MAS 652

NOTICE TO BANKS

BANKING ACT, CAP 19

NET STABLE FUNDING RATIO ("NSFR")

Introduction

1 This Notice is issued pursuant to sections 36 and 55 of the Banking Act (Cap. 19) ("the Act") and applies to a bank in Singapore which has been notified by the Authority that it is a domestic systemically important bank ("D-SIB").

2 This Notice sets out the minimum all currency Net Stable Funding Ratio ("NSFR") requirements that a D-SIB has to comply with –

a) in the case of a D-SIB incorporated and headquartered in Singapore, all currency NSFR of at least 100% on an ongoing basis, at a banking group level, after excluding the following banking group entities:

   i) any investment in an insurance subsidiary; and

   ii) any investment in any non-banking group entity if such non-consolidation is permitted under the Accounting Standards as defined in section 4(1) of the Companies Act (Cap. 50);

b) in the case of a D-SIB headquartered outside Singapore and which has not obtained the approval of the Authority pursuant to paragraph 4 of MAS Notice 649 to comply with the requirements set out in that Notice on a country-level group basis, all currency NSFR of at least 50% on an ongoing basis, at the entity-level; and

c) in the case of a D-SIB headquartered outside Singapore and which has obtained the approval of the Authority pursuant to paragraph 4 of MAS Notice 649 to comply with the requirements set out in that Notice on a country-level group basis, all currency NSFR of at least 50% on an ongoing basis, at the country–level group basis.

Definitions

3 In this Notice –

"available stable funding" or "ASF" means the portion of capital and liabilities held by a bank that is expected to be reliable over one year;

"banks within the same cooperative network" means a group of legally autonomous banks with a statutory framework of cooperation with common strategic focus and brand where specific functions are performed by central institutions or specialized service providers;

"carrying value" means the amount at which a liability or equity instrument is recorded before the application of any regulatory deductions, filters or other adjustments;

"High quality liquid assets" or "HQLA" means any assets listed in paragraph 39;

"Level 1 HQLA" means any HQLA listed in paragraphs 39(a), 39(b), 39(c), 39(d), 39(g), 39(h) or 39(n);

"Level 2A HQLA" means any HQLA listed in paragraphs 39(e), 39(i) or 39(o);

"Level 2B HQLA" means any HQLA listed in paragraphs 39(f), 39(j), 39(k), 39(l), 39(m) or 39(o);

"net stable funding ratio" or "NSFR" means the amount of available stable funding relative to the amount of required stable funding in a bank and is computed as follows:

$$\text{NSFR} = \frac{\text{Available stable funding}}{\text{Required stable funding}}$$

"non-performing loans" means loans that are more than 90 days past due;

"performing loans" means loans that are not past due for more than 90 days;

"regulatory capital" means capital as set out in paragraphs 6.1.1 to 6.3.8 of MAS Notice 637[1];

"required stable funding" or "RSF" is a function of the liquidity characteristics and residual maturities of the various assets held by a bank, including its off-balance sheet ("OBS") exposures; and

[1] For the avoidance of doubt, paragraphs 6.5.1 to 6.5.9 of MAS Notice 637 are not applicable.

"unencumbered" means free of legal, regulatory, contractual or other restrictions on the ability of the bank to liquidate, sell, transfer or assign the assets.

4 The expressions used in this Notice shall, except where defined in this Notice or where the context otherwise requires, have the same meaning as in the Act and in MAS Notice 649.

Calculation Methodology

(A) ASF Calculation Methodology

5 The amount of ASF is measured based on the broad characteristics of the relative stability of a bank's funding sources, including the contractual maturity of its liabilities and the differences in the propensity of different types of funding providers to withdraw their funding. A bank shall calculate its ASF by first assigning the carrying value of its capital and liabilities to one of five categories set out in paragraphs 6 to 17 below and multiplying the carrying value with the assigned ASF factor set out in Table 1 in the Annex. The total ASF is the sum of the weighted amounts.

6 A bank shall assign the following liabilities and capital instruments a 100% ASF factor:

a) the total amount of regulatory capital, before the application of capital deductions, excluding the proportion of Tier 2 instruments with residual maturity of less than one year;

b) the total amount of any capital instrument not included in (a) that has an effective residual maturity of one year or more, but excluding any instruments with explicit or embedded options that, if exercised, would reduce the expected maturity to less than one year; and

c) the total amount of secured and unsecured borrowings and liabilities (including term deposits) with effective residual maturities of one year or more. Cash flows falling below the one-year horizon but arising from liabilities with a final maturity greater than one year do not qualify for the 100% ASF factor.

7 A bank shall assign the following liabilities a 95% ASF factor:

a) stable[2], non-maturity (demand) deposits provided by retail[3] and small business customers; and

b) stable term deposits with residual maturities of less than one year provided by retail and small business customers.

8 A bank shall assign the following liabilities a 90% ASF factor:

a) less stable[4], non-maturity (demand) deposits provided by retail and small business customers; and

b) less stable term deposits with residual maturities of less than one year provided by retail and small business customers.

9 A bank shall assign the following liabilities a 50% ASF factor:

a) funding (secured and unsecured) with a residual maturity of less than one year provided by non-financial corporate customers;

b) operational deposits as set out in paragraph 10, for which a bank has obtained the approval of the Authority pursuant to paragraph 46 of MAS Notice 649 to allocate a cash outflow rate of 25% for the calculation of the liquidity coverage ratio (LCR);

c) funding with residual maturity of less than one year from sovereigns, public sector entities (PSEs)[5], and multilateral and national development banks; and

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[2] Stable deposits are those which are fully insured by the Singapore Deposit Insurance Corporation Limited (SDIC), or an effective government deposit insurance scheme, where:

a) The depositors have established relationships with the bank such that the deposits highly unlikely to be withdrawn ("established relationships"); or
b) The deposits are in transactional accounts (e.g. account where salaries are automatically credited).

Where a bank has a branch or subsidiary in other jurisdictions carrying on banking business, and has stable deposits that are fully insured by other effective government deposit insurance schemes, the bank shall follow the relevant treatment adopted in the host jurisdiction where the branch or subsidiary operates.

[3] Retail deposits are deposits placed with a bank by a natural person.

[4] Less stable deposits are deposits that are not stable deposits.

[5] PSE, or Public Sector Entity, refers to –

a) a regional government or local authority able to exercise one or more functions of the central government at a regional or local level;
b) an administrative body or non-commercial undertaking responsible to, or owned by, a central government, regional government or local authority, which performs regulatory or non-commercial functions;

d) other funding (secured and unsecured) not included in paragraphs 6 to 8 with residual maturity between six months to less than one year, including funding from central banks and financial institutions.

10 For the purpose of paragraph 9(b), operational deposits shall be determined as follows:

a) Operational deposits should only include deposits from customers with qualifying clearing, custody and cash management accounts with the banks ("qualifying operational deposits"). The portion of operational deposits generated by clearing, custody and cash management activities that is fully covered by any deposit insurance scheme shall receive the same treatment as "stable" retail deposits.

b) Qualifying clearing, custody or cash management activities shall meet the following criteria:

   i) the customer is reliant on the bank to perform these services as an independent third party intermediary in order to fulfil its normal banking activities over the next 30 days. For example, this condition would not be met if the bank is aware that the customer has adequate back-up arrangements;

   ii) the bank is providing these services under a legally binding agreement to customers; and

   iii) the customer may only terminate such agreements either by giving prior notice of at least 30 days or paying significant switching costs (such as those related to transaction, information technology, early termination or legal costs) if the operational deposits are withdrawn before 30 days.

c) Qualifying operational deposits generated from the qualifying clearing, custody and cash management activities shall meet the following criteria:

   i) the deposits are by-products of the underlying services provided by the bank and not sought out in the wholesale market in the sole interest of offering interest income; and

   ii) the deposits are held in specifically designated accounts and priced without giving an economic incentive to the customer (not limited to paying market interest rates) to leave any excess funds on these accounts.

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c) a statutory board in Singapore (other than MAS); or

d) a town council in Singapore established pursuant to the Town Councils Act (Cap. 392A).

In the case that interest rates in a jurisdiction are close to zero, such accounts are likely to be non-interest bearing. A bank should be particularly aware that during prolonged periods of low interest rates, excess balances[6] could be significant.

d) A bank shall determine the methodology for identifying excess deposits that are excluded from this category. A bank shall conduct the assessment based on the methodology at a sufficiently granular level to adequately assess the risk of withdrawal in an idiosyncratic stress. The methodology shall take into account relevant factors such as the likelihood that wholesale customers have above average balances in advance of specific payment needs, and consider appropriate indicators (e.g. ratios of account balances to payment or settlement volumes or to assets under custody) to identify those customers that are not actively managing account balances efficiently.

e) Notwithstanding the inclusion of a deposit into the operational deposit category, if the deposit under consideration arises out of correspondent banking[7] or from the provision of prime brokerage services, a bank shall treat the deposit as if there were no operational activity.

11 A bank shall assign the following liabilities a 0% ASF factor:

a) all other liabilities and equities not included in paragraphs 6 to 9, including other funding with residual maturity of less than six months from central banks and financial institutions, including banks within the same institutional network of cooperative banks (“cooperative network”)[8].

b) other liabilities without a stated maturity[9]. The only exceptions for liabilities without a stated maturity are the following and the bank shall assign such liabilities either a 100% ASF factor if the effective maturity is one year or

[6] Any excess balances that may be withdrawn while still leaving sufficient funds to fulfil the qualifying clearing, custody and cash management activities do not qualify as operational deposits.

[7] Correspondent banking refers to arrangements under which one bank (correspondent) holds deposits owned by other banks (respondents) and provides payment and other services in order to settle foreign currency transactions (e.g. so-called nostro and vostro accounts used to settle transactions in a currency other than the domestic currency of the respondent bank for the provision of clearing and settlement of payments). Prime brokerage is a package of services offered to large active investors, particularly institutional hedge funds. These services usually include: clearing, settlement and custody; consolidated reporting; financing (margin, repo or synthetic); securities lending; capital introduction; and risk analytics.

[8] A cooperative network is a group of legally autonomous banks with a statutory framework of cooperation with a common strategic focus and brand where specific functions are performed by central institutions or specialized service providers.

[9] This may include short positions and open maturity positions.

greater, or a 50% ASF factor if the effective maturity is between 6 months and less than one year:

i) first, deferred tax liabilities, which should be treated according to the nearest possible date on which such liabilities could be realised; and

ii) second, minority interest, which should be treated according to the term of the instrument, usually in perpetuity.

c) NSFR derivative liabilities net of NSFR derivative assets, if NSFR derivative liabilities are greater than NSFR derivative assets[10], where NSFR derivative liabilities are calculated in accordance with paragraphs 16 and 17 and NSFR derivative assets are calculated in accordance with paragraphs 29 to 31; and

d) trade date payables arising from purchases of financial instruments, foreign currencies and commodities that:

i) are expected to settle within the standard settlement cycle or period that is customary for the relevant exchange or type of transaction; or

ii) have failed to, but are still expected to settle.

12 To determine the maturity of an equity or liability instrument, a bank shall assume that investors will redeem a call option at the earliest possible date.

13 For funding with options exercisable at the bank's discretion, a bank shall take into account reputational factors that may limit its ability not to exercise the option.[11] In particular, where the market expects certain liabilities to be redeemed before their legal final maturity date, a bank shall assume such behaviour for the purpose of the NSFR and include these liabilities in the corresponding ASF category.

14 For long-dated liabilities, a bank shall treat only the portion of cash flows falling at or beyond the six-month and one-year time horizons as having an effective residual maturity of six months or more and one year or more, respectively.

15 Deposits between banks within the same cooperative network may be excluded from liabilities receiving a 0% ASF provided they are either (a) required by law in some jurisdictions to be placed with the central institutions or specialized central service providers and are legally constrained within the cooperative network as minimum deposit requirements, or (b) in the context of common task sharing and legal, statutory or

[10] ASF = 0% x MAX ((NSFR derivative liabilities – NSFR derivative assets), 0).

[11] This refers to a case where a bank may be subject to funding risk if it did not exercise an option on its own funding.

contractual arrangements, so long as the bank that has received the monies and the bank that has deposited participate in the same institutional network's mutual protection scheme against illiquidity and insolvency of its members. A bank shall obtain the Authority's approval before applying the treatment set out in this paragraph. Such deposits may be assigned an ASF up to the RSF factor assigned for the same deposits to the depositing bank, provided that such ASF does not exceed 85%.

16 A bank shall calculate derivative liabilities based on the replacement cost for derivative contracts (obtained by marking to market) where the contract has a negative value. When an eligible bilateral netting contract is in place that meets the conditions as set out in Annex 7N of part VII of the MAS Notice 637, a bank shall take the replacement cost for the set of derivative exposures covered by the contract as the net replacement cost. A bank may exclude, from its calculation, derivative transactions with central banks[12] if such transactions:

a) arise from the central bank's short-term monetary policy and liquidity operations; and

b) have a maturity of six months or less at inception.

17 In calculating NSFR derivative liabilities[13], a bank shall deduct collateral posted in the form of variation margin in connection with derivative contracts (regardless of the asset type) from the negative replacement cost amount. To the extent that the bank's accounting framework reflects on balance sheet, in connection with a derivative contract, an asset associated with collateral posted as variation margin that is deducted from the replacement cost amount for purposes of the NSFR, the bank shall not include that asset in the calculation of a bank's RSF to avoid any double-counting.

(B) RSF Calculation Methodology

18 A bank shall measure the amount of RSF based on the broad characteristics of the liquidity risk profile of a bank's assets and OBS exposures.

19 A bank shall calculate the amount of RSF by first assigning the carrying value of its assets to one of eight categories set out in paragraphs 32 to 43 below and multiplying the carrying value with the assigned RSF factor set out in Table 2 in the Annex. The total RSF is the sum of the weighted amounts added to the amount of off balance sheet activity (or potential liquidity exposure) multiplied by its associated RSF factor.

[12] Such transactions include foreign exchange derivatives such as foreign exchange swaps.
[13] NSFR derivative liabilities = (derivative liabilities) – (total collateral posted as variation margin on derivative liabilities).

20 The RSF factors assigned to various types of assets are intended to approximate the amount of a particular asset that would have to be funded, either because it will be rolled over, or because it could not be monetised through sale or used as collateral in a secured borrowing transaction over the course of one year without significant expense. A bank shall support the amount of particular assets that would have to be so funded by stable funding.

21 A bank shall allocate assets to the appropriate RSF factor based on their residual maturity or liquidity value.

22 A bank shall assume that investors would exercise any option to extend maturity when determining the maturity of an instrument. For assets with options exercisable at the bank's discretion, the bank shall take into account reputational factors that may limit a bank's ability not to exercise the option.[14] In particular, where the market expects certain assets to be extended in their maturity, a bank shall assume such behaviour for the purpose of the NSFR and include these assets in the corresponding RSF category.

23 For amortising loans, a bank shall treat the portion that comes due within the one-year horizon in the less-than-one-year residual maturity category.

24 To determine its RSF, a bank shall:

a) include financial instruments, foreign currencies and commodities for which a purchase order has been executed; and

b) exclude financial instruments, foreign currencies and commodities for which a sales order has been executed,

even if such transactions have not been reflected in the balance sheet under a settlement-date accounting model, provided that:

i) such transactions are not reflected as derivatives or secured financing transactions in the bank's balance sheet; and

ii) the effects of such transactions will be reflected in the bank's balance sheet when settled.

25 A bank shall assign encumbered assets on the balance sheet with an RSF factor in the following manner:

[14] This refers to a case where a bank may be subject to funding risk if it did not exercise an option on its own assets.

a) assets that are encumbered[15] for one year or more shall be assigned a 100% RSF factor;

b) assets that are encumbered for a period of between six months and less than one year that would, if unencumbered, receive an RSF factor lower than or equal to 50%, shall be assigned a 50% RSF factor;

c) assets that are encumbered for between six months and less than one year that would, if unencumbered, receive an RSF factor higher than 50% shall be assigned that higher RSF factor;

d) assets that have less than six months remaining in the encumbrance period shall be assigned the same RSF factor as an equivalent asset that is unencumbered; and

e) assets that are encumbered for exceptional[16] central bank liquidity operations shall be assigned the same RSF factor applied to the equivalent asset that is unencumbered.

26 For secured funding arrangements, a bank shall in determining its assets:

a) exclude securities which it has borrowed in securities financing transactions[17] where it does not have beneficial ownership;

b) include securities it has lent in securities financing transactions where it retains beneficial ownership; and

c) exclude securities it has received through collateral swaps if those securities do not appear on its balance sheets.

27 Where a bank has encumbered securities in repos or other securities financing transactions, but has retained beneficial ownership, and those assets remain on the bank's balance sheet, the bank shall allocate such securities to the appropriate RSF category in the manner set out in paragraphs 32 to 43 in this Notice.

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[15] Encumbered assets include but are not limited to assets backing securities or covered bonds and assets pledged in securities financing transactions or collateral swaps.

[16] 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.

[17] These include reverse repos and collateral swaps.

28 A bank shall measure securities financing transactions with a single counterparty net when calculating the NSFR, provided that the netting conditions set out in paragraph 2.18 in Annex 4A of MAS Notice 637 are met.

29 A bank shall calculate derivative assets based on the replacement cost for derivative contracts (obtained by marking to market) where the contract has a positive value. When an eligible bilateral netting contract is in place that meets the conditions as set out in Annex 7N of part VII of the MAS Notice 637, a bank shall take the replacement cost for the set of derivative exposures covered by the contract as the net replacement cost. A bank may exclude, from its calculation, derivative transactions with central banks[18] if such transactions:

a) arise from the central bank's short-term monetary policy and liquidity operations; and

b) have a maturity of six months or less at inception.

30 In calculating NSFR derivative assets[19], a bank shall not offset the positive replacement cost amount with the collateral received in connection with derivative contracts regardless of whether or not netting is permitted under the bank's operative accounting or risk-based framework, unless the collateral is received in the form of cash variation margin and meets the conditions as set out in paragraph 2.11 in Annex 4A of MAS Notice 637.

31 A bank shall not offset derivative assets with any remaining balance sheet liability associated with (a) variation margin received that does not meet the criteria as set out in paragraph 30 or (b) initial margin received, and shall assign such derivatives assets a 0% ASF factor.

32 A bank shall assign following assets a 0% RSF factor:

a) coins and banknotes immediately available to meet obligations;

b) all central bank reserves (including required reserves and excess reserves), unless relevant supervisors or central bank have assigned RSF factors to these reserves;

c) all claims on central banks with residual maturities of less than six months; and

d) trade date receivables arising from sales of financial instruments, foreign currencies and commodities that (i) are expected to settle within the standard

[18] Such transactions include foreign exchange derivatives such as foreign exchange swaps.
[19] NSFR derivative assets = (derivative assets) – (cash collateral received as variation margin on derivative assets).

settlement cycle or period that is customary for the relevant exchange or type of transaction, or (ii) have failed to, but are still expected to, settle.

33 A bank shall assign a 5% RSF factor to unencumbered Level 1 HQLA, excluding assets receiving a 0% RSF as specified in paragraph 32.

34 A bank shall assign a 10% RSF factor to unencumbered loans to financial institutions with residual maturities of less than six months, where the loan is secured against Level 1 HQLA and where the bank has the ability to freely rehypothecate the collateral received for the life of the loan.

35 A bank shall assign the following assets a 15% RSF factor:

a) unencumbered Level 2A HQLA; and

b) all other unencumbered loans to financial institutions with residual maturities of less than six months not included in paragraph 34.

36 A bank shall assign the following assets a 50% RSF factor:

a) unencumbered Level 2B HQLA;

b) any HQLA that are encumbered for a period of between six months and less than one year;

c) all loans to financial institutions and central banks with residual maturity of between six months and less than one year;

d) deposits held at other financial institutions for operational purposes, as outlined in paragraph 10 in this Notice, that are subject to the 50% ASF factor in paragraph 9(b); and

e) all other non-HQLA not included in paragraphs 32 to 35 that have a residual maturity of less than one year, including loans to non-financial corporate clients, loans to retail customers and small business customers, and loans to sovereigns and PSEs.

37 A bank shall assign the following assets a 65% RSF factor:

a) unencumbered residential mortgages with a residual maturity of one year or more that would qualify for a 35% or lower risk weight under MAS Notice 637's standardised approach to credit risk as set out in paragraph 7.3.29 of MAS Notice 637; and

b) other unencumbered loans not included in paragraphs 32 to 36, excluding loans to financial institutions, with a residual maturity of one year or more that would qualify for a 35% or lower risk weight under MAS Notice 637's standardised approach to credit risk as set out in paragraphs 7.3.13 to 7.3.20 and paragraphs 7.3.24 to 7.3.26 of MAS Notice 637.

38 A bank shall assign the following assets an 85% RSF factor:

a) cash, securities or other assets posted as initial margin for derivative contracts, excluding those initial margin posted on behalf of a customer, where the bank does not guarantee performance of the third party and cash or other assets provided to contribute to the default fund of a central counterparty ("CCP"). Where securities or other assets posted as initial margin for derivative contracts would otherwise receive a higher RSF factor, a bank shall retain that higher factor for such securities or assets.

b) other unencumbered performing loans that do not qualify for the 35% or lower risk weight under MAS Notice 637's standardised approach to credit risk as set out in paragraphs 7.3.13 to 7.3.20 and paragraphs 7.3.24 to 7.3.30 of MAS Notice 637 and have residual maturities of one year or more, excluding loans to financial institutions;

c) unencumbered securities with a remaining maturity of one year or more and exchange-traded ordinary shares, that are not in default and do not qualify as HQLA; and

d) physical traded commodities, including gold.

39 For the purpose of paragraphs 33 to 36 and paragraph 38, HQLA shall be determined as follows:

a) notes and coins in the relevant currency or currencies, as the case may be, including notes and coins which are customary tender in Singapore;

b) reserves held with the Authority and other central banks, to the extent that the Authority and the central banks' policies allow them to be drawn down in times of stress;

c) any sukuk issued by Singapore Sukuk Pte Ltd;

d) any marketable security representing a claim on or guaranteed by a sovereign, a central bank, a PSE, the Bank for International Settlements, the International Monetary Fund, the European Central Bank, European Community or multilateral development bank, which satisfies the following conditions:

i) it is assigned a 0% risk-weight under MAS Notice 637's standardised approach to credit risk as set out in paragraphs 7.3.13 to 7.3.20 of MAS Notice 637;

ii) it is traded in large, deep and active repurchase agreement ("repo") or cash markets characterised by a low level of concentration;

iii) it has a proven record as a reliable source of liquidity in the markets (repo or sale) even during stressed market conditions; and

iv) it is not an obligation of a financial institution or any of its related corporations;

e) any marketable security representing a claim on or guaranteed by, a sovereign, a central bank, a PSE or a multilateral development bank which satisfies the following conditions:

i) it is assigned a 20% risk weight under MAS Notice 637's standardised approach to credit risk as set out in paragraphs 7.3.13 to 7.3.20 of MAS Notice 637;

ii) it is traded in large, deep and active repo or cash markets characterised by a low level of concentration;

iii) it has a proven record as a reliable source of liquidity in the markets (repo or sale) even during stressed market conditions, i.e. a maximum price decline or increase in haircut not exceeding 10 percentage points over a 30-day period of significant liquidity stress; and

iv) it is not an obligation of a financial institution or any of its related corporations;

f) any marketable security representing a claim on or guaranteed by a sovereign or central bank which satisfies the following conditions:

i) it has a long-term credit rating from a recognised ECAI between BBB+ and BBB- or in the absence of a long term rating, a short-term rating equivalent in quality to the long-term rating, or does not have a credit assessment by a recognised ECAI and is internally rated as having a probability of default ("PD") corresponding to a credit rating of between BBB+ and BBB-;

ii) it is traded in large, deep and active repo or cash markets characterised by a low level of concentration;

iii) it has a proven record as a reliable source of liquidity in the markets (repo or sale) even during stressed market conditions, i.e. a maximum price decline or increase in haircut not exceeding 20 percentage points over a 30-day period of significant liquidity stress; and

iv) it is not an obligation of a financial institution or any of its related corporations;

g) where a sovereign has a non-0% risk weight as determined in accordance with MAS Notice 637's standardised approach to credit risk as set out in paragraph 7.3.13 of MAS Notice 637, any sovereign or central bank debt security issued in domestic currencies by the sovereign or its central bank:

i) if the sovereign or central bank is from a bank's home country; or

ii) if the sovereign or central bank is from a host jurisdiction where a bank has a branch or subsidiary and the bank or its subsidiary takes liquidity risk in that jurisdiction;

h) where the sovereign has a non-0% risk weight as determined in accordance with MAS Notice 637's standardised approach to credit risk as set out in paragraph 7.3.13 of MAS Notice 637, any sovereign or central bank debt security issued in foreign currencies by the sovereign or its central bank:

i) if the sovereign or central bank is from a bank's home country; or

ii) if the sovereign or central bank is from a host jurisdiction where a bank has a branch or subsidiary and the bank or its subsidiary takes liquidity risk in that jurisdiction;

up to the amount of a bank's stressed net cash outflows in that specific foreign currency arising from the bank or its subsidiary's operations in the jurisdiction where the bank has a branch or subsidiary;

i) any corporate debt security, covered bond or sukuk, which satisfies the following conditions:

i) in the case of a corporate debt security, it is not issued by a financial institution or any of its related corporations;

ii) in the case of a covered bond, it is not issued by the bank itself or any of its related corporations;

iii) it has a long-term credit rating from a recognised ECAI of at least AA- or in the absence of a long term rating, a short-term rating equivalent in quality to the long-term rating[20], or does not have a credit assessment by a recognised ECAI but is internally rated as having a PD corresponding to a credit rating of at least AA-;

iv) it is traded in large, deep and active repo or cash markets characterised by a low level of concentration; and

v) it has a proven record as a reliable source of liquidity in the markets (repo or sale) even during stressed market conditions, i.e. a maximum price decline or increase in haircut not exceeding 10 percentage points over a 30-day period of significant liquidity stress;

j) any corporate debt security or sukuk, which satisfies all of the following conditions:

i) it is not issued by a financial institution or any of its related corporations;

ii) it has a long-term credit rating from a recognised ECAI between A+ and A- or in the absence of a long term rating, a short-term rating equivalent in quality to the long-term rating, or does not have a credit assessment by a recognised ECAI and is internally rated as having a PD corresponding to a credit rating of between A+ and A-;

iii) it is traded in large, deep and active repo or cash markets characterised by a low level of concentration; and

iv) it has a proven record as a reliable source of liquidity in the markets (repo or sale) even during stressed market conditions, i.e. a maximum price decline or increase in haircut not exceeding 20 percentage points over a 30-day period of significant liquidity stress;

k) any corporate debt security or sukuk, which satisfies all of the following conditions:

[20] In the event of split ratings, the applicable rating shall be determined according to the method used in MAS Notice 637's standardised approach for credit risk as set out in paragraph 7.3.4 of MAS Notice 637. Local rating scales (rather than international ratings) of a recognized ECAI under paragraph 7.3.53 of MAS Notice 637 can be recognised if corporate debt securities or covered bonds are held by a bank for local currency liquidity needs arising from its operations in that local jurisdiction. This also applies to paragraphs 39(j) and 39(k) of this Notice.

i) it is not issued by a financial institution or any of its related corporations;

ii) it has a long-term credit rating from a recognised ECAI between BBB+ and BBB- or in the absence of a long term rating, a short-term rating equivalent in quality to the long-term rating, or does not have a credit assessment by a recognised ECAI and is internally rated as having a PD corresponding to a credit rating of between BBB+ and BBB-;

iii) it is traded in large, deep and active repo or cash markets characterised by a low level of concentration; and

iv) it has a proven record as a reliable source of liquidity in the markets (repo or sale) even during stressed market conditions, i.e. a maximum price decline or increase in haircut not exceeding 20 percentage points over a 30-day period of significant liquidity stress;

l) any residential mortgage-backed security ("RMBS") which satisfies the following requirements:

i) it is not issued by, and the underlying assets have not been originated by, the bank itself or any of its related corporations;

ii) it has a long-term credit rating from a recognised ECAI of AA or higher, or in the absence of a long term rating, a short-term rating equivalent in quality to the long-term rating;

iii) it is traded in large, deep and active repo or cash markets characterised by a low level of concentration;

iv) it has a proven record as a reliable source of liquidity in the markets (repo or sale even during stressed market conditions, i.e. a maximum price decline or increase in haircut not exceeding 20 percentage points over a 30-day period of significant liquidity stress;

v) the underlying asset pool is restricted to residential mortgages and does not contain structured products;

vi) the underlying residential mortgages are "full recourse" loans (i.e. in the case of foreclosure the mortgage owner remains liable for any shortfall in sales proceeds from the property) and have a maximum weighted average[21] loan-to-value ratio (LTV) of 80% at issuance; and

vii) the securitisations are subject to risk retention laws and regulations which require issuers to retain an interest in the assets they securitise.

m) any ordinary shares, excluding preference shares and treasury shares, which satisfy all of the following requirements:

i) the shares are not issued by a financial institution or any of its related corporations;

ii) the shares are exchange traded and centrally cleared;

iii) the shares are a constituent of:

(A) the FTSE Straits Times Index ("STI") or the MSCI Singapore Free Index;

(B) if the stock is held in a jurisdiction outside of Singapore to meet liquidity risks in that jurisdiction, an index that the banking supervisor of that jurisdiction recognises for purposes of including the equities as Level 2B HQLA under the applicable regulatory policy; or

(C) any other index for which a bank can demonstrate to the satisfaction of the Authority that the stock is as liquid and readily marketable as equities traded on the indices in subparagraph (iii)(A).

iv) denominated in the domestic currency of a bank's home jurisdiction or in the currency of the jurisdiction where a bank's liquidity risk is taken;

v) traded in large, deep and active repo or cash markets characterised by a low level of concentration; and

vi) have a proven record as a reliable source of liquidity in the markets (repo or sale) even during stressed market conditions, i.e. a maximum price decline or increase in haircut not exceeding 40 percentage points over a 30-day period of significant liquidity stress.

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[21] Weighted average LTV is computed as follows:

$$\boldsymbol{weighted\ average\ LTV} = \frac{\text{mortgage amount1} \times \text{LTV1} + \text{mortgage amount2} \times \text{LTV2} + \cdots + \text{mortgage amountn} \times \text{LTVn}}{\text{mortgage amount1} + \text{mortgage amount2} + \cdots + \text{mortgage amountn}}$$

Where n is the number of residential mortgages in the RMBS.

n) any liquid assets recognized as alternative liquid assets in jurisdictions that implement the Alternative Liquidity Approach (ALA)[22] and which the banking supervisor of that jurisdiction recognises for purposes of including the liquid assets as Level 1 HQLA; and

o) any liquid assets recognized as alternative liquid assets in jurisdictions that implement the Alternative Liquidity Approach (ALA) and which the banking supervisor of that jurisdiction recognises for purposes of including the liquid assets as Level 2 HQLA.

40 A bank shall assign following assets a 100% RSF factor:

a) all assets that are encumbered for a period of one year or more;

b) NSFR derivative assets net of NSFR derivative liabilities, if NSFR derivative assets are greater than NSFR derivative liabilities[23], where NSFR derivative assets are calculated in accordance with paragraphs 29 to 31 and NSFR derivative liabilities are calculated in accordance with paragraphs 16 and 17;

c) all other assets not included in paragraphs 32 to 38, including non-performing loans, loans to financial institutions with a residual maturity of one year or more, non-exchange-traded shares, fixed assets, items deducted from regulatory capital, retained interest, insurance assets, subsidiary interests and defaulted securities; and

d) 20% of derivative liabilities (that is negative replacement cost amounts) as calculated according to paragraph 16 before deducting variation margin posted.

(C) Interdependent Assets and Liabilities

41 A bank shall assign interdependent assets and liabilities a 0% RSF or ASF factor if they meet the following criteria:

a) the individual interdependent asset and liability items must be clearly identifiable;

b) the maturity and principal amount of both the liability and its interdependent asset are the same;

[22] Please refer to paragraphs 55-67 of the "Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring Tools".
[23] RSF = 100% x MAX ((NSFR derivative assets – NSFR derivative liabilities), 0).

c) the bank is acting solely as a pass-through unit to channel the funding received (the interdependent liability) into the corresponding interdependent asset; and

d) the counterparties for each pair of interdependent liabilities and assets are not the same.

(D) OBS exposures

42 Many potential OBS liquidity exposures require little direct or immediate funding but can lead to significant liquidity drains over a longer time horizon. The NSFR assigns an RSF factor to various OBS activities in order to ensure that institutions hold stable funding for the portion of OBS exposures that may be expected to require funding within a one-year horizon.

43 Consistent with the LCR, the NSFR identifies OBS exposure categories based broadly on whether the commitment is a credit or liquidity facility or some other contingent funding obligation. Table 3 in the Annex identifies the specific types of OBS exposures a bank shall assign to each OBS category and their associated RSF factor.

Frequency of Calculation and Reporting

44 A D-SIB shall prepare the appropriate all currency NSFR returns set out below as at the last calendar day of each quarter:

a) in the case of a D-SIB set out in paragraph 2(a), the bank's banking group level return and the entity-level return for each bank within the banking group;

b) in the case of a D-SIB set out in paragraph 2(b), the bank's entity-level return; and

c) in the case of a D-SIB set out in paragraph 2(c), the bank's country-level group level return and the entity-level return for each bank within the country-level group.

45 A D-SIB shall submit to the Authority the NSFR returns prepared in accordance with paragraph 44 not later than 30 calendar days immediately after the last day of each quarter.

Effective Date

46 This Notice, with the exception of paragraph 40(d), shall take effect on 1 January 2018. Paragraph 40(d) shall take effect on a date to be specified by the Authority by notice in writing, which shall be given at least 21 days before such date.

Annex

Table 1

Summary of liability categories and associated ASF factors

ASF factor	Components of ASF category
100%	• Total regulatory capital (excluding Tier 2 instruments with residual maturity of less than one year) • Other capital instruments and liabilities with effective residual maturity of one year or more
95%	• Stable non-maturity (demand) deposits and term deposits with residual maturity of less than one year provided by retail and small business customers
90%	• Less stable non-maturity deposits and term deposits with residual maturity of less than one year provided by retail and small business customers
50%	• Funding with residual maturity of less than one year provided by non-financial corporate customers • Operational deposits • Funding with residual maturity of less than one year from sovereigns, PSEs, and multilateral and national development banks • Other funding with residual maturity between six months and less than one year not included in the above categories, including funding provided by central banks and financial institutions
0%	• All other liabilities and equity not included in the above categories, including liabilities without a stated maturity (with a specific treatment for deferred tax liabilities and minority interests) • NSFR derivative liabilities net of NSFR derivative assets if NSFR derivative liabilities are greater than NSFR derivative assets • “Trade date” payables arising from purchases of financial instruments, foreign currencies and commodities

Table 2

Summary of asset categories and associated RSF factors

RSF factor	Components of RSF category
0%	• Coins and banknotes • All central bank reserves • All claims on central banks with residual maturities of less than six months • "Trade date" receivables arising from sales of financial instruments, foreign currencies and commodities.
5%	• Unencumbered Level 1 HQLA, excluding coins, banknotes and central bank reserves
10%	• Unencumbered loans to financial institutions with residual maturities of less than six months, where the loan is secured against Level 1 HQLA and where the bank has the ability to freely rehypothecate the received collateral for the life of the loan
15%	• All other unencumbered loans to financial institutions with residual maturities of less than six months not included in the above categories • Unencumbered Level 2A HQLA
50%	• Unencumbered Level 2B HQLA • HQLA encumbered for a period of six months or more and less than one year • Loans to financial institutions and central banks with residual maturities between six months and less than one year • Deposits held at other financial institutions for operational purposes • All other assets not included in the above categories with residual maturity of less than one year, including loans to non-financial corporate clients, loans to retail and small business customers, and loans to sovereigns and PSEs
65%	• Unencumbered residential mortgages with a residual maturity of one year or more and with a risk weight of less than or equal to 35% under MAS Notice 637's standardised approach to credit risk as set out in paragraph 7.3.29 of MAS Notice 637 • Other unencumbered loans not included in the above categories, excluding loans to financial institutions, with a residual maturity of one year or more and with a risk weight of less than or equal to 35% under MAS Notice 637's standardised approach to credit risk as set out in paragraphs 7.3.13 to 7.3.20 and paragraphs 7.3.24 to 7.3.26 of MAS Notice 637

85%	• Cash, securities or other assets posted as initial margin for derivative contracts and cash or other assets provided to contribute to the default fund of a CCP • Other unencumbered performing loans with risk weights greater than 35% under MAS Notice 637's standardised approach to credit risk as set out in paragraphs 7.3.13 to 7.3.20 and paragraphs 7.3.24 to 7.3.30 of MAS Notice 637 and residual maturities of one year or more, excluding loans to financial institutions • Unencumbered securities that are not in default and do not qualify as HQLA with a remaining maturity of one year or more and exchange-traded equities • Physical traded commodities, including gold
100%	• All assets that are encumbered for a period of one year or more • NSFR derivative assets net of NSFR derivative liabilities if NSFR derivative assets are greater than NSFR derivative liabilities • 20% of derivative liabilities as calculated according to paragraph 16[24] • All other assets not included in the above categories, including non-performing loans, loans to financial institutions with a residual maturity of one year or more, non-exchange-traded equities, fixed assets, items deducted from regulatory capital, retained interest, insurance assets, subsidiary interests and defaulted securities

[24] As set out in paragraph 46, this shall take effect on a date to be specified by the Authority by notice in writing.
[MAS Notice 652 (Amendment) 2017]

Table 3

Summary of off-balance sheet categories and associated ASF factors

RSF factor	RSF category
5% of currently undrawn portion	Irrevocable and conditionally revocable credit and liquidity facilities to any client
0% of currently undrawn portion	Unconditionally revocable credit and liquidity facilities
0% of currently undrawn portion	Trade finance-related obligations (including guarantees and letters of credit)
0% of currently undrawn portion	Guarantees and letters of credit unrelated to trade finance obligations
0% of currently undrawn portion	Non-contractual obligations such as: • potential requests for debt repurchases of the bank's own debt or that of related conduits, securities investment vehicles and other such financing facilities • structured products where customers anticipate ready marketability, such as adjustable rate notes and variable rate demand notes (VRDNs) • managed funds that are marketed with the objective of maintaining a stable value

Table 4

NSFR Reporting Template

Net Stable Funding Ratio ("NSFR")
THE MONETARY AUTHORITY OF SINGAPORE
THE BANKING ACT, CAP. 19 (SECTIONS 36 AND 55)

Cover page

Institution code		
Institution Name		
Reporting Cycle		(MM/YYYY)
Business Unit		
Currency	All currency	
Consolidated submission?		

Country level/Group details (if applicable):

Country level/Group name	
Country level/Group ID	

Institution codes
of entities in group:

1.	
2.	
3.	
4.	
5.	
6.	

Approved by:

(a) Name	
(b) Designation	
(c) Date (dd/mm/yyyy)	
(d) Person to contact for queries	
(e) Telephone number	
(f) Email address	

THE MONETARY AUTHORITY OF SINGAPORE
THE BANKING ACT, CAP. 19 (SECTIONS 36 AND 55)

Computation of Net Stable Funding Ratio ("NSFR")
(Name of bank)
As at close of business on (day/month/year)

A) Available Stable Funding ("ASF")

	Paragraph Number in MAS Notice 652	Amount (S$'000)			ASF factor			Calculated ASF (S$'000)			
		< 6 months	≥ 6 months to < 1 year	≥1 year	< 6 months	≥ 6 months to < 1 year	≥ 1 year	< 6 months	≥ 6 months to < 1 year	≥ 1 year	Total ASF
Tier 1 and Tier 2 capital, as set out in paragraphs 6.1.1 to 6.3.8 of MAS Notice 637, before the application of capital deductions and excluding the proportion of Tier 2 instruments with residual maturity of less than one year	6(a)						1.00				
Capital instruments not included above with an effective residual maturity of one year or more	6(b)						1.00				
"Stable" (as set out in FN 2 of MAS Notice 652) demand and/or term deposits from retail and small business customers	6(c), 7(a), 7(b)				0.95	0.95	1.00				
"Less stable" (as set out in FN 4 of MAS Notice 652) demand and/or term deposits from retail and small business customers	6(c), 8(a), 8(b)				0.90	0.90	1.00				
Unsecured funding from non-financial corporates, of which:	6(c), 9(a), 9(b)										
Operational deposit (as set out in paragraph 10 of MAS Notice 652)					0.50	0.50	1.00				
Non-operational deposit					0.50	0.50	1.00				
Non-deposit unsecured funding					0.50	0.50	1.00				
Unsecured funding from central banks, of which:	6(c), 9(b), 9(d), 11(a)										
Operational deposit (as set out in paragraph 10 of MAS Notice 652)					0.50	0.50	1.00				
Non-operational deposit					0.00	0.50	1.00				
Non-deposit unsecured funding					0.00	0.50	1.00				
Unsecured funding from sovereigns/PSEs/MDBs/NDBs, of which:	6(c), 9(b), 9(c)										
Operational deposit (as set out in paragraph 10 of MAS Notice 652)					0.50	0.50	1.00				
Non-operational deposit					0.50	0.50	1.00				
Non-deposit unsecured funding					0.50	0.50	1.00				
Unsecured funding from other legal entities (including financial corporates and financial institutions), of which:	6(c), 9(b), 9(d), 11(a)										
Operational deposit (as set out in paragraph 10 of MAS Notice 652)					0.50	0.50	1.00				
Non-operational deposit					0.00	0.50	1.00				
Non-deposit unsecured funding					0.00	0.50	1.00				
Deposits from members of the same cooperative network of banks which satisfy the criteria as set out in paragraph 15 of MAS Notice 652	6(c), 9(d), 11(a), 15				0.00	0.50	1.00				
Other deposits from members of a cooperative network of banks					0.00	0.50	1.00				

Secured borrowings and liabilities (including secured term deposits), of which are from:	6(c), 9(a), 9(c), 9(d), 11(a)										
Retail and small business customers					0.00	0.50	1.00				
Non-financial corporates					0.50	0.50	1.00				
Central banks					0.00	0.50	1.00				
Sovereigns/PSEs/MDBs/NDBs					0.50	0.50	1.00				
Other legal entities (including financial corporates and financial institutions)					0.00	0.50	1.00				
Derivatives:											
Derivative liabilities, gross of variation margin posted	16										
Of which are derivative liabilities where the counterparty is exempt from BCBS-IOSCO margin requirements, of which:											
Non-financial entities that are not systemically important											
Sovereigns/central banks/MDBs/BIS											
Total variation margin posted											
Of which is posted to counterparties exempted from BCBS-IOSCO margin requirements, of which:											
Non-financial entities that are not systemically important											
Sovereigns/central banks/MDBs/BIS											
NSFR derivative liabilities (derivative liabilities less total collateral posted as variation margin on derivative liabilities)	11(c), 16, 17, FN 13						0.00				
Total initial margin received, of which:											
Initial margin received in the form of cash											
Initial margin received in the form of Level 1 securities											
Initial margin received in the form of all other collateral											
Total initial margin received, in the form of any collateral type, according to residual maturity of associated derivative contract(s)											
Initial margin received, in the form of any collateral type, from counterparties exempt from BCBS-IOSCO margin requirements, of which:											
Non-financial entities that are not systemically important											
Sovereigns/central banks/MDBs/BIS											
Other liability and equity categories											
Deferred tax liabilities (DTLs)	11(b)				0.00	0.50	1.00				
Minority interest	11(b)				0.00	0.50	1.00				
Trade date payables	11(d)				0.00						
Interdependent liabilities	41				0.00	0.00	0.00				
All other liabilities and equity categories not included above	6(c), 9(d), 11(a), 11(b)				0.00	0.50	1.00				
Total ASF											

B) Required Stable Funding ("RSF")

1) On balance-sheet items

	Paragraph Number in MAS Notice 652	Amount (S$'000)			RSF factor			Calculated RSF (S$'000)			
		< 6 months	≥ 6 months to < 1 year	≥1 year	< 6 months	≥ 6 months to < 1 year	≥ 1 year	< 6 months	≥ 6 months to < 1 year	≥ 1 year	Total RSF
Coins and banknotes	32(a)				0.00						
Total central bank reserves	32(b)				0.00	0.00	0.00				
Of which are required central bank reserves					0.00	0.00	0.00				
Securities held where the institution has an offsetting reverse repurchase transaction when the security on each transaction has the same unique identifier (eg ISIN number or CUSIP) and such securities are reported on the balance sheet of the reporting institutions, of which:											
Unencumbered					0.00	0.00	0.00				
Encumbered, of which:											
Remaining period of encumbrance < 6 months					0.00	0.00	0.00				
Remaining period of encumbrance ≥ 6 months to < 1 year					0.00	0.00	0.00				
Remaining period of encumbrance ≥ 1 year					0.00	0.00	0.00				
Deposits held at other banks which are members of the same cooperative network of banks which satisfy the criteria as set out in paragraph 15 of MAS Notice 652	15, 25, 35(b), 36(c), 40(a), 40(c)				0.15	0.50	1.00				
Other deposits at other banks which are members of the same cooperative network of banks, of which:											
Unencumbered					0.15	0.50	1.00				
Encumbered, of which:											
Remaining period of encumbrance < 6 months					0.15	0.50	1.00				
Remaining period of encumbrance ≥ 6 months to < 1 year					0.50	0.50	1.00				
Remaining period of encumbrance ≥ 1 year					1.00	1.00	1.00				
Loans to financial institutions, of which:											
Loans to financial institutions secured by Level 1 collateral and where the bank has the ability to freely rehypothecate the received collateral for the life of the loan, of which:	25, 34, 36(c), 40(a), 40(c)										
Unencumbered					0.10	0.50	1.00				
Encumbered, of which:											
Remaining period of encumbrance < 6 months					0.10	0.50	1.00				
Remaining period of encumbrance ≥ 6 months to < 1 year					0.50	0.50	1.00				
Remaining period of encumbrance ≥ 1 year					1.00	1.00	1.00				
All other secured loans to financial institutions, of which:	25, 35(b), 36(c), 40(a), 40(c)										
Unencumbered					0.15	0.50	1.00				
Encumbered, of which:											
Remaining period of encumbrance < 6 months					0.15	0.50	1.00				
Remaining period of encumbrance ≥ 6 months to < 1 year					0.50	0.50	1.00				
Remaining period of encumbrance ≥ 1 year					1.00	1.00	1.00				
Unsecured loans to financial institutions, of which:	25, 35(b), 36(c), 40(a), 40(c)										
Unencumbered					0.15	0.50	1.00				

Encumbered, of which:											
Remaining period of encumbrance < 6 months					0.15	0.50	1.00				
Remaining period of encumbrance ≥ 6 months to < 1 year					0.50	0.50	1.00				
Remaining period of encumbrance ≥ 1 year					1.00	1.00	1.00				
Securities eligible as Level 1 HQLA as set out in paragraph 3 of MAS Notice 652, of which:	25, 33, 36(b), 40(a)										
Unencumbered					0.05	0.05	0.05				
Encumbered, of which:											
Remaining period of encumbrance < 6 months					0.05	0.05	0.05				
Remaining period of encumbrance ≥ 6 months to < 1 year					0.50	0.50	0.50				
Remaining period of encumbrance ≥ 1 year					1.00	1.00	1.00				
Securities eligible for Level 2A HQLA as set out in paragraph 3 of MAS Notice 652, of which:	25, 35(a), 36(b), 40(a)										
Unencumbered					0.15	0.15	0.15				
Encumbered, of which:											
Remaining period of encumbrance < 6 months					0.15	0.15	0.15				
Remaining period of encumbrance ≥ 6 months to < 1 year					0.50	0.50	0.50				
Remaining period of encumbrance ≥ 1 year					1.00	1.00	1.00				
Securities eligible for Level 2B HQLA as set out in paragraph 3 of MAS Notice 652, of which:	25, 36(a), 36(b), 40(a)										
Unencumbered					0.50	0.50	0.50				
Encumbered, of which:											
Remaining period of encumbrance < 6 months					0.50	0.50	0.50				
Remaining period of encumbrance ≥ 6 months to < 1 year					0.50	0.50	0.50				
Remaining period of encumbrance ≥ 1 year					1.00	1.00	1.00				
Deposits held at financial institutions for operational purposes, of which:	25, 36(d), 40(a)										
Unencumbered					0.50	0.50	1.00				
Encumbered, of which:											
Remaining period of encumbrance < 6 months					0.50	0.50	1.00				
Remaining period of encumbrance ≥ 6 months to < 1 year					0.50	0.50	1.00				
Remaining period of encumbrance ≥ 1 year					1.00	1.00	1.00				
Loans to non-financial corporate clients with a residual maturity of less than one year, of which:	25, 36(e), 40(a)										
Unencumbered					0.50	0.50					
Encumbered, of which:											
Remaining period of encumbrance < 6 months					0.50	0.50					
Remaining period of encumbrance ≥ 6 months to < 1 year					0.50	0.50					
Remaining period of encumbrance ≥ 1 year					1.00	1.00					
Loans to central banks with a residual maturity of less than one year, of which:	25, 32(c), 36(c), 40(a)										
Unencumbered					0.00	0.50					
Encumbered, of which:											
Remaining period of encumbrance < 6 months					0.00	0.50					
Remaining period of encumbrance ≥ 6 months to < 1 year					0.50	0.50					
Remaining period of encumbrance ≥ 1 year					1.00	1.00					

Loans to sovereigns, PSEs, MDBs and NDBs with a residual maturity of less than one year, of which:	25, 36(e), 40(a)										
Unencumbered					0.50	0.50					
Encumbered, of which:											
Remaining period of encumbrance < 6 months					0.50	0.50					
Remaining period of encumbrance ≥ 6 months to < 1 year					0.50	0.50					
Remaining period of encumbrance ≥ 1 year					1.00	1.00					
Residential mortgages of any maturity that would qualify for the 35% or lower risk weight under MAS Notice 637's standardised approach for credit risk, of which:	25, 36(e), 37(a), 40(a)										
Unencumbered					0.50	0.50	0.65				
Encumbered, of which:											
Remaining period of encumbrance < 6 months					0.50	0.50	0.65				
Remaining period of encumbrance ≥ 6 months to < 1 year					0.50	0.50	0.65				
Remaining period of encumbrance ≥ 1 year					1.00	1.00	1.00				
Other loans, excluding loans to financial institutions, with a residual maturity of one year or greater that would qualify for the 35% or lower risk weight under MAS Notice 637's standardised approach for credit risk, of which:	25, 37(b), 40(a)										
Unencumbered							0.65				
Encumbered, of which:											
Remaining period of encumbrance < 6 months							0.65				
Remaining period of encumbrance ≥ 6 months to < 1 year							0.65				
Remaining period of encumbrance ≥ 1 year							1.00				
Loans to retail and small business customers (excluding residential mortgages reported above) with a residual maturity of less than one year, of which:	25, 36(e), 40(a)										
Unencumbered					0.50	0.50					
Encumbered, of which:											
Remaining period of encumbrance < 6 months					0.50	0.50					
Remaining period of encumbrance ≥ 6 months to < 1 year					0.50	0.50					
Remaining period of encumbrance ≥ 1 year					1.00	1.00					
Performing loans (except loans to financial institutions and loans reported in above categories) with risk weights greater than 35% under MAS Notice 637's standardised approach for credit risk, of which:	25, 36(e), 38(b), 40(a)										
Unencumbered					0.50	0.50	0.85				
Encumbered, of which:											
Remaining period of encumbrance < 6 months					0.50	0.50	0.85				
Remaining period of encumbrance ≥ 6 months to < 1 year					0.50	0.50	0.85				
Remaining period of encumbrance ≥ 1 year					1.00	1.00	1.00				
Non-HQLA exchange traded equities, of which:	25, 38(c), 40(a)										
Unencumbered							0.85				
Encumbered, of which:											
Remaining period of encumbrance < 6 months							0.85				
Remaining period of encumbrance ≥ 6 months to < 1 year							0.85				

Remaining period of encumbrance ≥ 1 year								1.00				
Non-HQLA securities not in default, of which:	25, 36(e), 38(c), 40(a)											
Unencumbered						0.50	0.50	0.85				
Encumbered, of which:												
Remaining period of encumbrance < 6 months						0.50	0.50	0.85				
Remaining period of encumbrance ≥ 6 months to < 1 year						0.50	0.50	0.85				
Remaining period of encumbrance ≥ 1 year						1.00	1.00	1.00				
Physical traded commodities including gold, of which:	25, 38(d), 40(a)											
Unencumbered								0.85				
Encumbered, of which:												
Remaining period of encumbrance < 6 months								0.85				
Remaining period of encumbrance ≥ 6 months to < 1 year								0.85				
Remaining period of encumbrance ≥ 1 year								1.00				
Other short-term unsecured instruments and transactions with a residual maturity of less than one year, of which:	25, 36(e), 40(a)											
Unencumbered						0.50	0.50					
Encumbered, of which:												
Remaining period of encumbrance < 6 months						0.50	0.50					
Remaining period of encumbrance ≥ 6 months to < 1 year						0.50	0.50					
Remaining period of encumbrance ≥ 1 year						1.00	1.00					
Defaulted securities and non-performing loans	40(c)					1.00	1.00	1.00				
Derivatives:												
Derivative assets, gross of variation margin received												
Of which are derivative assets where the counterparty is exempt from BCBS-IOSCO margin requirements, of which:												
Non-financial entities that are not systemically important												
Sovereigns/central banks/MDBs/BIS												
Variation margin received, of which:												
Cash variation margin received, meeting conditions as specified in paragraph 2.11 in Annex 4A of MAS Notice 637												
Of which is received from counterparties exempted from BCBS-IOSCO margin requirements, of which:												
Non-financial entities that are not systemically important												
Sovereigns/central banks/MDBs/BIS												
Other variation margin received												
Of which is received from counterparties exempted from BCBS-IOSCO margin requirements												
Non-financial entities that are not systemically important												
Sovereigns/central banks/MDBs/BIS												

NSFR derivative assets (derivative assets less cash collateral received as variation margin on derivative assets)	29, 30, 31, FN 19, 40(b)						1.00				
Required stable funding associated with derivative liabilities (See item 4 of Notes for completion)	40(d)						0.00				
Total initial margin posted, of which:											
Initial margin posted on bank's own positions, of which:	38(a)										
Initial margin posted in the form of cash											
Initial margin posted in the form of Level 1 securities											
Initial margin posted in the form of all other collateral											
Initial margin posted on behalf of a customer											
Initial margin posted on bank's own positions, in the form of any collateral type, according to residual maturity of associated derivative contract(s)											
Initial margin posted on bank's own positions, in the form of any collateral type, to counterparties exempt from BCBS-IOSCO margin requirements, of which:											
Non-financial entities that are not systemically important											
Sovereigns/central banks/MDBs/BIS											
Cash or other assets provided to contribute to the default fund of a CCP	38(a)										
Required stable funding associated with initial margin posted and cash or other assets provided to contribute to the default fund of a CCP	38(a)						0.85				
Items deducted from regulatory capital	40(c)				1.00	1.00	1.00				
Trade date receivables	32(d)				0.00						
Interdependent assets	41				0.00	0.00	0.00				
All other assets not included in above categories that qualify for 100% treatment	40(c)				1.00	1.00	1.00				
On balance-sheet RSF (Section B)											
On balance-sheet RSF (Section B and Section D)											

2) Off balance-sheet items

	Paragraph Number in MAS Notice 652	Amount (S$'000)	RSF factor	Calculated RSF (S$'000)
Irrevocable or conditionally revocable liquidity facilities	43		0.05	
Irrevocable or conditionally revocable credit facilities	43		0.05	
Unconditionally revocable liquidity facilities	43		0.00	
Unconditionally revocable credit facilities	43		0.00	
Trade finance-related obligations (including guarantees and letters of credit)	43		0.00	
Guarantees and letters of credit unrelated to trade finance obligations	43		0.00	
Non-contractual obligations, of which:	43			
Debt-buy back requests (incl related conduits)	43		0.00	

	Paragraph Number in MAS Notice 652	Amount (S$'000)	RSF factor	Calculated RSF (S$'000)
Structured products	43		0.00	
Managed funds	43		0.00	
Other non-contractual obligations	43		0.00	
All other off balance-sheet obligations not included in the above categories	43		0.00	
Off balance-sheet RSF				
Total RSF (Section B and Section D)				

C) NSFR for each month-end

Reporting Month	NSFR	Total ASF (S$'000)	Total RSF (S$'000)
1			
2			
3			

D) For completion only by banks with assets encumbered for exceptional central bank liquidity operations
Note: Values reported in this section should not be reported in Section B above.

	Paragraph Number in MAS Notice 652	Amount (S$'000)			RSF factor			Calculated RSF (S$'000)			
		< 6 months	≥ 6 months to < 1 year	≥1 year	< 6 months	≥ 6 months to < 1 year	≥ 1 year	< 6 months	≥ 6 months to < 1 year	≥ 1 year	Total RSF
Securities held where the institution has an offsetting reverse repurchase transaction when the security on each transaction has the same unique identifier (eg ISIN number or CUSIP) and such securities are reported on the balance sheet of the reporting institutions	25, FN 16										
Of which are encumbered for exceptional central bank liquidity operations, of which:											
Remaining period of encumbrance ≥ 6 months to < 1 year					0.00	0.00	0.00				
Remaining period of encumbrance ≥ 1 year					0.00	0.00	0.00				
Loans to financial institutions, of which:	25, FN 16										
Secured by Level 1 collateral and where the bank has the ability to freely rehypothecate the received collateral for the life of the loan											
Of which are encumbered for exceptional central bank liquidity operations, of which:											
Remaining period of encumbrance ≥ 6 months to < 1 year					0.10	0.50	1.00				
Remaining period of encumbrance ≥ 1 year					0.10	0.50	1.00				
All other secured loans to financial institutions											
Of which are encumbered for exceptional central bank liquidity operations, of which:											
Remaining period of encumbrance ≥ 6 months to < 1 year					0.15	0.50	1.00				
Remaining period of encumbrance ≥ 1 year					0.15	0.50	1.00				
Unsecured											
Of which are encumbered for exceptional central bank liquidity operations, of which:											

Remaining period of encumbrance ≥ 6 months to < 1 year					0.15	0.50	1.00				
Remaining period of encumbrance ≥ 1 year					0.15	0.50	1.00				
Securities eligible as Level 1 HQLA as set out in paragraph 3 of MAS Notice 652	25, FN 16										
Of which are encumbered for exceptional central bank liquidity operations, of which:											
Remaining period of encumbrance ≥ 6 months to < 1 year					0.05	0.05	0.05				
Remaining period of encumbrance ≥ 1 year					0.05	0.05	0.05				
Securities eligible for Level 2A HQLA as set out in paragraph 3 of MAS Notice 652	25, FN 16										
Of which are encumbered for exceptional central bank liquidity operations, of which:											
Remaining period of encumbrance ≥ 6 months to < 1 year					0.15	0.15	0.15				
Remaining period of encumbrance ≥ 1 year					0.15	0.15	0.15				
Securities eligible for Level 2B HQLA as set out in paragraph 3 of MAS Notice 652	25, FN 16										
Of which are encumbered for exceptional central bank liquidity operations, of which:											
Remaining period of encumbrance ≥ 6 months to < 1 year					0.50	0.50	0.50				
Remaining period of encumbrance ≥ 1 year					0.50	0.50	0.50				
Deposits held at financial institutions for operational purposes	25, FN 16										
Of which are encumbered for exceptional central bank liquidity operations, of which:											
Remaining period of encumbrance ≥ 6 months to < 1 year					0.50	0.50	1.00				
Remaining period of encumbrance ≥ 1 year					0.50	0.50	1.00				
Loans to non-financial corporate clients with a residual maturity of less than one year	25, FN 16										
Of which are encumbered for exceptional central bank liquidity operations, of which:											
Remaining period of encumbrance ≥ 6 months to < 1 year					0.50	0.50					
Remaining period of encumbrance ≥ 1 year					0.50	0.50					
Loans to central banks with a residual maturity of less than one year	25, FN 16										
Of which are encumbered for exceptional central bank liquidity operations, of which:											
Remaining period of encumbrance ≥ 6 months to < 1 year					0.00	0.50					
Remaining period of encumbrance ≥ 1 year					0.00	0.50					
Loans to sovereigns, PSEs, MDBs and NDBs with a residual maturity of less than one year	25, FN 16										
Of which are encumbered for exceptional central bank liquidity operations, of which:											
Remaining period of encumbrance ≥ 6 months to < 1 year					0.50	0.50					
Remaining period of encumbrance ≥ 1 year					0.50	0.50					

Residential mortgages of any maturity that would qualify for the 35% or lower risk weight under MAS Notice 637's standardised approach for credit risk	25, FN 16										
Of which are encumbered for exceptional central bank liquidity operations, of which:											
Remaining period of encumbrance ≥ 6 months to < 1 year					0.50	0.50	0.65				
Remaining period of encumbrance ≥ 1 year					0.50	0.50	0.65				
Other loans, excluding loans to financial institutions, with a residual maturity of one year or greater that would qualify for the 35% or lower risk weight under MAS Notice 637's standardised approach for credit risk	25, FN 16										
Of which are encumbered for exceptional central bank liquidity operations, of which:											
Remaining period of encumbrance ≥ 6 months to < 1 year							0.65				
Remaining period of encumbrance ≥ 1 year							0.65				
Loans to retail and small- and medium-sized entities (SME) (excluding residential mortgages reported above) with a residual maturity of less than one year	25, FN 16										
Of which are encumbered for exceptional central bank liquidity operations, of which:											
Remaining period of encumbrance ≥ 6 months to < 1 year					0.50	0.50					
Remaining period of encumbrance ≥ 1 year					0.50	0.50					
Performing loans (except loans to financial institutions and loans reported in above categories) with risk weights greater than 35% under MAS Notice 637's standardised approach for credit risk	25, FN 16										
Of which are encumbered for exceptional central bank liquidity operations, of which:											
Remaining period of encumbrance ≥ 6 months to < 1 year					0.50	0.50	0.85				
Remaining period of encumbrance ≥ 1 year					0.50	0.50	0.85				
Non-HQLA exchange traded equities	25, FN 16										
Of which are encumbered for exceptional central bank liquidity operations, of which:											
Remaining period of encumbrance ≥ 6 months to < 1 year							0.85				
Remaining period of encumbrance ≥ 1 year							0.85				
Non-HQLA securities not in default	25, FN 16										
Of which are encumbered for exceptional central bank liquidity operations, of which:											
Remaining period of encumbrance ≥ 6 months to < 1 year					0.50	0.50	0.85				
Remaining period of encumbrance ≥ 1 year					0.50	0.50	0.85				
Physical traded commodities including gold	25, FN 16										
Of which are encumbered for exceptional central bank liquidity operations, of which:											
Remaining period of encumbrance ≥ 6 months to < 1 year							0.85				
Remaining period of encumbrance ≥ 1 year							0.85				

Other short-term unsecured instruments and transactions with a residual maturity of less than one year	25, FN 16										
Of which are encumbered for exceptional central bank liquidity operations, of which:											
Remaining period of encumbrance ≥ 6 months to < 1 year					0.50	0.50					
Remaining period of encumbrance ≥ 1 year					0.50	0.50					
Total RSF (Section D)											

Notes for completion

1. The bank shall fill in the form in thousands of Singapore dollars (S$’000). Where amounts are in foreign currency, the bank shall report the Singapore Dollar equivalent. Internal FX rates may be used.
2. For Sections A, B and D, the bank shall report the figures as of the last day of the reporting quarter. For Section C, the bank shall report the figures as of the last day of each month within the reporting quarter.
3. The bank shall fill in all blank cells in the form. If the bank does not have exposures in a particular category, please enter ‘0’.
4. As set out in paragraph 46 of MAS Notice 652, the Required Stable Funding add-on for derivative liabilities shall take effect on a date to be specified by the Authority by notice in writing.

[MAS Notice 652 (Amendment) 2017]