x** 20% of GDL.

- As with the AVA approach, when combined with a 10% GDL requirement on unmargined trades, the required funding is equivalent to **3.55x** 20% of GDL.

- Similarly to the AVA approach, the SNS approach results are **disproportionate compared to expected funding requirements**, potentially volatile and could imply significant implementation efforts for banks.

Instability of AVA and SNS approaches

Both sets of results from the AVA and SNS approaches exhibit a high degree of dispersion among participating banks, which suggests the impacts are heterogeneous and heavily portfolio dependent. Standard deviations for AVA and SNS approaches, excluding the 10% GDL requirement on unmargined trades, spread between 71% and 124% of the ratios values comparing them with the 20% GDL amount.

Industry View

In general, we believe that using SA-CCR – an exposure measure designed for capital purposes – is not appropriate for calculating future funding requirements for derivatives portfolios without substantial recalibration and modifications, as well as an observation period given it is a new measure whose impact is not well-understood by industry or policy-makers in the liquidity context.

There is an inherent conservatism built into the approach: the potential future exposure (PFE) AddOns are calculated at a counterparty level, no netting occurs across counterparties. And within a netting set, SA-CCR only allows limited netting between derivatives positions, in that it prevents netting across asset classes and within the main asset classes (FX pairs, interest rates curves), and includes only limited netting within other asset classes (equities, commodities, credit). These are inappropriate for liquidity purposes.

In addition, the AVA approach applied to margined portfolios, while delivering lower results than the 20% GDL approach, does not represent a sufficient improvement in risk-sensitivity, stability or calibration, and seems inappropriate as a future funding risk measure. Furthermore, the approach could be highly volatile as it is based on the NPV of individual portfolios, which can vary significantly (see Annex 1).

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Annex 1 – The volatile nature of the AVA approach

Example:

- Day 1: a firm has a $1bn notional long interest rate swap with a third party, where the net present value (NPV) is +$1m and the PFE is $2m.

- Day 2: as a result of a sharp rate movement, the NPV has swung to -$1m, while the PFE has remained $2m.

- As the trade moves from a positive NPV to a negative NPV, the PFE gets categorized in the liability category as compared to earlier being included in the asset category, leading to volatility in the metric as NPVs can jump from negative to positive on a daily basis.