RESPONSE TO FEEDBACK RECEIVED

10 July 2017

Local Implementation of Basel III Liquidity Rules – Net Stable Funding Ratio ("NSFR") and NSFR Disclosure requirements

MAS

Monetary Authority of Singapore

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1 Preface

1.1 On 16 November 2016, MAS published for public consultation draft MAS Notices on a Net Stable Funding Ratio ("NSFR") and related disclosure requirements for banks in Singapore. The proposed requirements complement the existing Liquidity Coverage Ratio requirements. They seek to foster healthy medium term funding structures in banks and facilitate market discipline through meaningful disclosures by banks.

1.2 MAS would like to thank all 11 respondents for their feedback. Respondents broadly agreed with MAS' proposals on the scope of application, currency type, areas pertaining to national discretion, reporting requirements and implementation timeline. There were some areas which respondents requested for greater clarity or made alternative suggestions. MAS has highlighted these comments, together with our responses, in this document. The list of respondents and the feedback which respondents agreed to publish are appended in Annexes A and B respectively.

1.3 The finalised MAS Notice 652 on the NSFR is published today. The Notice can be found at this weblink: http://www.mas.gov.sg/Regulations-and-Financial-Stability/Regulations-Guidance-and-Licensing/Commercial-Banks/Notices/2017/MAS-Notice-652-Net-Stable-Funding-Ratio.aspx. MAS Notice 653 on the NSFR disclosure requirements is undergoing further consultation as part of the public consultation on Proposed Amendments to Disclosure Requirements under MAS Notice 637, 651 and 653, which can be found at this weblink: http://www.mas.gov.sg/News-and-Publications/Consultation-Paper/2017/Consultation-Paper-on-the-Proposed-Amendments-to-Disclosure-Requirements.aspx. The finalised MAS Notice 653 will be published after the public consultation is completed.

1.4 MAS will continue to monitor international developments on the Basel NSFR standard and analyse relevant Singapore bank data to facilitate appropriate adjustments to the NSFR requirements should the need arise.

2 Areas for National Discretion – Assets encumbered for exceptional central bank liquidity operations

2.1 Most respondents supported the proposal for assets encumbered under exceptional central bank liquidity operations to be treated as though they were unencumbered when applying the Required Stable Funding ("RSF") factors. In addition, some banks sought clarification on the definition of exceptional central bank liquidity operations.

MAS' Response

2.2 The definition of exceptional central bank liquidity operations is detailed in footnote 16 of MAS Notice 652, i.e. exceptional central bank liquidity operations are non-standard, temporary operations conducted by the central bank in order to achieve its mandate in a period of market-wide financial stress and/or exceptional macroeconomic challenges. Given the nature of such operations, banks will be informed by MAS when these operations occur so that they can apply the appropriate RSF factors for their NSFR computation.

3 Areas for National Discretion – Derivative transactions with central banks arising from short-term monetary policy and liquidity operations.

3.1 All respondents supported the proposal to exclude from their NSFR computation derivative transactions with central banks arising from the latter's short term monetary policy and liquidity operations. In addition, some banks wanted to clarify if such derivative transactions included derivatives other than foreign exchange swaps, and whether the prescribed maturity of less than 6 months referred to inception or residual maturity.

MAS' Response

3.2 All derivative transactions, including but not limited to foreign exchange swaps, related to central banks' short term monetary policy and liquidity operations, may be excluded from banks' NSFR computation. Only transactions with a 6 month or less maturity at inception will qualify for exclusion from banks' NSFR computation.

4 Areas for National Discretion – Interdependent assets and liabilities

4.1 All respondents supported the proposal to allow for 0% RSF and 0% Available Stable Funding ("ASF") factors to be applied on interdependent assets and liabilities. In addition, some respondents requested for examples of interdependent assets and

liabilities, citing potential qualifying transactions such as inter-company funding; export financing; derivatives hedges/initial margin; clearing of client trades; segregation and custody of customer assets; and facilitation of client and firm short transactions.

MAS' Response

4.2 The above transactions will be considered as interdependent assets and liabilities so long as all the criteria listed in paragraph 41 of MAS Notice 652 are met. Banks are expected to put in place an internal independent verification process to ensure the eligibility of transactions classified as interdependent assets and liabilities in their NSFR computation.

5 Areas for National Discretion – Off-balance sheet ("OBS") exposures

5.1 There were mixed views on the appropriate calibration of RSF factors for OBS exposures. While some respondents supported the proposed RSF factors for off-balance sheet facilities, there were also respondents that suggested a 0% RSF factor for unconditionally revocable credit and liquidity facilities, trade finance-related obligations, guarantees and letters of credit unrelated to trade finance obligations and other non-contractual obligations. Reasons cited by respondents supporting a 0% RSF included the ability of banks to revoke such facilities without restraint and the short-term nature of these facilities.

MAS' Response

5.2 MAS acknowledges respondents' feedback and notes that there are valid circumstances for which a 0% RSF is appropriate for certain OBS exposures. As noted in our consultation paper, additional data is needed to properly calibrate the appropriate RSF factors for these OBS exposures. MAS will work with banks in Singapore to collect the relevant data to better inform the calibration of RSF factors of various OBS exposures. In the interim, and in view of the low impact of the earlier proposed RSF factors, MAS will set the RSF factors at 0%.

5.3 In line with sound liquidity risk management practices, banks are expected to continue to account for bank-specific circumstances and provide for adequate funding of their OBS exposures where appropriate. In particular, banks should continue to ensure that OBS exposures that could lead to significant liquidity drains over a longer time horizon will be adequately identified and managed.

6 Treatment of derivative liabilities

6.1 Some respondents proposed that MAS adopts similar requirements as proposed by the European Union ("EU") in their NSFR consultation paper. These EU requirements include allowing level 1 HQLA collateral that are received as variation margin to reduce negative replacement cost, as compared to cash collateral only as per Basel standards, as well as applying a revised add on of 10% and 20% RSF on gross un-margined and gross margined derivative liabilities respectively, or using the Standard Approach for Counterparty Credit Risk – Potential Future Exposure approach to compute the appropriate add-on.

MAS' Response

6.2 MAS supports a consistent adoption of the Basel NSFR standard and will maintain the consulted RSF treatment for derivative liabilities in MAS Notice 652. We will however continue to monitor international developments and adjust our requirements as appropriate.

MONETARY AUTHORITY OF SINGAPORE

10 July 2017

Annex A

LIST OF RESPONDENTS TO THE CONSULTATION PAPER ON THE LOCAL IMPLEMENTATION OF BASEL III LIQUIDITY RULES – NET STABLE FUNDING RATIO ("NSFR")

1. Standard Chartered Bank (Singapore) Limited, who requested for confidentiality of submission
2. Malayan Banking Berhad, Singapore Branch, who requested for confidentiality of submission
3. International Swaps and Derivatives Association, Inc. (ISDA)
4. Asia Securities Industry and Financial Markets Association (ASIFMA)
5. Respondent A who requested for confidentiality of identity
6. Respondent B who requested for confidentiality of identity
7. Respondent C who requested for confidentiality of identity
8. Respondent D who requested for confidentiality of identity and submission
9. Respondent E who requested for confidentiality of identity and submission
10. Respondent F who requested for confidentiality of identity and submission
11. Respondent G who requested for confidentiality of identity and submission

Annex B

SUBMISSIONS FROM RESPONDENTS TO THE CONSULTATION PAPER ON THE LOCAL IMPLEMENTATION OF BASEL III LIQUIDITY RULES – NET STABLE FUNDING RATIO ("NSFR")

S/N	Respondent	Full responses from respondent
1	ISDA	The International Swaps and Derivatives Association, Inc. ("ISDA")[1] is grateful for the opportunity to respond to the Consultation Paper on Local Implementation of Basel III Liquidity Rules – Net Stable Funding Ratio ("NSFR") and NSFR Disclosure published by the Monetary Authority of Singapore ("MAS") on 16 November, 2016. 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 the MAS is completing in this area, and for the opportunity to respond to the questions posed in the proposed rulemaking. We would note that we are undertaking further quantitative work on the impact of the NSFR on derivatives activities, which we expect to be able to share shortly. 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 the MAS to discuss the analysis it conducted in connection with a final rulemaking with BCBS members

[1] Since 1985, ISDA has worked to make the global over-the-counter (OTC) derivatives markets safer and more efficient. Today, Today, ISDA has over 850 member institutions from 67 countries. These members comprise of a broad range of derivatives market participants, including corporations, investment managers, government and supranational entities, insurance companies, energy and commodities firms, and international and regional banks. In addition to market participants, members also include key components of the derivatives market infrastructure, such as exchanges, intermediaries, clearing houses and repositories, as well as law firms, accounting firms and other service providers. Information about ISDA and its activities is available on the Association's web site: www.isda.org.

		with a view to addressing these concerns on a global basis. Whilst the Basel Committee 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 the MAS 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. In particular, we respectfully request that the treatment of derivatives under the NSFR needs to be reconsidered. In particular, 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") for derivatives liabilities. Without modification, these two components, according to a quantitative impact study ("QIS") conducted by the industry[2], will result in: • An estimated additional funding requirement allocation of €767 billion (SG$1.16 trillion)[3] for the entire industry (extrapolated from a €345 billion (SG$521 billion) requirement across 12 banks[4]) – this is approximately 10 times larger than the total amount of actual funding required; • A resulting additional annual cost (based on a long term funding cost of between 150-200bps) of between €12-€15 billion (SG$18-$22 billion)[5] ISDA believes that these key areas should be carefully considered by the MAS in its rulemaking process. We believe that unless the rules are revised, the current requirements could severely impact the availability and

[2] Industry Analysis of the 2015 QIS on the Net Stable Funding Ratio for Derivatives. The analysis was based on the July 2015 submissions of 12 GSIBS and internationally active banks.

[3] Using a Euro- Singapore Dollar conversion rate of 1.51.

[4] Estimate based on assumption that survey participants represent 45% of total market impact.

[5] An updated version of the study will be submitted to the MAS at a later stage.

		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 the MAS, as a member of the BCBS, to take the changes that result from the MAS' final analysis back to the Basel Committee to obtain the necessary revisions of the Basel NSFR 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. 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. **A. 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, including those expected in Singapore. As described below, we believe that there are three narrowly tailored accommodations that should be adopted by the MAS to better capture the funding value of margin received by banks: (i) recognising the full value of all cash variation margin received; (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; and (iii) reflecting the value of re-useable initial margin in the NSFR, where banks are able to use such margin as a funding source for derivatives positions. **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[6])

[6] According to Article 25(iv) of the Basel Leverage Ratio Framework, 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

		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[7]. 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[8]. 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. The industry QIS estimates that linkage to the leverage ratio netting criteria will result in an additional funding requirement of €130 billion (SG$196 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

the derivative subject to the threshold and minimum transfer amounts applicable to the counterparty. http://www.bis.org/publ/bcbs270.pdf.

[7] Article 25(ii) of the Basel Leverage Ratio Framework.

[8] Article 25(iii) of the Basel Leverage Ratio Framework.

		that the Basel Committee has reopened the leverage ratio rules for consultation[9], 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 the MAS to amend the NSFR netting criteria to reflect the change to the Basel 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. 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.

[9] http://www.bis.org/bcbs/publ/d365.pdf.

		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 (SG$189 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[10]. 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. **iii. Recognition of rehypothecable initial margin received**

[10] This was recognised by the MAS in its proposed rulemaking on margin for non-cleared derivatives, which allows the use of non-cash forms of collateral for variation margin.

		Apart from variation margin netting, the BCBS NSFR also fails to consider the funding value of initial margin received by banks. The BCBS NSFR assigns no ASF value to rehypothecable initial margin received from counterparties, even when such initial margin can be used as an actual funding source by a bank under applicable regulations. We agree, in principle, that when considered in isolation initial margin is not a stable funding source for a bank's entire balance sheet; however, the relevant question is whether it is an appropriately matched funding source for assets held by the bank as derivatives hedges that are, in reality, actually funded by the initial margin, and which will be sold by the bank when the derivative position closes out. One weakness of the BCBS NSFR is that it assumes that all assets require long-term funding, whereas in reality the funding requirements for a particular asset depend on the purpose for which the bank holds the asset. Clearly, assets held by the bank for long-term investment require long-dated funding support; similarly, market-making positions in less liquid securities also present funding risk. When securities are held as market risk on derivatives hedges, however, the funding requirements of such assets depend on the underlying derivative. Derivatives hedges supporting a one-month swap require one month of stable funding, as they will be liquidated at the termination of the swap; hedges supporting a one-year swap require one year of funding. When available for reuse by a bank, initial margin is uniquely well-suited to match funding sources with funding requirements. The bank receives the initial margin at the outset of the derivative transaction, which corresponds with the need to purchase the hedge security, thus matching the start of the funding requirement with the start of the available funding. **B. 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 (SG$513 billion) to be allocated to derivatives portfolios [11] 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-

[11] As per the Industry QIS.

		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. We, therefore, believe it would be more sensible to explore the possibility of adopting a measure that is more sensitive to future funding risk. However, given the tight timeline to respond to the consultation we have been unable in the time given to sufficiently consider and perform a thorough analysis of the potential impact of different alternative methodologies. We, therefore, will continue to consider alternatives to the 20% RSF over the coming months and commit to provide the MAS with commentary and analysis on suitable alternatives that we will also share with the BCBS and regulators outside of Singapore to ensure global harmonization. Given the 20% RSF measure has never been fully assessed and impact tested, nor have any alternatives been adequately evaluated, we believe it is crucial that the MAS defer the adoption of a measure until they has been able to fully assess and observe the potential impacts of different

		alternatives. To this end we believe that the MAS should re-propose this aspect of the proposed ruleset. We believe the MAS should consider in their analysis methodologies including, but not limited to, the below. However, we reiterate that the industry has not had sufficient time to explore the suitability of the below methodologies, and we aim provide additional considerations and analysis as to their appropriateness over the coming months. Use of the standardised approach to counterparty credit risk (SA-CCR): Using SA-CCR in either of its current forms (for risk-based capital, or as modified for leverage), would not be appropriate, as it is a measure of Potential Future Exposure (PFE) used for credit risk purposes, and not a measure of contingent funding risk. ISDA is willing to explore further whether a modified version would be suitable. Further analysis is required and should thoroughly assess whether the different elements of the SA-CCR framework are appropriate for calculating future funding risk. For example, the 1.4x multiplier is meant to take into account model risk and potentially high correlations of exposures across counterparties – this would be inconsistent with the basic underlying principle of calculating contingent funding risk. Also, the measure does not permit collateral inflows from one counterparty to fund collateral outflows to another. We believe an approach based on SA-CCR would need very careful consideration and further analysis given its potential complexity. • Use of a historic look-back approach (HLBA): Using the HLBA approach as detailed in the LCR in its current form would not be suitable, as such a measure is a stressed outflow for a one month horizon, defined as the largest absolute collateral flow observed on 30 consecutive days. Moreover, a HLBA should not be based on the largest absolute collateral flow. We would also caution that an inherent flaw in any HLBA approach is that it is backward-looking and restricts the ability of banks to actively manage their funding profiles on a reactive basis.

		• 20% Floor: This simple measure would require readjusting the 20% RSF on derivatives liabilities to be applied as a floor. Under the floor approach the total derivatives RSF requirement would be the larger of the 20% of liabilities versus the receivable and IM RSF requirements. The floor would ensure a minimum amount of RSF for derivatives should the base derivatives requirement result in no funding requirement. We also believe that under any such measure, settlement payments should not be grossed up. Settlement payments extinguish all or part of exposures to counterparties should not be disincentivised. Moreover, this requirement was not included in the final Basel NSFR text. **C. Derivatives transactions with central banks arising from short-term monetary policy and liquidity operations** Under the BCBS NFSR FAQs (July 2016), FAQ 33 clarifies the scope of derivative transactions arising from central banks' short-term monetary policy and liquidity operations, which the MAS has also adopted. The industry supports this exemption, however would welcome clarification from the MAS that the application not limited to only FX instruments, but applies to all derivatives (regardless of asset class) that meet the criteria. We also believe that the guideline should be amended so that contracts that have a "residual maturity" of less than 6 months, rather than a six month maturity "at inception", will qualify for the waiver. This would be consistent with the interpretation adopted in other jurisdictions. We thank the MAS 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.
2	ASIFMA	The Asia Securities Industry and Financial Markets Association (ASIFMA) [12] and its members support the

[12] ASIFMA is an independent, regional trade association with over 80 member firms comprising a diverse range of leading financial institutions from both the buy and sell side, including banks, asset managers, law

		underlying policy goals of the Net Stable Funding Ratio (NSFR), including its core objective of requiring banks to develop and maintain sustainable funding structures. So we appreciate the Monetary Authority of Singapore's (MAS) efforts to ensure that its draft guidelines are consistent with the Basel Committee on Banking Supervision's (BCBS) final standard, and welcome the opportunity to respond to the MAS's "Consultation Paper on Local Implementation of Basel III Liquidity Rules -- Net Stable Funding Ratio and NSFR Disclosure" (Consultation Paper). We support the MAS's proposals for its domestic implementation of the NSFR. As the MAS considers how to implement this global standard in Singapore, we encourage it to examine the impact of the final NSFR on Singapore's economy and, as one of Asia's financial centres, on Asia's economic development. Notwithstanding our support for the MAS's proposal and, more broadly, the NSFR's underlying goals, we have general concerns about the BCBS's standard and its treatment of repo and interlinked transactions. These elements of the proposed NSFR stand to reduce capital market activity and increase costs for end-users and investors[13]. ASIFMA, through its umbrella organisation -- the Global Financial Markets Association (GFMA), has conveyed to the BCBS its reservations on the NSFR standard and its impact on capital markets. In responses to European Commission and US agency consultations on local implementation of NSFR submitted in the summer of 2016, we and our trade

firms and market infrastructure service providers. Together, we harness the shared interests of the financial industry to promote the development of liquid, deep and broad capital markets in Asia. ASIFMA advocates stable, innovative, competitive and efficient Asian capital markets that are necessary to support the region's economic growth. We drive consensus, advocate solutions and effect change around key issues through the collective strength and clarity of one industry voice. Our many initiatives include consultations with regulators and exchanges, development of uniform industry standards, advocacy for enhanced markets through policy papers, and lowering the cost of doing business in the region. Through the GFMA alliance with SIFMA in the United States and AFME in Europe, ASIFMA also provides insights on global best practices and standards to benefit the region.

[13] Oliver Wyman study, "Impact of NSFR on capital markets," January 2015.

		association partners (the Association of Financial Markets in Europe [AFME] [14] and the Securities Industry and Financial Markets Association [SIFMA] [15] in the United States as well as the GFMA) have highlighted how the NSFR raises costs for end-users, and reduces liquidity in financial markets. Those effects will likely be amplified in Asia's developing financial markets. Any evaluation of NSFR's impact must consider how banks allocate regulatory capital, funding and liquidity costs internally, as required by BCBS standards. Although exact practices vary by institution, as a general principle banks evaluate internal business units' profitability against all applicable prudential standards. If capital markets activities in Asia are subject to unrealistic NSFR treatments, every business line within an Asian capital markets franchise – whether at a traditional investment bank or a more retail focused institution – will be evaluated against the implied regulatory funding costs of operating those businesses. In addition, banks operating globally are especially cognisant of the need to be rigorous about allocating and minimising costs – limiting the ability of even an NSFR-surplus bank to subsidise the funding costs of a capital markets franchise with, for example, retail division Available Stable Funding (ASF) surpluses. While end-users may or may not be able and willing to absorb incremental cost increases in capital markets services – which cannot be the prudential objective of the NSFR – we believe the larger effect on financial markets will be lower activity and greater volatility. This is an especially pressing concern for developing markets in the Asia-Pacific,

[14] Association of Financial Markets in Europe, International Swaps and Derivatives Association and Institute of International Finance, Response to European Commission consultation paper "On Further Considerations for the Implementation of the NSFR in the EU," https://www2.isda.org/attachment/ODQ3OQ==/AFME-ISDA-IIF%20EC%20NSFR%20Response.pdf.

[15] The Clearing House Association, the Securities Industry and Financial Markets Association, the Financial Services Roundtable, the American Bankers Association, the Institute of International Bankers and the CRE Finance Council, Response to Multiple Agencies' "Notice of Proposed Rulemaking – Net Stable Funding Ratio: Liquidity Risk Measurement Standards and Disclosure Requirements," http://www.sifma.org/comment-letters/2016/sifma-and-other-associations-submit-comments-to-multipleagencies-on-net-stable-funding-ratio/.

		which are less deep and less liquid, than those in the US or Europe. Notwithstanding these broader concerns with the global NSFR standard, ASIFMA supports the MAS's approach but would appreciate further clarity around the scope of its proposal. We would also like to highlight ways we believe the treatment of repurchase agreements and interdependent assets and liabilities could reduce the impact of the NSFR on Singapore's capital markets. **Scope and application** We support the MAS's approach in applying the NSFR only to domestic systemically important banks (DSIBs). We also welcome proposed lower NSFR requirements for D-SIBs whose groups are not headquartered in Singapore to take into consideration the fact that funding is generally managed at group level. However, we seek clarity on Article 4.4 regarding the circumstances under which "MAS could, on a case by case basis, increase the all-currency NSFR requirement of these banks." **Treatment of repurchase agreements** ASIFMA recommends that further consideration be given to the ASF and Required Stable Funding (RSF) factors assigned to repurchase agreement (or "repo") transactions under the proposed framework. Repo transactions play a vital role in the financial system and underpin the functioning of primary and secondary capital markets as well as short-term money markets. The development of a "classic" repo market is an important step for deepening financial markets in Asia. Deep, liquid repo markets encourage the establishment of a benchmark yield curve – an important step for price certainty and transparency in the capital markets. They foster the proliferation of more experienced broker-dealers and market makers, and stimulate the development of hedging tools, which contribute to better risk management. Indeed, the MAS recognised the importance of deep, liquid repo markets when it launched the Securities Repo Facility in 2015. In a 17 November speech at the ASIFMA Annual

		Conference in Singapore, MAS Deputy Managing Director Jacqueline Loh said: the "[MAS is] also engaging investors, issuers and intermediaries to assess if more can be done to facilitate an active repo market and whether this will help deepen liquidity in bond markets.[16]" However, the adoption of the current NSFR proposal based on the BCBS standard could therefore run counter to the MAS's goal of developing a deeper, more liquid bond market in Singapore, as well as deeper markets throughout Asia. Small asymmetries in ASF and RSF factors (e.g. 10-15%)[17], as specified in the MAS's consultation, would raise costs for what is already a high-volume, low-margin business that is already shrinking due to the impact of the leverage ratio, and may be contributing to a decline in market liquidity[18]. We understand that the asymmetry between the ASF and RSF factors is designed to penalise bank interaction with the unregulated financial sector, including hedge funds. However, we note that the BCBS has provided no evidence or guidance as to what the right amount of interaction may be, or how the proposed asymmetry in the NSFR would achieve it. The proposed treatments under the NSFR are therefore particularly disproportionate and at risk of unintended consequences.[19] The European Commission (EC) is already taking steps to reduce the impact NSFR stands to have through the repo market on Europe's economic growth and reduce the unintended consequences on end-users. On 23 November, it published legislative proposals revising its Capital

[16] Jacqueline Loh, Deputy Managing Director, Monetary Authority of Singapore. "Strengthening Asia's Bond Markets," speech delivered 17 November at the Asia Securities Industry & Financial Markets Association's Annual Conference.

[17] For more information, please refer to page 13 in the International Capital Market Association, "Impact of the Net Stable Funding Ratio on Repo and Collateral Markets," March 2016, http://www.icmagroup.org/assets/documents/Regulatory/Repo/ERCC-NSFR-230316.pdf.

[18] Global Financial Markets Association and International Institute of Finance, Response to IOSCO's Public Comment on Examination of Liquidity of the Secondary Corporate Bond Markets, October 2016.

[19] International Capital Market Association, "Impact of the Net Stable Funding Ratio on Repo and Collateral Markets," March 2016.

		Requirements Regulation and Directive (CRR/CRD IV)[20]. The NSFR is a key component of that legislative package. The EC proposed, for example, to set a 0% RSF on Level 1 high-quality liquid assets (HQLA), versus 5% under the BCBS standards. This treatment is consistent with the treatment of those assets under the existing Liquidity Coverage Ratio. The EC further proposed reducing the RSF of secured lending below what was proposed in the BCBS standard; in the EC's legislative proposal, the RSF on secured lending is 5% on Level 1 HQLA – versus 10% in the BCBS standard – and 10% on level 2A HQLA – versus 15% -- to preserve market efficiency given the central role of secured lending in the financial system. We appreciate the EC's approach, but remain concerned that its changes are not sufficient in mitigating the NSFR's impact on the repo market. As an alternative to the current Basel Committee approach, ASIFMA urges global regulators to consider a similar approach to Level 1 HQLA to minimise the effects of implementing NSFR on government bond markets – particularly less-liquid markets in Asia – and less-developed repo markets. ASIFMA suggests that the asymmetry between ASF and RSF factors be eliminated, or re-proposed with analysis that supports how it might achieve the intended outcome. Another, less desirable, option would be to apply the asymmetry of ASF and RSF factors for repo transactions only to agreements with non-regulated financial entities. **<u>Interdependent assets and liabilities</u>** We appreciate that the MAS allows banks to allocate 0% RSF and 0% ASF when transactions meet all criteria for interdependent items. Without exempting specific capital markets activities, several aspects of the global NSFR framework will severely restrict banks' ability to facilitate client financing, investing and hedging – and thereby hinder capital markets' development and their ability to support economic growth.

[20] European Commission, Proposals to amend rules on capital requirement, 23 November 2016, http://ec.europa.eu/finance/bank/regcapital/crr-crd-review/index_en.htm.

		The NSFR framework requires banks to use long-term funding for transactions that are already well-funded and short-term in nature, which would materially increase transaction costs without necessarily improving liquidity risk management. A range of interdependent transactions or pass-through facilitation trades would need to be funded -- often on long-term basis, materially increasing the cost of such transactions. These higher costs are likely to be passed on to investors and end-users. ASIFMA proposes specific treatment for certain activities, including: • Inter-company funding; • Export financing; • Derivatives hedges/initial margin; • Clearing of client trades; • Segregation and custody of customer assets; and • Facilitation of client and firm short transactions. These transactions support hedging, clearing and trading by long-term investors – activities that support the real economy. Globally, we have urged regulators to apply a neutral funding treatment to these capital markets activities so that banks are able to maintain market liquidity and continue offering clients efficient, tight pricing. This neutral treatment would help mitigate some of the adverse impacts of the NSFR standard while strengthening liquidity risk management among banks in Singapore. We welcome the opportunity for continued engagement with the Monetary Authority of Singapore as it considers this important regulation.
3	Respondent A	**General comments:** We appreciate the Authority's initiation of the consultation paper for NSFR in 2016, allowing banks to provide feedback on proposed MAS 652 that will come into effect on 1-Jan-2018. Overall, we are in agreement with MAS' proposal, and would like to provide a few suggestions for MAS' consideration (see replies below).

		Separately, we also have a few clarifications: 1) BCBS provides more guidelines on the interpretation of NSFR rules within the QIS documents, and in a separate FAQ. Do all these interpretation guidelines apply to MAS' NSFR as well? 2) In BCBS' QIS, the capital numbers are computed based on fully transitioned 2022 rules. Does the same apply to MAS' NSFR? 3) Some items in the "Definitions" section of MAS 652 such as "non-performing loans" and "regulatory capital" have been defined more extensively in MAS 637. May we assume that the definitions are the same as MAS 637? **Question 1: MAS seeks comments on the proposed scope of application for both the NSFR standard and NSFR disclosure requirements.** We agree with MAS' proposal to implement the NSFR standard and NSFR disclosure at the same level as MAS Notice 649 on LCR. The consistency in scope of application allows for effective understanding of each institution's liquidity position across the short term and long term measures. **Question 2. MAS seeks comments on the proposal to impose NSFR on an all currency basis only.** We agree that NSFR on an all currency basis only is sufficient. We are of the view that currency-level NSFR has limited benefit and will introduce unnecessary complexity to the implementation of NSFR. **Question 3. MAS seeks comments on the proposed minimum NSFR requirements for the different classes of banks.** We understand MAS' considerations that D-SIBs that are not headquartered in Singapore have been required to comply with 50% all-currency NSFR requirement at the consolidated Group level. However, we have concerns that this creates an un-level playing field for D-SIBs in Singapore, and the rule differs from that of foreign regulators. Locally incorporated D-SIB headquartered in Singapore have subsidiaries and branches that operate in foreign

		jurisdictions. Based on the consultation NSFR rules released so far, we understand that Hong Kong, India, Indonesia and Taiwan require foreign subsidiaries and/or branches to comply with NSFR in full. MAS may wish to reconsider its requirements in view of that from foreign regulators. **Question 4. MAS seeks comments on the proposal to apply the same RSF factor for unencumbered assets on the assets encumbered under exceptional central bank liquidity operations.** We appreciate MAS' consideration that NSFR should remain neutral despite exceptional central bank liquidity operations. To ensure all banks follow a consistent interpretation, we suggest that MAS provides further guidance on the circumstances and process in which "exceptional central bank liquidity operations" rule may be applied. It would be helpful if MAS can also provide a list of Facilities [e.g. US Federal Reserves' Term Auction Facility (TAF), Reserve Bank of Australia's Committed Liquidity Facility (CLF)] that may be recognized for central bank liquidity operations. **Question 5. MAS seeks comments on the proposal to allow banks to exclude such derivatives transactions from NSFR computation.** MAS' proposal preserves NSFR neutrality regardless of central bank policy and liquidity operations. However, we foresee that this imposes significant implementation challenges, particularly in identifying the qualifying transactions. It would simplify the identification process if MAS would allow all derivative transactions with central banks to be excluded, rather than those "arising from short term monetary policy and liquidity operations". Otherwise, we appreciate several clarifications: a) Does this apply on all foreign exchange swaps with central banks that have a maturity of less than six months at inception, or only on specific transactions identified to be related to central bank monetary policy and liquidity operations? b) For computing NSFR on a consolidated Group level, are such operations limited to MAS's actions only or also on any

		transaction conducted by foreign branches/subsidiaries with their local central bank? If applicable to foreign central banks' operations, should its identification be specified by that central bank or by MAS? **Question 6. MAS seeks comments on the proposal to allow banks to allocate 0% RSF and 0% ASF if they can demonstrate that the transactions meet all the listed criteria for interdependent items.** We appreciate MAS' election to utilize this national discretion. To provide more clarity, we suggest that MAS publish generic examples of accepted "interdependent assets and liabilities" (e.g. margins posted by clients to support client clearing at CCPs). **Question 7. MAS seeks comments on the proposed RSF factors for the various OBS exposures. MAS will review the appropriateness of these RSF factors, drawing from banks' annual data input on the percentage drawdown of such exposures.** Imposing a RSF factor on OBS exposures implies that the bank needs to pre-emptively raise or maintain stable funding for meeting potential funding needs. We are of the view that this may not be necessary from a risk perspective for the following reasons: a) Such OBS exposures are either (i) unconditionally revocable uncommitted facilities where the bank may revoke the obligation, or (ii) exposures contingent on a default event occurring. Hence, actual exposure requiring the bank to pre-fund is expected to be low. b) In the event of such obligations materializing, the bank can meet immediate funding needs via the short term wholesale borrowing market (under the business-as-usual conditions of the NSFR measure). Once the obligation is drawn, its funding impact will be duly captured in the NSFR as an on-balance sheet exposure. Setting aside stable funding at all time to cater to potential OBS draw down is expensive and not reflective of normal business practices. We recommend that no RSF factor be attached to the various OBS exposure.

		Question 8. MAS seeks comments on the proposed frequency of NSFR regulatory reporting and disclosure. We agree with the proposed frequency of reporting. At least for a transitional period, we suggest that MAS allow for some flexibility in the reporting frequency and submission timeline to be approved on a case by case basis. **Question 9. MAS seeks comments on the proposed retention period for NSFR disclosure information.** We agree with the proposed retention period. **Question 10. MAS seeks comments on the proposed reporting currency for NSFR regulatory reporting and disclosure.** We agree with the proposed reporting currency. **Question 11. MAS seeks comments on the proposed implementation timeline for both the NSFR standard and NSFR disclosure requirements.** We agree with the proposed implementation timeline. As with question 8, we suggest that MAS allow for some flexibility to be approved on a case by case basis.
4	Respondent B	**General comments:** We are pleased to provide the following general feedback and interpretation on the Consultation paper which was shared on 16th November 2016. We would welcome any further guidance that the MAS can give, particularly if our interpretations are not acceptable. **Question 1. MAS seeks comments on the proposed scope of application for both the NSFR standard and NSFR disclosure requirements.** We agree with the proposed scope of application and note the exclusion on non-banking entities. **Question 2. MAS seeks comments on the proposal to impose NSFR on an all currency basis only.**

		We agree with the proposal. NSFR is meant to represent the long term structural liquidity position of the Bank under a business as usual narrative. To require reporting or compliance by currency would ignore FX and FX swap markets over a very long term. **Question 3. MAS seeks comments on the proposed minimum NSFR requirements for the different classes of banks.** We agree with the proposal. **Question 4. MAS seeks comments on the proposal to apply the same RSF factor for unencumbered assets on the assets encumbered under exceptional central bank liquidity operations.** We agree with the proposal. **Question 5. MAS seeks comments on the proposal to allow banks to exclude such derivatives transactions from NSFR computation.** We agree with the proposal. **Question 6. MAS seeks comments on the proposal to allow banks to allocate 0% RSF and 0% ASF if they can demonstrate that the transactions meet all the listed criteria for interdependent items.** We agree with the proposal. **Question 7. MAS seeks comments on the proposed RSF factors for the various OBS exposures. MAS will review the appropriateness of these RSF factors, drawing from banks' annual data input on the percentage drawdown of such exposures.** We agree with the proposal. **Question 8. MAS seeks comments on the proposed frequency of NSFR regulatory reporting and disclosure.**

<table>
<tr><td></td><td></td><td>We agree that the structural nature of NSFR means that calculating, reporting or complying more frequently than monthly would add little value.

Question 9. MAS seeks comments on the proposed retention period for NSFR disclosure information.

We agree with the proposal.

Question 10. MAS seeks comments on the proposed reporting currency for NSFR regulatory reporting and disclosure.

We agree with the proposal.</td></tr>
<tr><td>5</td><td>Respondent C</td><td>General comments:

We will like to propose propose/highlight the following items relating to the treatment of derivatives for MAS's consideration:

1) Treatment of cash variation margin received

The proposed NSFR guidelines allow only cash collateral (posted as variation margin) which fulfils Leverage ratio netting criteria under MAS 637 to offset against derivative assets. The netting guidelines for Leverage ratio are exposure-based and may not reflect the underlying funding risk; the cash variation margin received may not fulfil all netting criteria of MAS 637 (i.e. if the variation margin is not calculated and exchanged on daily basis) but that does not diminish the funding value of the collateral to zero. This requirement may be too stringent and could result in a large portion of cash collaterals received not being recognised. Therefore, we proposes that all cash variation margin (without applying the Leverage ratio netting criteria) received be deemed as a source of funding and be allowed to offset against derivative assets.

2) Rehypothecable high quality liquid assets (HQLAs) received as variation margin

We believes that, in addition to cash collaterals, Level 1 high quality liquid asset securities received as variation</td></tr>
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		margin should also be allowed to reduce the derivative assets. These Level 1 liquid assets are treated as cash equivalent in LCR and can be easily liquidated (if required) into cash to provide funding. **3) Requirement to hold 20% stable funding against derivative liabilities (the following comments mirror the feedback provided by the Group to BCBS)** We understands that the NSFR is not intended to overlay additional stress to the balance sheet, beyond the stress modelled by the LCR, and that the NSFR has been constructed predominantly around the reported accounting balance sheet positions. On this basis, the totality of the funding requirement for derivatives should only be: - Any net initial margin given; - Any net un-margined derivative receivable asset (NSFR derivative assets less NSFR derivative liabilities) However, if the intention is to overlay an additional stress beyond that already captured in the LCR, we believes that the risks are: - Any adverse variation margin due to movements in markets, which is already captured under the LCR and results in the holding of HQLA - Any overall un-margined derivative liability where the risk is the tear up costs or what is commonly known as re-couponing, the result of which, in both cases, is economically equivalent to margining the derivatives, which should be captured by the LCR; - Any variation margin that has not currently been called and any surplus variation margin, residing with the institution, which is likely to be called back under stress, which is already captured under the LCR and results in the holding of HQLA. In summary, we sees no funding requirement associated with derivative liabilities which needs to be reflected in the NSFR.

		4) Variation in weightings across different regulatory guidelines We notes that the recent consultation paper issued by the European Banking Authority (EBA) has relaxed funding requirements for several notable line items where material balances are expected. For example, the EBA guidelines propose that: - Level 1 HQLA will not require any stable funding - Loans to financial customers (including interbank lending) with residual maturity less than six months will require 10% Required Stable Funding (RSF) - Trade finance on-balance sheet related products with residual maturity less than six months will require 10% RSF While the guidelines proposed by EBA are more relevant in the context of the European financial space, it is worthwhile to highlight that business in Singapore may be at a regulatory disadvantage compared to other countries (given that EBA has already taken a more lenient stance). **Question 1. MAS seeks comments on the proposed scope of application for both the NSFR standard and NSFR disclosure requirements.** Nil. We concurs with MAS's proposal. **Question 2. MAS seeks comments on the proposal to impose NSFR on an all currency basis only.** Nil. We concurs with MAS's proposal. **Question 3. MAS seeks comments on the proposed minimum NSFR requirements for the different classes of banks.** Nil. We concurs with MAS's proposal. **Question 4. MAS seeks comments on the proposal to apply the same RSF factor for unencumbered assets on the assets encumbered under exceptional central bank liquidity operations.** Nil. We concurs with MAS's proposal.

		Question 5. MAS seeks comments on the proposal to allow banks to exclude such derivatives transactions from NSFR computation. Nil. We concurs with MAS's proposal. **Question 6. MAS seeks comments on the proposal to allow banks to allocate 0% RSF and 0% ASF if they can demonstrate that the transactions meet all the listed criteria for interdependent items.** Nil. We concurs with MAS's proposal. **Question 7. MAS seeks comments on the proposed RSF factors for the various OBS exposures. MAS will review the appropriateness of these RSF factors, drawing from banks' annual data input on the percentage drawdown of such exposures.** Nil. We concurs with MAS's proposal. **Question 8. MAS seeks comments on the proposed frequency of NSFR regulatory reporting and disclosure.** Nil. We concurs with MAS's proposal. **Question 9. MAS seeks comments on the proposed retention period for NSFR disclosure information.** Nil. We concurs with MAS's proposal. **Question 10. MAS seeks comments on the proposed reporting currency for NSFR regulatory reporting and disclosure.** Nil. We concurs with MAS's proposal. **Question 11. MAS seeks comments on the proposed implementation timeline for both the NSFR standard and NSFR disclosure requirements.** Nil. We concurs with MAS's proposal.

MAS

Monetary Authority of Singapore