Consultation paper | CP 16.02

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# Net Stable Funding Ratio

HONG KONG MONETARY AUTHORITY
香港金融管理局

# Contents

# I INTRODUCTION

## 1. Background

1. In December 2010, the Basel Committee on Banking Supervision (BCBS) introduced, as part of the Basel III reform package, two liquidity standards, namely:

   - the Liquidity Coverage Ratio (LCR)[1], which seeks to promote short-term resilience in the liquidity risk profile of banks by requiring banks to maintain sufficient high quality liquid assets to meet their liquidity needs under a 30-day stress scenario; and

   - the Net Stable Funding Ratio (NSFR), which seeks to reduce banks' funding risk over a longer time horizon by requiring banks to fund their activities with sufficiently stable sources of funding.

2. The BCBS published its finalised standard on the NSFR (BCBS NSFR standard) in October 2014 and a set of "frequently asked questions" relating to the NSFR in July 2016.[2]

3. This consultation paper (CP) sets out the Hong Kong Monetary Authority's (HKMA) proposals for implementing the BCBS NSFR standard in Hong Kong. The HKMA invites comments on its proposals by 23 December 2016.

## 2. Structure of this CP

4. This CP is organised as follows:

   - Section II sets out the proposed scope of application;

   - Section III discusses the structure and requirements relating to the NSFR;

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[1] The LCR was implemented locally on 1 January 2015 and is applicable to Authorized Institutions (AIs) that are designated as "category 1 institutions" by the Monetary Authority (MA). Other AIs not designated as "category 1 institutions" are regarded as "category 2 institutions", and are subject to the Liquidity Maintenance Ratio (LMR), which serves a similar objective to the LCR.

[2] Available at http://www.bis.org/bcbs/publ/d295.pdf and http://www.bis.org/bcbs/publ/d375.pdf

- Section IV discusses the structure and requirements relating to a "modified NSFR" to be applied to those AIs not within the scope of the NSFR described in Section III;
- Section V sets out the proposed timeline for implementing the NSFR and modified NSFR requirements;
- Section VI outlines the major work to be undertaken by the HKMA to prepare for implementation of the new stable funding requirements.

# II SCOPE OF APPLICATION

## 1. NSFR for category 1 institutions

5. According to the BCBS NSFR standard (paragraph 50), the NSFR, as with the LCR, should be applied to all internationally active banks. It may also be applied to other banks to ensure greater consistency and a level-playing field between domestic and cross-border banks. From the implementation proposals issued by other major jurisdictions to date, a common approach appears to be the application of the NSFR (or a modified version of it) to not only banks that are internationally active but also other banks with some measure of substantial operations.[3]

6. In Hong Kong, we propose that the NSFR be applied to AIs which are designated as category 1 institutions (see footnote 1 above). We consider that the grounds for the designation of category 1 institutions as currently specified in Part 1 of Schedule 1 to the Banking (Liquidity) Rules (BLR) are appropriate for both LCR and NSFR purposes.[4] This means, as a general rule, that category 1 institutions will have to observe the requirements relating to both the LCR and NSFR contemporaneously.

## 2. Modified NSFR for category 2 institutions

7. From a prudential perspective, there is also a strong case for category 2 institutions to also be subject to some form of stable or core funding

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[3] For instance, the US agencies have proposed that the NSFR be applicable to banking organisations which have total consolidated assets reaching US$250 billion or on-balance sheet foreign exposure reaching US$10 billion, and a modified NSFR (essentially with a lower minimum required level) be applicable to those which have (i) total consolidated assets reaching US$50 billion but less than 250 billion and (ii) on-balance sheet foreign exposure of less than US$10 billion. In contrast, the European Banking Authority has recommended the application of the NSFR to all credit institutions (i.e. smaller banks being subject to the same requirement as their larger peers), while noting that it stands ready to conduct further work on possible metrics for an effective application of the principle of proportionality.

[4] The grounds currently specified in Part 1 of Schedule 1 to the BLR are: (i) the AI is internationally active; (ii) the AI is significant to the general stability and effective working of the banking system in Hong Kong; (iii) the liquidity risk associated with the AI is material; or (iv) the AI is so connected to another AI (being a category 1 institution) that, if the first-mentioned AI were not to be designated as a category 1 institution, such connection would prejudice, or may potentially prejudice, the calculation of the LCR by the second-mentioned AI, the calculation of the LMR by the first-mentioned AI, or both. Further explanation is provided in the Supervisory Policy Manual (SPM) module LM-1 "Regulatory Framework for Supervision of Liquidity Risk".
(http://www.hkma.gov.hk/media/eng/doc/key-functions/banking-stability/supervisory-policy-manual/LM-1.pdf)

requirement. This is because a considerable number of category 2 institutions play a significant role in the local banking and financial markets, and some have a substantial retail presence. There could however be some potentially significant operational issues if the NSFR were to be applied to category 2 institutions. For instance, a category 2 institution would likely need to make substantial changes to its internal systems, as the calculation of the NSFR entails the use of certain definitions under the LCR (which is not applicable to category 2 institutions). Also, a category 2 institution operating as a foreign bank branch may inherently be expected to have a lower NSFR due to the lack of capital at the branch level and/or the lack of an extensive retail deposit-taking network locally.

8. Based on these considerations, we propose that a modified form of the NSFR be applied to category 2 institutions (unless otherwise exempted). The modifications include grouping the capital, liability and asset items into broader categories for ease of calculation and adjusting the applicable Available Stable Funding (ASF) and Required Stable Funding (RSF) factors to better cater for the funding structure of category 2 institutions. The structure of the modified NSFR is explained further in section IV.

## 3. Bases of application

9. In line with the existing bases for the application of the LCR and LMR, the HKMA proposes to apply the NSFR and modified NSFR essentially on the following bases –

(a) Hong Kong office basis – every AI, irrespective of its place of incorporation, must comply with the applicable liquidity standard on a basis covering all of its business in Hong Kong;

(b) unconsolidated basis – a locally incorporated AI having one or more overseas branches must comply with the applicable liquidity standard on this basis additionally, covering all of its business in Hong Kong and the overseas branch(es); and

(c) consolidated basis – if a locally incorporated AI has one or more associated entities[5], the HKMA may also require the AI to comply with the applicable

5 The meaning of "associated entity" of an AI is specified in section 97H(4) of the Banking Ordinance.

liquidity standard on a consolidated basis (being the AI's Hong Kong office basis or the unconsolidated basis, where applicable, plus any of its associated entities specified by the HKMA).

10. Moreover, the HKMA will reserve the power to require a locally incorporated AI to comply with the NSFR or modified NSFR standard on a specified basis additionally covering any part of its business in or outside Hong Kong, as with the existing power under rule 12 of the BLR for LCR and LMR purposes.[6]

[6] As explained in paragraph 3.3.5 of SPM module LM-1, this power would only be exercised in exceptional circumstances.

# III NSFR

## 1. Calibrations and requirements

11. According to the BCBS NSFR standard (paragraph 9), the NSFR is defined as the ratio of the amount of ASF to the amount of RSF. The amount of ASF is the sum of liability and capital items weighted by the applicable prescribed "ASF factors"; and the amount of RSF is the sum of asset and certain off-balance sheet items weighted by the applicable prescribed "RSF factors". A summary of the applicable ASF and RSF factors to be used in the calculation of the NSFR is set out in **Annex 1**.

12. The HKMA proposes to follow the calibrations of all ASF and RSF factors and the related requirements as specified in BCBS NSFR standard. Specific items that are to be determined by national supervisors are discussed below.

Interdependent assets and liabilities

13. According to the BCBS NSFR standard (paragraph 45), national supervisors have discretion, in limited circumstances and subject to certain criteria[7], to determine whether, on the basis of contractual arrangements, certain assets and liabilities are "interdependent" such that both of the RSF factor for such assets and the ASF factor for such liabilities can be set equally at 0%. National supervisors are required to consider the potential perverse incentives or unintended consequences that may be created before exercising this discretion.

14. According to the HKMA's current understanding of the assets and liabilities typically maintained by category 1 institutions, there would not appear to be a material amount of interdependent assets and liabilities that can fully satisfy the criteria specified in the BCBS NSFR standard. Therefore, the HKMA does not propose to exercise national discretion for the purpose of describing any assets and liabilities as interdependent.

[7] The criteria are: (a) the individual interdependent asset and liability must be clearly identifiable; (b) the maturity and principal amount of the asset and the liability should be the same. The liability cannot fall due while the asset remains on the balance sheet; (c) the bank is acting solely as a "pass-through unit" to channel the funding received (i.e. the liability) into the corresponding asset. The liability cannot be used to fund any other asset; (d) the principal payment flows arising from the asset can only be used for repaying the liability; and (e) the counterparties for each pair of interdependent liabilities and assets should not be the same.

Off-balance sheet exposures

15. The BCBS NSFR standard (paragraph 47) specifies that undrawn commitments under irrevocable and conditionally revocable credit facilities and liquidity facilities to any customers shall be subject to an RSF factor of 5%. The treatment of other contingent funding obligations, including products and instruments specified below, are subject to national discretion:

(a) unconditionally revocable credit and liquidity facilities;

(b) trade-related contingencies;

(c) non-trade contingencies (including guarantees and letters of credit not related to trade-finance);

(d) non-contractual obligations arising from –

(i) potential requests for debt repurchases of a bank's own debt, or that of related conduits, securities investment vehicles and other such financing facilities;

(ii) structured products where customers anticipate ready marketability, such as adjustable rate notes and variable rate demand notes; and

(iii) managed funds that are marketed with the objective of maintaining a stable value.

16. For the undrawn portion of credit facilities and liquidity facilities which are unconditionally revocable, the HKMA proposes to apply an RSF factor of 0%. In determining whether a facility should be regarded as unconditionally revocable, a category 1 institution should follow the guidance currently provided in SPM module LM-1 "*Regulatory Framework for Supervision of Liquidity Risk*".[8]

[8] Please refer to paragraph 5.8.22 of SPM module LM-1. As a general principle, the HKMA expects that an AI should not only have regard to the contractual terms of such facilities (in particular, the presence of "protective" clauses to the effect that a facility is "unconditionally revocable") but should assess whether from a customer relationship, reputational, franchise or other perspective it is genuinely and credibly open to the AI, at any time, to revoke the facility unilaterally. In other words, the inclusion of a protective legal clause should not, per se, be regarded as a sufficient ground for an AI to treat its commitment under a facility as a "revocable" commitment.

17. For trade-related contingencies and other non-trade contingencies (including guarantees and letters of credit not related to trade), we propose an RSF factor of 3% and 10% to be applied respectively. This is based on the consideration that a category 1 institution should at least have stable funding to cater for the respective rates of outflow that are applicable for LCR purposes.

18. As regards non-contractual obligations, we are inclined to the view that it should not be necessary to assign an RSF factor unless there is a reasonable expectation that such obligations will materialise. Accordingly, the RSF will be 0% absent any such reasonable expectation. When however there is a reasonable expectation that any such obligation will materialise, the obligation should be treated as if it were a contractual off-balance sheet exposure and the applicable RSF factor should be applied. Once the obligation has materialised, it will become an on-balance sheet item and should be treated accordingly.

## 2. Minimum required level

19. Following the BCBS NSFR standard (paragraph 9), a category 1 institution will be required to maintain an NSFR of not less than 100% on an on-going basis. In this regard, we consider that there is a case for providing a mechanism whereby, in the case of a temporary immaterial shortfall, a category 1 institution will be given a brief opportunity to restore its NSFR position before significant supervisory action is taken.

20. More specifically, it is proposed that, if a category 1 institution's NSFR falls below 100% but remains above 90% and the shortfall is rectified within one month, this will not constitute a contravention of the BLR that would otherwise trigger the remedial process pursuant to section 97J of the Banking Ordinance. However, such a "self-rectification" mechanism will not be available in the case of any repeat shortfall within a twelve-month period in order to prevent possible abuse.

21. The remedial process pursuant to section 97J of the Banking Ordinance will be triggered in the event that –

(a) a category 1 institution's NSFR falls below 90%;

(b) a category 1 institution's NSFR falls below 100% and the breach is not rectified within one month following the occurrence of the shortfall; or

(c) a category 1 institution's NSFR falls below 100% and it is a repeat shortfall within a twelve-month period.

22. Notwithstanding the "self-rectification" mechanism mentioned in paragraph 20 above, whenever the NSFR of a category 1 institution falls below 100%, it will be a notifiable event, meaning that the institution must notify the HKMA immediately.

# IV MODIFIED NSFR

## 1. Structure

23. As mentioned in paragraph 8, we propose to make certain modifications to the NSFR for the purpose of devising a stable or core funding ratio for application to category 2 institutions. Particularly, the granularity of the components of ASF and RSF are proposed to be substantially reduced, so that –

- ASF will comprise four broad components: (i) capital; (ii) debt securities and prescribed instruments issued; (iii) non-bank customer deposits; (iv) other types of funding; and

- RSF will comprise two broad components: (i) on-balance sheet assets; and (ii) off-balance items.

24. The proposed structure of the modified NSFR (i.e. the components of ASF and RSF) is provided in **Annex 2**.

## 2. Minimum required level

25. We propose that category 2 institutions should be required to maintain a modified NSFR of not less than 75% on average in each calendar month.[9] This takes into account the need to provide a certain degree of flexibility for category 2 institutions to manage their longer-term funding. The "self-rectification" mechanism mentioned in paragraph 20 above, however, would not be applicable in the case of the modified NSFR, given that its minimum required level is to be applied on a monthly average basis.

26. Whenever a category 2 institution's average modified NSFR for a given month falls below 75%, it will be a notifiable event, meaning that the institution must notify the HKMA immediately. The remedial process pursuant to section 97J of the Banking Ordinance will be triggered in such event.

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[9] The average modified NSFR should be calculated as a ratio of the sum of modified ASF items for each working day during a month to the sum of modified RSF items for each working day during the same month. The HKMA may however permit a category 2 institution to calculate its average modified NSFR by reference to specified days during a month, as in the case of the LMR.

## 3. Exemptions

27. It is further proposed that the HKMA may exempt certain category 2 institutions which have small and simple operations from the modified NSFR requirement. In this regard, we would propose to exempt locally-incorporated category 2 institutions with total assets amounting to less than HK$20 billion and category 2 institutions operating as foreign bank branches with total assets amounting to less than HK$50 billion. Nevertheless, we may not exempt a category 2 institution in certain circumstances, such as, for instance, where it is connected to another category 2 institution and exempting it would prejudice, or may potentially prejudice, the calculation of the modified NSFR by itself or the connected institution or both.

28. It should be emphasised that any exempted category 2 institution is still expected to maintain a stable funding structure that is commensurate with its business nature and have in place robust systems and procedures to manage liquidity risk prudently. The HKMA may also attach conditions as appropriate to any exemption.

# V IMPLEMENTATION TIMELINE

29. The HKMA proposes to follow the timeline set by the BCBS, and accordingly, category 1 institutions and category 2 institutions will have to comply with the NSFR and modified NSFR requirements respectively from 1 January 2018. While the BCBS NSFR standard does not provide any phase-in arrangement for compliance with the minimum required level of NSFR, we may consider the case for phasing-in the minimum required level of modified NSFR for category 2 institutions should there be a need.

# VI WAY FORWARD

30. After receiving feedback from the industry, we will refine the proposals and prepare a set of draft amendments to the BLR to incorporate provisions relating to the NSFR and modified NSFR. Where appropriate, certain technical provisions relating to the calculation of the two ratios may be set out in a new Code of Practice to be issued under section 97M of the Banking Ordinance. A new return will also be developed for AIs to report their NSFR and modified NSFR positions. We expect to consult the industry further on the text of the draft amendments to the BLR and other related materials in the second half of 2017.

31. The HKMA has been conducting quantitative impact studies (QIS) on the NSFR and will conduct further QIS to help guide the finalisation of the NSFR and modified NSFR requirements in the coming months.

**Annex 1**

## Calculation of NSFR

| ASF item | | | Ref in BCBS NSFR standard | ASF factor (%) | | |
|---|---|---|---|---|---|---|
| | | | | Remaining maturity | | |
| | | | | **<6m** | **6-<12m** | **≥ 12m** |
| 1 | Capital | | | | | |
| | (a) | Regulatory capital (excluding tier-2 capital instruments) | 21(a) | 100 (for all maturities) | | |
| | (b) | Other capital instruments not included in sub-item (a) | 21(b), 24(d), 25(a) | 0 | 50 | 100 |
| | (c) | Minority interest | 25(b) | 0 | 50 | 100 |
| 2 | Debt securities and prescribed instruments issued | | 21(c), 24(d), 25(a) | 0 | 50 | 100 |
| 3 | Retail deposits | | | | | |
| | (a) | Stable retail deposits | 21(c), 22 | 95 | 95 | 100 |
| | (b) | Other retail deposits not included in sub-item (a) | 21(c), 23 | 90 | 90 | 100 |
| 4 | Small business funding | | | | | |
| | (a) | Stable small business funding | 21(c), 22 | 95 | 95 | 100 |
| | (b) | Other small business funding not included in sub-item (a) | 21(c), 23 | 90 | 90 | 100 |
| 5 | Operational deposits | | 21(c), 24(b) | 50 | 50 | 100 |
| 6 | Wholesale funding (other than operational deposits), provided by – | | | | | |
| | (a) | Corporates (other than small business customers), sovereigns, multilateral development banks, national development banks and public sector entities | 21(c), 24(a) | 50 | 50 | 100 |
| | (b) | The MA for a/c of Exchange Fund and overseas central banks | 21(c), 24(d), 25(a) | 0 | 50 | 100 |
| | (c) | Banks, non-bank financial institutions and other entities not specified in sub-item (a) and (b) | 21(c), 24(d), 25(a) | 0 | 50 | 100 |
| 7 | Other funding | | | | | |
| | (a) | Deferred tax liabilities | 25(b) | 0 | 50 | 100 |
| | (b) | Other funding not covered above | 21(c), 24(d), 25(a), 25(b) | 0 | 50 | 100 |
| 8 | Liabilities which cannot generate stable funding | | | | | |
| | (a) | "Trade-date payables" upon settlement | 25(d) | 0 (for all maturities) | | |
| | (b) | Net derivative liabilities | 25(c) | 0 (for all maturities) | | |
| | (c) | Any other liabilities not included above | | 0 (for all maturities) | | |

| RSF item | | | Ref in BCBS NSFR standard | RSF factor (%) | | |
|---|---|---|---|---|---|---|
| | | | | Remaining maturity | | |
| | | | | <6m | 6-<12m | ≥ 12m |
| **I** | **Encumbered assets** | | 31, 40(b), 43(a) | No special treatment | 50 or above | 100 |
| **II** | **Unencumbered assets and off-balance sheet items** | | | | | |
| 1 | Currency notes & coins | | 36(a) | 0 (for all maturities) | | |
| 2 | “Trade-date receivables” upon settlement | | 36(d) | 0 (for all maturities) | | |
| 3 | Central bank reserves | | 36(b) | 0 (for all maturities) | | |
| 4 | Claims on MA and overseas central banks | | 36(c), 40(c), 41(b), 42(b) | | | |
| | (a) | Subject to 35% risk weight or below | | 0 | 50 | 65 |
| | (b) | Other claims not included in sub-item (a) | | 0 | 50 | 85 |
| 5 | Marketable debt securities | | | | | |
| | (a) | Level 1 assets | 37 | 5 | 5 | 5 |
| | (b) | Level 2A assets | 39(a) | 15 | 15 | 15 |
| | (c) | Level 2B assets | 40(a) | 50 | 50 | 50 |
| | (d) | Other marketable debt securities not included in sub-items (a) to (c) | 40(e), 42(c) | 50 | 50 | 85 |
| 6 | Other marketable securities (e.g. exchange-traded equities), excluding derivatives (which are reported under item 12 below) | | 42(c) | 85 (for all maturities) | | |
| 7 | Physical traded commodities (e.g. gold) | | 42(d) | 85 (for all maturities) | | |
| 8 | Operational deposits placed at other financial institutions | | 40(d) | 50 | 50 | 100 |
| 9 | Loans and funding provided to (hence receivable from) financial institutions | | | | | |
| | (a) | Secured by level 1 assets that can be re-hypothecated | 38, 40(c), 43(c) | 10 | 50 | 100 |
| | (b) | Others not included in sub-tem (a) | 39(b), 40(c), 43(c) | 15 | 50 | 100 |
| 10 | Loans and funding provided to (hence receivable from) customers (excluding financial institutions) | | | | | |
| | (a) | Loans and funding subject to 35% risk weight or below | 40(e), 41(a)&(b) | 50 | 50 | 65 |
| | (b) | Other loans and funding (which are performing) not included in sub-item (a) | 40(e), 42(b) | 50 | 50 | 85 |
| 11 | Initial margin collateral | | 42(a) | 85, or 100 if the collateral is subject to an RSF factor of 100 (for all maturities) | | |
| 12 | Net derivative assets | | 43(b) | 100 (for all maturities) | | |
| 13 | Other assets not covered above | | 40(e), 43(c) | 50 | 50 | 100 |

| RSF item | | | Ref in BCBS NSFR standard | RSF factor (%) | | |
|---|---|---|---|---|---|---|
| | | | | Remaining maturity | | |
| | | | | **<6m** | **6-<12m** | **≥ 12m** |
| 14 | Off-balance sheet items | | 47 | | | |
| | (a) | Undrawn portions of irrevocable and conditionally revocable credit facilities and liquidity facilities | | 5 (for all maturities) | | |
| | (b) | Undrawn portions of unconditionally revocable credit facilities and liquidity facilities | | 0 (for all maturities) | | |
| | (c) | Trade-related contingencies | | 3 (for all maturities) | | |
| | (d) | Non-trade contingencies (including guarantees and letters of credit not included in sub-item (c)) | | 10 (for all maturities) | | |
| 15 | Add on: 20% of derivative liabilities | | 43(d) | 100 (for all maturities) | | |

**Annex 2**

## Calculation of Modified NSFR

| ASF item | | | ASF factor (%) | | |
|---|---|---|---|---|---|
| | | | Remaining maturity | | |
| | | | <6m | 6-<12m | ≥ 12m |
| 1 | Capital | | | | |
| | (a) | Regulatory capital (excluding tier-2 capital instruments) | 100 (for all maturities) | | |
| | (b) | Other capital instruments not included in sub-item (a) | 0 | 50 | 100 |
| | (c) | Minority interest | 0 | 50 | 100 |
| 2 | Debt securities and prescribed instruments issued | | 0 | 50 | 100 |
| 3 | Non-bank customer deposits | | 80 | 90 | 100 |
| 4 | Other types of funding | | 0 | 50 | 100 |
| 5 | Liabilities which cannot generate stable funding | | 0 (for all maturities) | | |

| RSF item | | | RSF factor (%) | | |
|---|---|---|---|---|---|
| | | | Remaining terms to maturity | | |
| | | | <6m | 6-<12m | ≥ 12m |
| 1 | On-balance sheet assets (excluding liquefiable assets defined under LMR) | | 0 | 50 | 100 |
| 2 | Off-balance sheet items | | | | |
| | (a) | Undrawn portions of irrevocable and conditionally revocable credit facilities and liquidity facilities | 5 (for all maturities) | | |
| | (b) | Undrawn portions of unconditionally revocable credit facilities and liquidity facilities | 0 (for all maturities) | | |
| | (c) | Trade-related contingencies | 3 (for all maturities) | | |
| | (d) | Non-trade contingencies (including guarantees and letters of credit not included in item (c)) | 10 (for all maturities) | | |